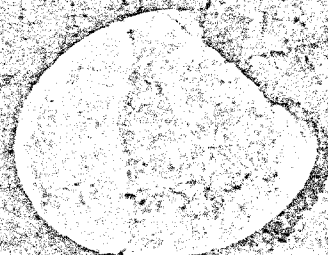


3rd Madras

1950

78754

78754



செப்பனிலுத்தற்காக எடுத்த
கொள்ளப்பட்ட

மாதம் வருடம்

செப்பனிலு முடித்த

மாதம் வருடம்

பிராயச்சி உதவியாளரின்

கையெழுத்தம்

Vol. IV, No.

by the Director of Information and Publicity
Fort St. George

TO SERVE AND NOT TO COMPETE"

January 1950

NEWS AND NOTES

What A Welfare Association Can Do

The Pudupet General Welfare Committee and other welfare Associations in the area carried on street cleaning campaign in the slum areas in the Pudupet Village recently. The Committee and other Associations have been doing excellent work among the Harijans of the place by conducting cinema shows, meetings, etc., and by carrying on street cleaning campaigns as frequently as possible. The Hon'ble Speaker of the Assembly and the wife of the Hon'ble Minister for Education are closely connected with the General Welfare Committee. They continue to take keen interest in the welfare of the slum dwellers. The Special Development Officer and ameliorative staff visit the slums often and carry on propaganda among the people. The Propaganda staff with the aid of the van did

useful work. The Corporation authorities, Corporation Councillors and other eminent leaders took part in the street cleaning campaign. All that is possible to ameliorate the conditions of the people was and is being done by the Pudupet General Welfare Committee.

On 29th September 1949 the said Committee and other Welfare Associations and Leagues arranged to have street cleaning campaign in the morning. The local Municipal Councillor, Health staff of the Corporation and other leaders took part in the work. The Special Development Officer and his staff actively assisted the Welfare Committee in conducting the campaign. The propaganda van of the Special Development Officer entertained the public with good music, radio news, etc., and the speakers who

addressed the people in several places used the mike. Thousands of people attended the function. There was a big procession and school children and others carried placards, flags, etc., and shouted slogans connected with Sanitation, Health, Savings, Education, etc.

The Welfare Committee and other Associations distributed milk to the children who numbered about one thousand. The function was a great success and the slum dwellers were very much impressed with the way in which the street cleaning campaign and propaganda meetings were carried on in their areas. They promised to follow the instructions given to them. They were delighted to hear the good music given by the Government propaganda van.

Fillip To Jaggery Industry

An appeal to put into practice in the villages what they have learnt at the Central Palm Gur Training School, Cuddalore, and to help the villagers in improving the methods of jaggery production so that the producer may get a greater return for his labour was made by the Hon'ble the Premier of Madras in the course of his address to the trainees who completed their training in the Central Palm Gur Training School, Cuddalore, South Arcot district, on 3rd December 1949. The trainees, who numbered twenty-two were deputed by the Madras Government to undergo the training in the school, under the sanction for the development

of Palm Gur Industry in the Province. The scheme provides for the training of 25 Palm Gur Instructors, who in their turn will train 1,000 ex-toddy tappers in improved methods of jaggery. The total cost involved in the scheme is Rs. 1.23 lakhs under recurring and Rs. 1,625 under non-recurring expenditure. Twenty-two candidates selected for appointment as Palm Gur Instructors underwent training in the Central Palm Gur Training School at Cuddalore from 1st August 1949 and the training came to a close on 30th November 1949. They have been posted to work in the districts. The Palm Gur Instructors will train the ex-toddy tappers in their own villages and

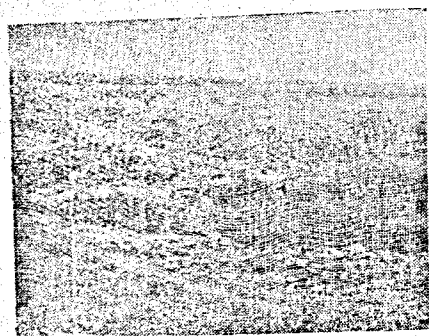
in their homes while they are conducting their usual process of tapping and manufacturing gur. Each Instructor will stay in a village and train at least 5 or 6 tappers in about a month. Within a palmraha tapping season of about four months, it is proposed to train at least 500 ex-toddy tappers. Five hundred more are expected to be trained in the remaining part of the year in the manufacture of jaggery out of the sweet juice of coconut, date, sago and palm trees. To enable the ex-toddy tappers to have the use of necessary equipment for adopting improved methods, open iron shallow pans with fire gratings, improved stirrers and other necessary equipment are to be

NEWS AND NOTES

In Mathurai Municipality it will be possible to manufacture 18,000 tons of Town compost per year which could be utilized for manuring 3,600 acres of paddy lands. In other words 7,200

maunds of paddy will be made available over and above the present outturn of paddy from 3,600 acres bordering the portions of the Mathurai Municipal limits.

RIPE COMPOST IN TRENCHES PREPARED AS PER BANGALORE PROCESS.



A view of the ripe compost in trenches ready for distribution to ryots. In one trench a portion of the compost is removed and in the background there are trenches with the dome shape maintained over trenches till they are opened out for sale.

RYOTS REMOVING RIPE COMPOST FROM TRENCH AND LOADING IN THEIR CARTS.



Compost removed from the trench and put over ground is being taken in baskets and emptied into the double-bullock cart.

ANOTHER SET OF RYOTS REMOVING RIPE COMPOST FROM A TRENCH.



A view of the compost trench from which ryots are removing compost for being loaded in double-bullock carts.

A MUNICIPAL LORRY WITH SWEEPINGS BEING UNLOADED IN THE DEPOT GROUND.



A view of the rubbish lorries belonging to Mathurai Municipality being emptied at the depot ground and the rubbish taken in baskets.

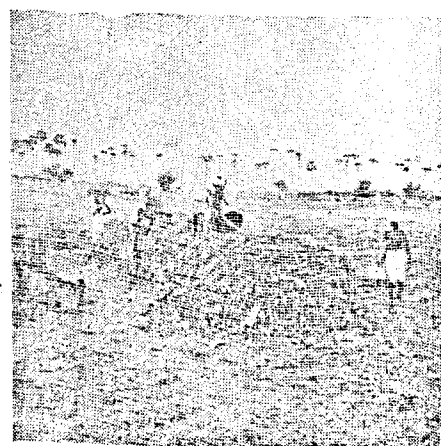
It is up to the other municipalities in the Province to emulate the Mathurai Municipality.

SWEEPINGS AND REFUSE COMPOSTED IN HEAPS AS PER BANGALORE PROCESS IN LOW-LYING AREAS OF THE DEPOT GROUND.



In the low-lying area of the Mathuras depot ground heap method of compost as per Bangalore process is also adopted. Heaps are being taken up for being formed in regular shape. Foreign matter such as glass, stones, etc., are removed before rubbish is put in heaps or trenches.

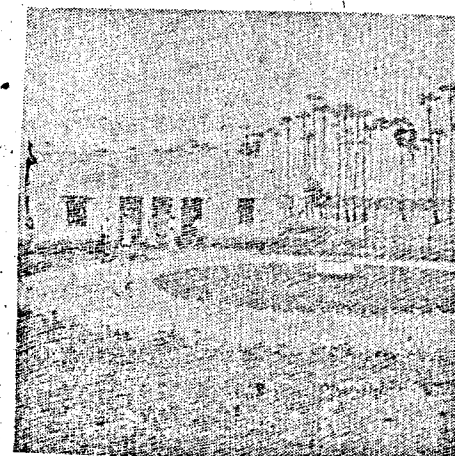
FINISHING STAGE OF A HEAP METHOD.



The finishing stage of a heap in which rubbish is being emptied over the top-most layers of the heap for getting the perfect dome shape.

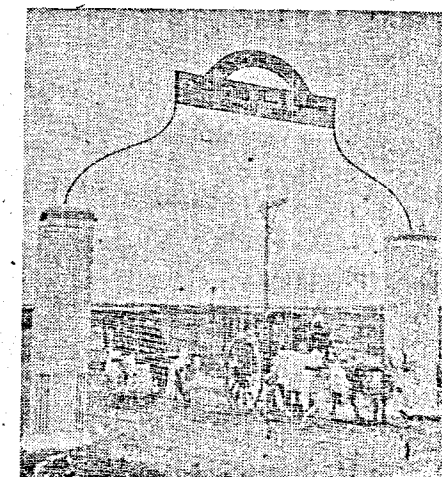
NEWS AND NOTES

COMPOST OFFICE OF THE MATHURAI MUNICIPALITY.



The compost building where all tools and appliances are kept and the Sanitary Inspector and his staff also have office rooms.

RYOTS LEAVING THE MATHURAI DEPOT WITH TOWN COMPOST IN THEIR CARTS.



The compost depot: Front gate of the depot ground of the Mathurai Municipality, through which the ryots are just taking out the carts filled with compost.

Separation of Judiciary from Executive

The Government of Madras have ordered the introduction, with effect from January, 1950, of the scheme for the separation of the judiciary from the executive, in the districts of Anantapur, Bellary, Chittoor and Tirunelveli. [December 12, 1949].

Helping Nutrition

The policy of the Government is to revive the hand-pounding of paddy with a view to conserve the maximum nutritive value of rice by discouraging the milling of paddy as much as possible. In pursuance of this policy, the Government have decided not to issue licences under the Madras Rice Mills Licensing Order, 1947, to new rice mills in future. Necessary instructions in the matter have been issued to all Collectors who are the licensing authorities under the Madras Rice Mills Licensing Order, 1947.

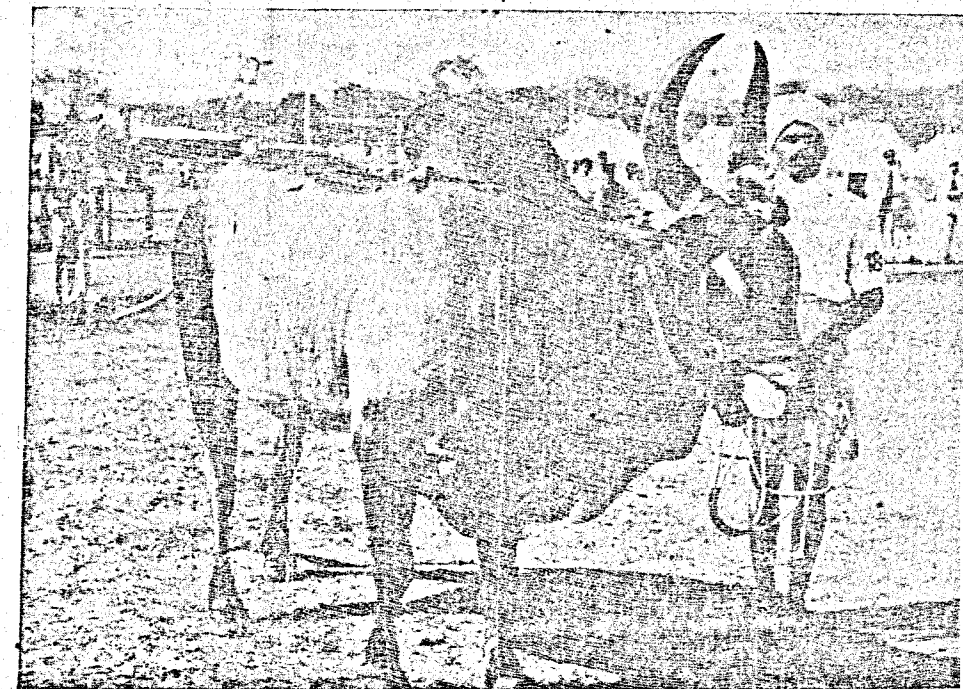
[December 12 1949]

Improvement Of Cattle Wealth

How goshalas and pinjrapoles, those traditional institutions of India which look after the old and infirm cattle, can render more useful service in cattle welfare is dealt with comprehensively in a brochure just published by the Central Ministry of Agriculture.

The present position of goshalas, their origin, future potentialities, the best method of reorganizing them and model schemes for goshala development are among the many subjects discussed in the brochure from an expert angle.

Although India has nearly 25 per cent of the world's cattle population, milk production based on per capita consumption is the lowest as compared to other countries. India's 3,000 goshalas and pinjrapoles, housing about 6 lakhs of cattle at an average annual cost of Rs. 6 crores, the brochure points out, can play a substantial part in cattle welfare. While a majority of the animals in the goshalas are, no doubt, old, infirm and unproductive,



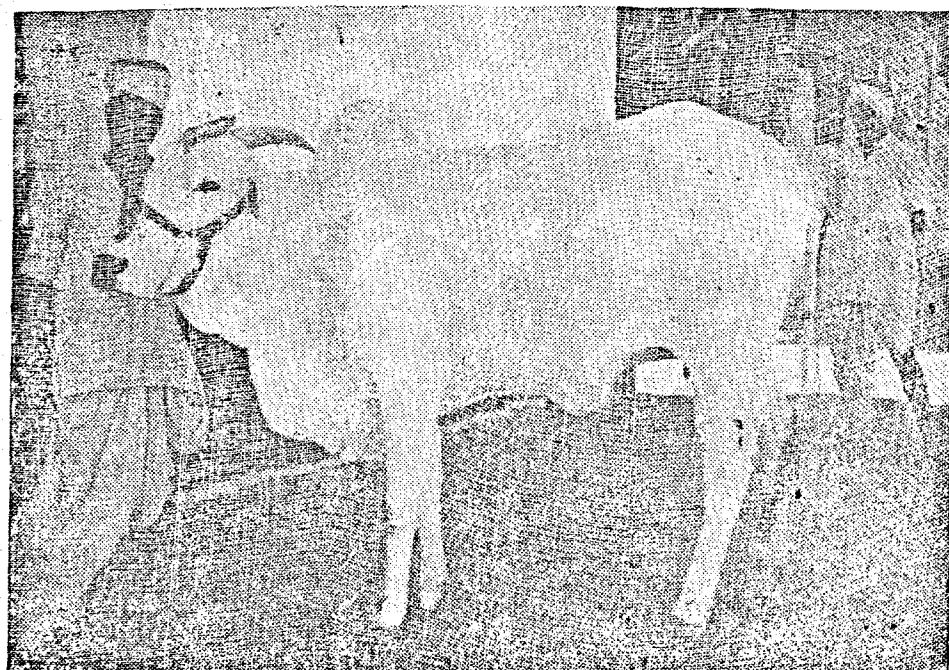
NEWS AND NOTES

it has been estimated that about 40 per cent are fit for milk and breeding. With proper management, these animals which are, at present, a burden can be made useful for the country's benefit.

The brochure indicates the action so far taken by the Government of India since the establishment of the Cattle Utilization Section in the Ministry of Agriculture and furnishes factual details as to how with better management and proper training of cattle welfare workers, these institutions could play a more effective role in the improvement of Indian cattle.

"MADRAS INFORMATION"

From this issue onwards MADRAS INFORMATION will appear as a monthly. The subscription will be Rs. 2-4-0 for a year and 3 annas per copy.



NUTRITION

Your Questions Answered

Q. 1.—What is the basis of arriving at a balanced diet?

Some authors suggest that the diet is based on the number of calories consumed per day, whereas some others suggest that it should be balanced with respect to proteins, minerals and vitamins too. Which view are we to take as correct?

Answer

When balancing the diet, attention should be paid to the following three classes of foods:—

(1) Energy-giving foods: the starches, the sugars and the fats, e.g., cereals, sugars, fats and oils.

(2) Body-building foods: the proteins and minerals like calcium, phosphorus, iron, etc., e.g., eggs, milk, meat, pulses, nuts, etc.

(3) Protective foods: vitamins and mineral salts, e.g., fresh vegetables and fruits.

Each one of the above three classes of foods is different from the others in its constitution and hence in its functions. The energy-yielding foods, for example, cannot be utilized for body-building purposes, due to the absence in them of Nitrogen, an essential constituent of living cells. Similarly, the protective foods cannot yield the energy necessary for the functioning of the body. Therefore, the diet should be balanced not only with respect to calories but also the necessary proteins, vitamins and minerals.

Q. (2).—What percentage of vitamin B-1 contained in the rice grain is present in the gruel (rice water) of the following four types of rice? In order to avoid loss of vitamin B-1, how should rice be cooked?

- (1) Rice, home-pounded.
- (2) Rice, parboiled, home-pounded
- (3) Rice, milled.
- (4) Rice, parboiled, milled.

Answer

The percentage of vitamin B-1 in the gruel is not a constant quantity and depends on factors like amount of water used during the cooking, the time for which the rice is cooked, etc. However, the mean loss of vitamin B-1 in the four varieties, as determined at the Nutrition Research Laboratories, Coonoor, is given below:—

Vitamin B-1 (Thiamine) content of gruel [expressed as percentage of the total Thiamine (Vitamin B-1) content of the rice grain] :—

	PER CENT.
(1) Raw, home-pounded.	33
(2) Raw, milled ..	30
(3) Parboiled, home-pounded.	30
(4) Parboiled, milled ..	15

During the parboiling a portion of the vitamin B-1 diffuses into the interior of the grain and hence the content of

NUTRITION

vitamin B-1, as also of some of the other nutrients is less in the gruel in the case of parboiled rice than in the case of raw rice.

Since Vitamin B-1 is lost in the rice water during cooking, it is always advisable to cook rice in the minimum quantity of water so that the "Kanji" or rice water is absorbed and not thrown away.

Q. 3.—What are the requirements of the different food materials, carbohydrates, fats, proteins, minerals and vitamins as worked out for children of different ages in India? Do the figures from other countries hold good for our country?

Answer

The energy requirements of people living in a tropical country like ours are lower than the International Standards, which are generally based on results of experiments carried out in countries colder than ours. In this connexion, Dr. W. R. Aykroyd, formerly Director of the Nutrition Research Laboratories and till lately

one of the foremost Nutritionists of our country, has worked out certain rough figures for the energy and protein requirements of the different sections of people. The figures are reproduced below:—

Requirement of Energy.

	CALORIES.
Adult male (over 14)	2,600
Adult female (over 14)	2,100
Child (12 and 13) ..	2,100
Do. (10 and 11) ..	1,800
Do. (8 and 9) ..	1,600
Do. (6 and 7) ..	1,300
Do. (4 and 5) ..	1,000

Requirement of Protein.

	GRAMS.
Man (18 to 60) ..	65
Woman (18 to 60) ..	55
Boy (10 to 17) ..	80
Do. (6 to 9) ..	70
Do. (2 to 6) ..	40 to 50

As regards requirements of vitamins and minerals no special values have been worked out for Indians. The

international standards like the recommendations of the League of Nations or the National Research Council of U.S.A. can be taken to apply to this country too, as they generally allow a margin of safety.

Q. 4.—Milk is said to lose the water-soluble vitamins when heated. Does the evaporated water from milk contain these vitamins?

Answer

Evaporated water from the milk does not contain the water-soluble vitamins. The activity of these vitamins depends on their structure and internal arrangement. Heating alters this arrangement by splitting up the different components, or by adding oxygen from the air to these substances, thus destroying their structure and activity. Just as the broken pieces of a key can no more be useful for that lock, similarly the split parts of the vitamin or its changed structure makes it lose all its vitamin activity, though the changed substance remains in the milk itself.

—Food and Nutrition.

Value Of Millets



During his recent visit the Governor-General inaugurated the non-rice canteen at Madras.

"You should look upon the advice to take millet as part of your food not merely as advice given because of the short supply of rice, but because of the deficiency of nutrition in South India. If you take it in that spirit and follow it, it will be good for all of us. It will help us to supply rice to the growing population. The upper classes should set an example in eating food which has been hitherto considered as the staple food for only the poorest classes."

So observed H. E. the Governor-General Sri C. Rajagopalachariar, inaugurating the Non-Rice Demonstration Centre at Seva Mandiram organized by the Madras Provincial Consumers' Association in Triplicane recently.

The demonstration was conducted by the staff and students of Lady Willingdon Training College, Queen Mary's College and Women's Christian College. Maize, prepared according

to Rajaji's recipe, was a special feature of the demonstration.

The nutritive value of millets is not widely known. It is an elementary fact that nutritious food increases the power of resistance to diseases and to that extent operates as a check on the high rate of mortality in this country. It is purely for this reason that public health experts emphasize the importance of nutritive food and balanced diet as factors contributing to raise the level of public health of this country. It has also to be pointed out that any amount of preaching will not go far enough unless the people take care to adhere to instructions in the matter.

(Continued on page 21)

Discipline is learnt in the school of adversity.

MAHATMAJI

AGRICULTURE

An Organization To fight Famine And Hunger

The activities of the Food and Agricultural Organization are frequently in the news. But it is very doubtful whether many know in detail the wonderful work which this Organization is doing in a war-weary world. It is the greatest peace-time effort and is designed to solve the perennial problem of hunger and mal-nutrition. It is out to fight famine in every clime and hunger in every race.

Recently a flood of light on the working of this Organization was thrown by Hon'ble Mr. Roche Victoria in the course of a broadcast from the A.I.R., Madras. It is essential that factual details of this Organization are known to everybody.

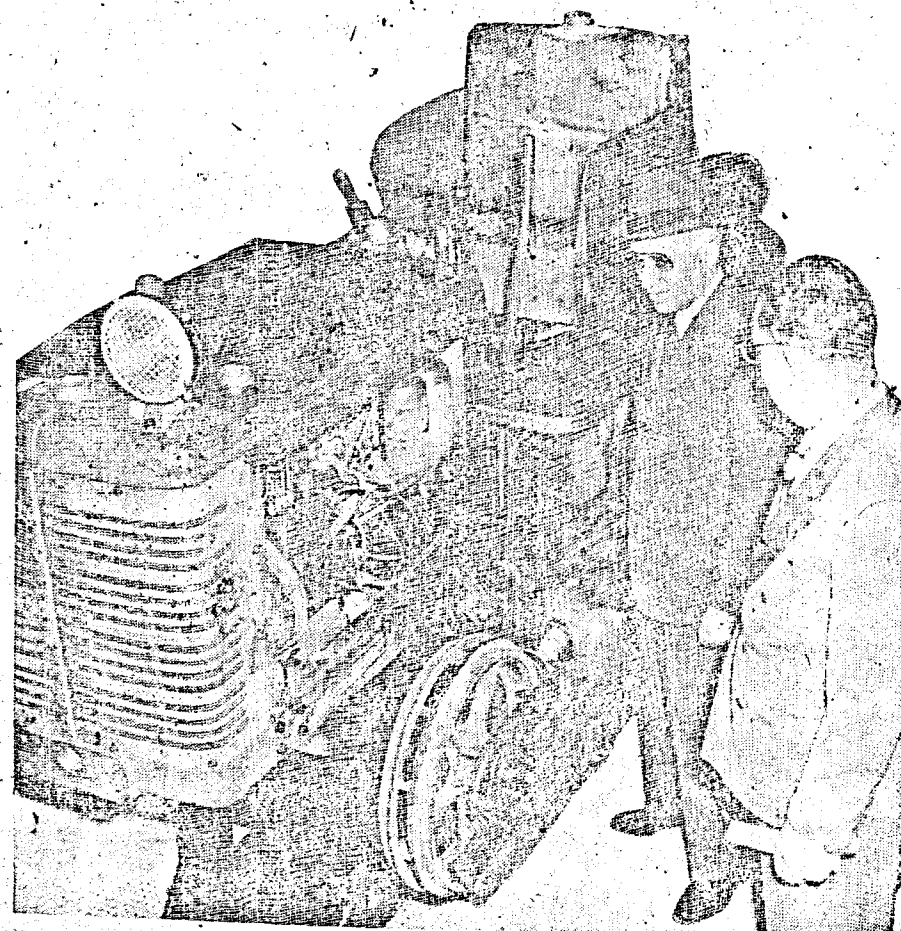
"The Food and Agriculture Organization owes its origin to one of the Four Freedoms of the Atlantic Charter, the Freedom from want. It was at the Hot Springs Conference of the United Nations held in May 1943 that the idea of a Food and Agriculture Organization was born. An interim Commission set up in July 1943 drew up plans for a permanent organization which would deal not only with food and agriculture but with forestry and fisheries as well. The Food and Agriculture Organization officially came into being when its constitution was signed by more than 20 Governments whose representatives met at a Conference on October 16, 1945. Since then, it has become one of the most important members of the United Nations family.

"The Food and Agriculture Organization consists of a Conference, an Executive Committee, later, christened as Council, and a Director-General assisted by an international staff. The Conference is composed of one representative from each of the 58 member-nations. Each nation has one vote in the Conference and it meets at least once in each year to review the work of the Organization. The Conference determines the policy and approves the budget of the Organization. The Council consisting of representatives of 18 member-nations, elected by the Conference, acts on behalf of all member-nations and is responsible to the Conference. It also supervises and helps to co-ordinate the work of

member-Governments in the spheres of production, consumption and distribution of food and agricultural products. The first Director-General was Lord Boyd Orr, a Nobel Laureate and an international authority on Food and Nutrition. The Food and Agriculture Organization has its headquarters in Washington. It is neither a charitable nor an ad hoc organization like the UNRRA. On the other hand, it is a permanent organization with a wide range of functions, all designed to provide the population of the world with a better and larger supply of food.

"The world is to-day hungry and under-nourished; only a third of the world's population get enough and the

right kind of food for health and efficiency and a half of the world population always live at low nutrition levels. In our own country, according to Sir John Megaw, a former Director-General of Health, more than two-thirds of the population are victims of mal-nutrition and under-nutrition. Each day on the average the world receives a net increase of 55,000 new mouths to feed and not enough additional food to feed them. In India, each day there is a net increase of about 10,000 mouths and yet our food deficit is to the extent of 2 to 4 million tons of foodgrains and our balance of trade is rendered adverse by the single item of food imports to the tune of Rs. 100 to 120 crores. The



AGRICULTURE

gap between supply and demand in the matter of food has been growing not only in this country but in the whole world as well. Chronic under-production of food vitiates the food economy of most of the countries of the world.

Mal-distribution of Food

"Another disturbing factor, making itself more and more felt in the food economy of the world is mal-distribution of food. The countries in the western hemisphere, particularly Canada and the United States of America, have mounting surpluses of foodgrains and food-stuffs. In the United States of America, under the Price Support Programme, the State and Agricultural Department has built up stocks amounting to 191 million bushels of wheat, 87 million pounds of butter, ten-year-supply of dried eggs and vast quantities of other foods, whereas, in the eastern part of the globe, hunger and want stalk the land. In the words of Korris E. Dodd, the present Director-General of F.A.O., 'The twin evils of under-production and mal-distribution are the basic causes of hunger in the world to-day.' The plight of millions in hunger and want is fraught with danger to the peace of the world. It is a continuing invitation to civil unrest, a provocation to armed conflict and a threat to world peace. Feeding the hungry and guaranteeing freedom from want are the basic conditions for the avoidance of catastrophe.

F.A.O.'s main Objective—Freedom from want

"The Food and Agriculture Organization is organized to achieve the noble objective of freedom from want. Its primary function is not only the negative one of eliminating hunger but also the positive one of providing to the peoples of the world adequate quantities of balanced diet. F.A.O.'s first job is obviously to collect, assemble and analyse facts. Facts and figures are guides to action. The World Food Survey of the F.A.O. is a monumental work of food statistics, collected with the active aid and co-operation of the member-governments. In a world paradoxically faced with great untapped possibilities of improving and increasing production, and with great unsatisfied needs of the people, the F.A.O. mobilizes the experience of

many nations in the conquest of hunger and disseminates scientific and technological knowledge relating to nutrition, food and agriculture. It also performs the function of promoting good use of the world's basic resources—land and sea, yielding grains and fish. Anti-erosion measures and forest management are twin methods for conservation of the fertility of the soil. F.A.O. sent special missions to Greece to study soil-erosion control and to Latin America for forest management. Development of fisheries is a matter of great significance in increasing the food supply; F.A.O. missions are studying the possibilities of increased fish production in the Indian and Pacific Oceans. The F.A.O. carries on campaigns against diseases of livestock like rinderpest, bovine tuberculosis, Teschen disease and Hog cholera with a view to eradicating them completely.

Some of the Functions of the F.A.O.

"The functions of the Organization relating to supply of technical assistance and improved implements are of great interest to countries like ours. The F.A.O. is continuously working towards closing the sharp cleavage between the economically and technically advanced and the so-called under-developed areas. It is the aim of the F.A.O. to modernize the primitive production technique and to increase the low output per man obtaining in backward areas. This calls for active and ungrudging co-operation of the advanced countries. Technical know-how, scientific implements and chemical fertilizers could not be supplied to poor countries without forging some credit mechanism. The under-developed countries are notoriously poor—too poor to buy all these requisites of improved cultivation on cash basis. To facilitate a flow of these essential requisites, a group of experts appointed recently by the F.A.O. have recommended two important steps; one is to induce a large continuous flow of capital investment to under-developed areas and the other is to restore convertibility of currencies and multi-lateral trade. These two recommendations are on the anvil of the Conference.

"The F.A.O. performs many more functions. It arranges for the supply

of high-yielding seeds and plants, for instance, American hybrid was supplied to Europe and the Near East and Chinese tea-seed to Yugoslavia. It carries out researches in nutrition and agriculture. It attends to improvements of the processing, marketing and distribution of food and agricultural credit and the adoption of international policies with respect to agricultural commodity arrangements.

F.A.O. is linked with U.N.O.

"The F.A.O. is intimately linked with all the specialized organizations working under the mother of all organizations, the U.N.O.

Modus operandi of F.A.O.

"To discharge its numerous functions with efficiency and expedition, the F.A.O. holds Regional Conferences or meetings. In the last year, out of four such conferences held, one was at Singapore for Asia and the Far East. Special meetings are also called for dealing with special issues. A rice meeting of representatives of countries in South and East Asia was held in Trivandrum to explore the possibilities of increasing the production and improving the distribution, handling and processing of rice. A second meeting for rice was held in the Philippines. The result was the creation of a permanent International Rice Commission in South East Asia by governments concerned with the rice problem. F.A.O. furnishes the Secretariat and the Rice Commission undertakes many kinds of co-operative action to improve the rice economy of the whole region. The International Emergency Food Council, set up by F.A.O., has achieved a high degree of success during its existence.

"A Fisheries Council in each major region to be serviced by F.A.O. technical personnel is being established. Its object is to enable governments to pool their efforts for development and use of the food resources of the seas and inland waterways. The first Fisheries Council was set up early in 1949 for the Indo-Pacific Region.

"India has been one of the original members of the F.A.O. and was also on the Executive Committee of 15, being represented by Sir Ginja Shanker Bajpai.

(Continued on page 15)

NUTRITION



Non-rice dishes are not only delicious but also nutritious.

On God's earth nobody is low and nobody is high. Assumption of superiority by any person over any other is a sin and against God and man.

MAHATMAJI

City Police Act Provisions Extended To Two Towns

The Government of Madras have extended, with suitable modifications, certain specified provisions of the Madras City Police Act, 1888, to Usilampatti town in Mathurai District and Rameswaram town in Rannad District.

FOOD

Food Production Campaign

Light was thrown by Hon'ble Sri A. B. Shetty on the Government's Food Production drive in the course of his address at the Coimbatore Agricultural Conference. He also emphasized how the co-operation of the farmers was necessary for the success of Production efforts.

"The Two Year Plan has now been extended to 1952. The revised Three Year Plan aims at a lower target for each year of the plan. The estimated additional production due to the revised plan for this year and the next two years through Agricultural, P.W.D. and Revenue schemes is 11.08 lakhs tons. The total cost of all these schemes for the three years is estimated at Rs. 27.13 crores. Deducting the amount recoverable from the ryots by sale of seeds, manures, etc., and hire charges for mechanical equipment supplied, the net cost to Government will be Rs. 13.50 crores of which the Provincial Government will have to pay

Rs. 8.69 crores and the remaining amount will come from the Government of India.

"The willing and hearty co-operation of the farmers in the thousands of villages and hamlets of the Province is essential for the success of the 'Grow More Food Campaign.' They must be enabled to adopt the new techniques and avail themselves of the facilities offered by the State for increasing production."

"Rural electrification has made substantial progress in this Province during the last two years. The bulk of the rural supply is at present utilized for lift irrigation with electric pumps. Government are having under execution a five-year plan for power generation in this Province. It is hoped to complete these schemes by 1952 by which time about 1,000 more villages and 12,000 more agricultural pump sets are expected to be connected up. It is the aim of the Government to give high

priority for the supply of electricity for agricultural purposes."

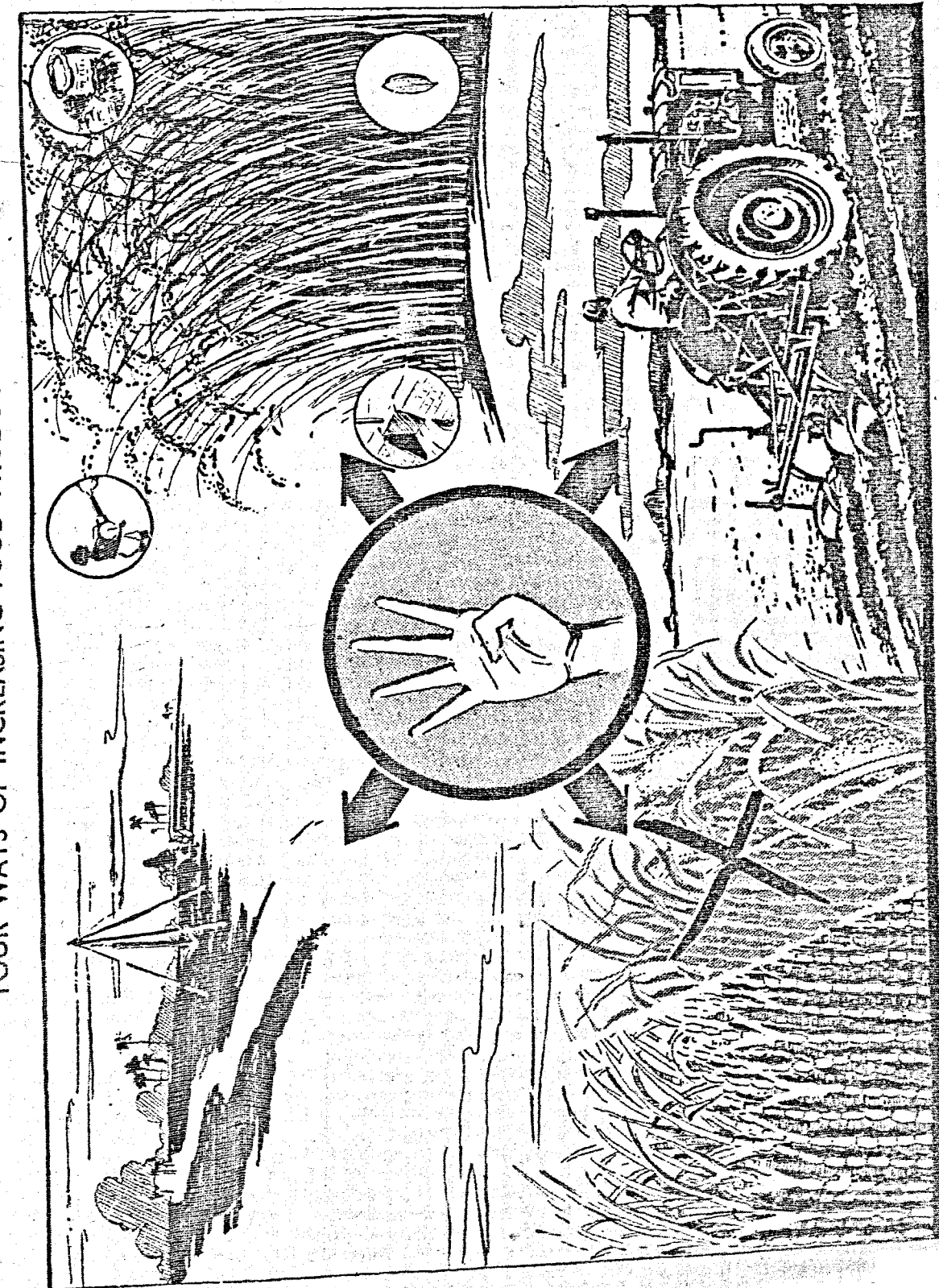
Recognition to Progressive Farmers in Bombay

The Government of Bombay has decided to give recognition to progressive farmers in the Province. Lists of such farmers are being prepared by the Taluka Development Boards, on the recommendations of taluka officers of the Agricultural, Revenue and Co-operative Departments.

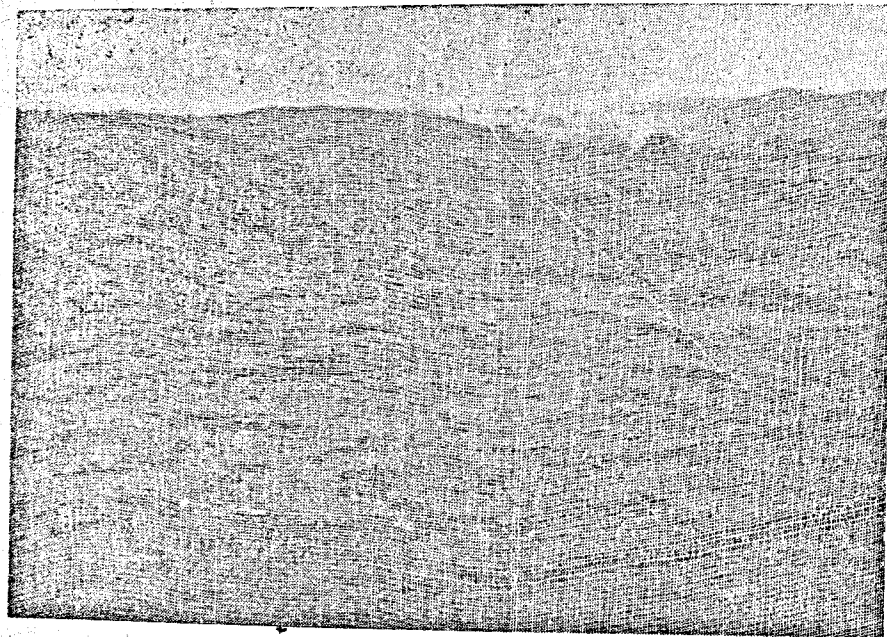
Almost everywhere there are a few farmers who attend to cultivation personally and who are progressive in their outlook on agricultural matters. They generally co-operate with Government departments in carrying out the improvements advocated and take enthusiastic part in the "Grow More Food" and other activities pertaining to agricultural and rural development and are natural leaders of the cultivators in their areas. Such farmers will be recognized as "Progressive Farmers."

FOOD

FOUR WAYS OF INCREASING FOOD PRODUCTION

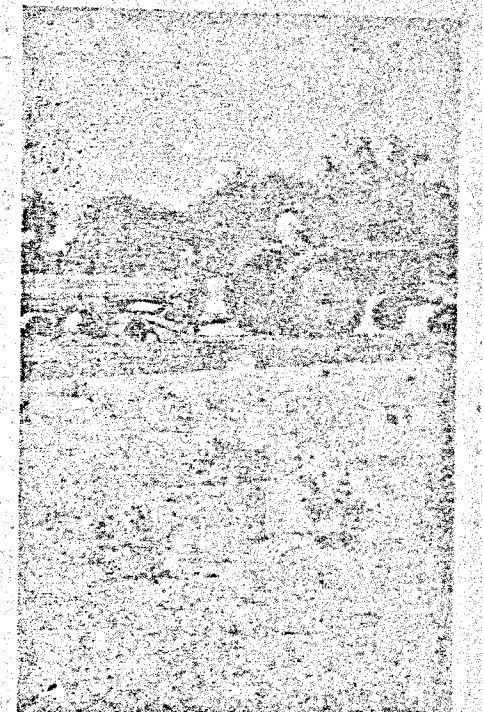


(1) Well irrigation. (2) Mechanized agriculture. (3) Judicious rotation of crops. (4) Food crops to be given preference to cash crops.

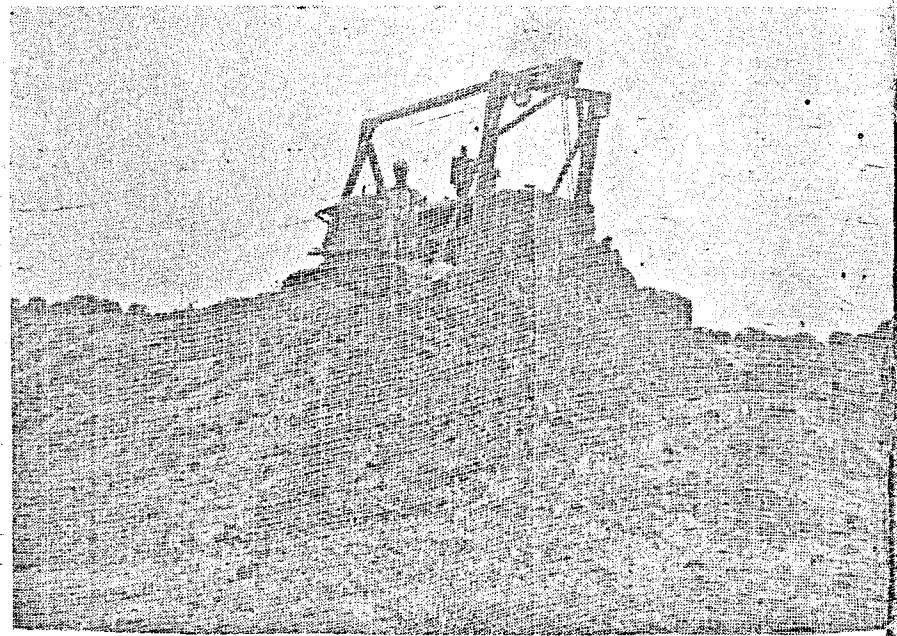


PASTURES NEW.

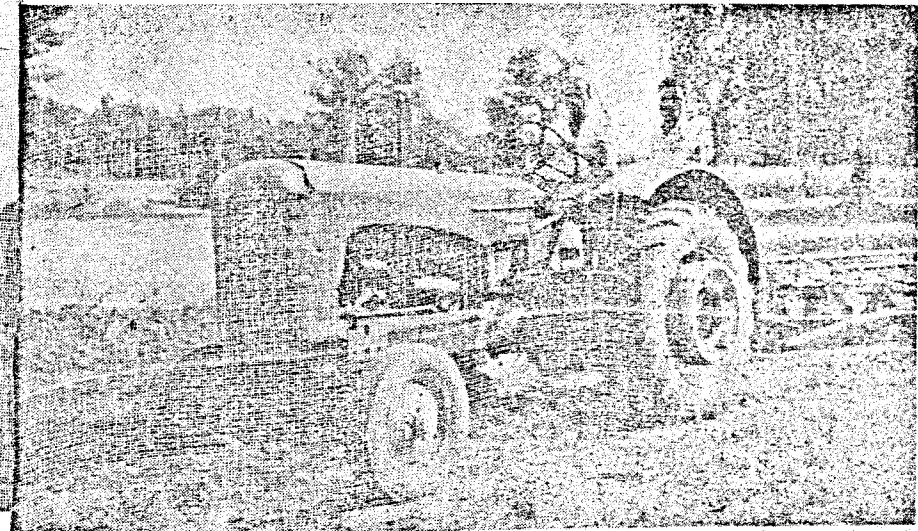
*This land is uneven and full of
ups and downs.*



How a tractor works.



Bulldozer is a great leveller.

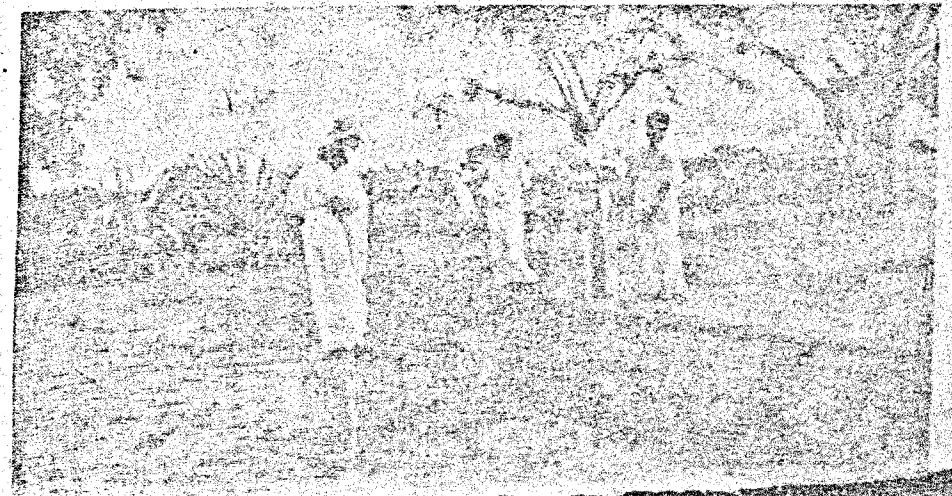


Another tractor in operation.



After operation by bulldozer.

*The land is ready for cultivation—
how quickly have the operations
been done.*



At The Exhibition

A Visit To The Government Stalls

The All-India Khadi, Swadeshi and Industrial Exhibition, popularly known as the Congress Exhibition, now in full swing, is one of the major attractions in Madras City during the Christmas and Pongal seasons. Over six lakhs of people drawn from all walks of life, throng the spacious grounds of the Exhibition every year during its six-week period.

The Education, Electricity, Irrigation, Fisheries, Animal Husbandry, Industries and Commerce, Agricultural and Food departments have taken stalls and installed demonstration units, charts and statistics, samples and models, all of which combine to give a graphic picture of the aims and achievements of the various branches of administration.

New Education in Vidhyanagar

One of the most outstanding spots in the Exhibition, "Vidhyanagar" is a miniature reproduction of the educational activities in the Province and presents at a glance the various phases and types of education imparted. We have fine arts, pre-school training, basic education, social studies, nutrition and home-craft, adult education, library, statistics and information, citizenship, audio-visual education, oriental manuscripts and scientific apparatus, health and physical education and defective children. With the help of charts and pictures which are displayed the various aspects and methods of education are vividly presented.

Electricity : Production and use

The Electricity department in the Exhibition has been attracting a great deal of attention and one can see a long queue every evening before the huge structure attractively decorated and lit up. A visit to this stall is an education in the manner and method of power supply and utilization in the Province. It is divided into three sections: Power stations, transmission and utilization and industrial utilization. An elaborate model of the Pekkara Hydro-Electric Project is the first feature in the power schemes. The 1,000-lakh Mashkund project is shown in model.

In the transmission and utilization section, the use of electricity in agricultural operations is shown by a model pump working to irrigate fields. A model of the Madras Electric Grid indicates the position of hydro-electric and thermal stations in the Province.

The industrial uses of electricity are indicated by the working of a frigidaire, an automatic washing machine, electric fans, heaters, electrified clock, modern wash-room, automatic tea-supplying machine, cattle, percolator, toaster, stove, cream separator, coffee grinder, cash register and recording machine.

Irrigation : Projects and Designs

The exhibits on view at the Irrigation department's stall are from the Irrigation Research Station, Poondi, the Soil Engineering Research Station, Chepauk, and the Concrete Laboratory, Chepauk. The exhibits illustrate how intimately our food problems and our industrial economy are linked with the integrated development of our river valley projects.

Industrial Units in Operation

The Industries and Commerce stall is divided into a number of sections, each demonstrating the activities of the various industrial activities sponsored by the Government. The School of Arts and Crafts has a booth in which handicrafts of the students are on display. The Kerala Soap Institute, Kozhikode, the oldest departmental industrial concern exhibits all the varieties of soap they manufacture as household, toilet, industrial and medicated soaps. A soap-making unit is also on display.

The Government Coir School at Beypore, Malabar, exhibits a number of coir products as brushes, mats, carpets, ropes, brooms, balls and other products. One stall is devoted to the display of articles made in the development of cottage industries.

The Kalahasti Glass Bangle and Bead Training Centre demonstrates the art of making glass bangles and beads with a bangle-making kiln and a bead-

making table. The Government Ceramic Factory, Gudur, demonstrates the use of an improved potters' wheel. A number of crockery articles, sanitary wares and jars are available for sale. The mineral section lists a number of specimens indicating the resources of the Province and informative charts.

The Institute of Leather Technology displays shoes, chappals, purses, handbags, zip-cases, attaché cases and holdalls. The Government Oil Factory at Kozhikode exhibits adamin and shark liver oil. The various polytechnics in the Province demonstrate a number of gadgets as a recording unit, transmitter, burglar alarm, Robot and television screen. The Government Textile Institute has on display a number of improved appliances including a spray painting unit for printing on cotton.

Grow More Food Schemes

The many stalls taken by the Agricultural department are devoted to charts and samples of paddy, millets, pulses, oil seeds, cotton, sugar cane, fruits, vegetables and to the botanical and chemical sides of agriculture. Improved prototypes of agricultural implements are on display. Model plots indicate the right and wrong method of planting, the need for plant production and the technique of contour bunding.

The Government Fruit Product Laboratory at Kodur has on display bottled lime squash, orange squash and canned mangoes and demonstrates the art of preserving and canning.

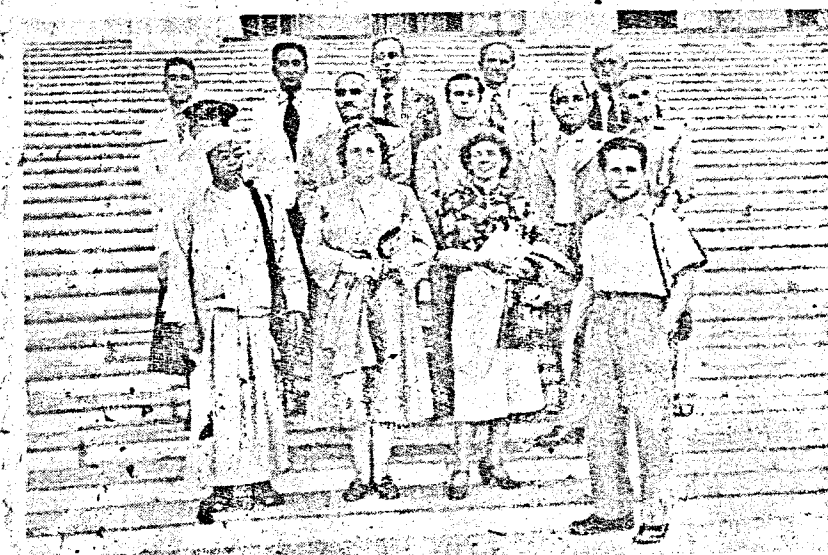
Adjacent stalls demonstrate the need for better storing of grain sacks in godowns and the use of the fumigation chamber to rid the grains of various pests and insects.

The Government Milk Factory, Saidapet, exhibits a model factory, indicating how the milk powder is mixed with vegetable fats and Vitamin A, homogenised and reconstituted into milk.

Cattle Welfare

The Animal Husbandry department has six stalls. The dairy section and propaganda section stress the importance for better care of cows and

DISTINGUISHED VISITORS TO MADRAS



Some of the delegates of the World Pacifist Conference (held recently at Saminiketan) who visited Madras



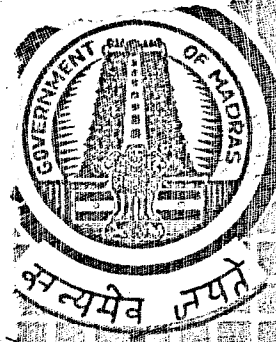
His Excellency the Governor-General being received by the Hon'ble Ministers at the aerodrome



This delegate is interested in the working of the Charka

Registered No. M-4767

PASTEURISATION AND DELIVERY



MADRAS INFORMATION

MADRAS RECORD OFFICE
1097-6
2-MAY 1950

DL. IV. NO. 5

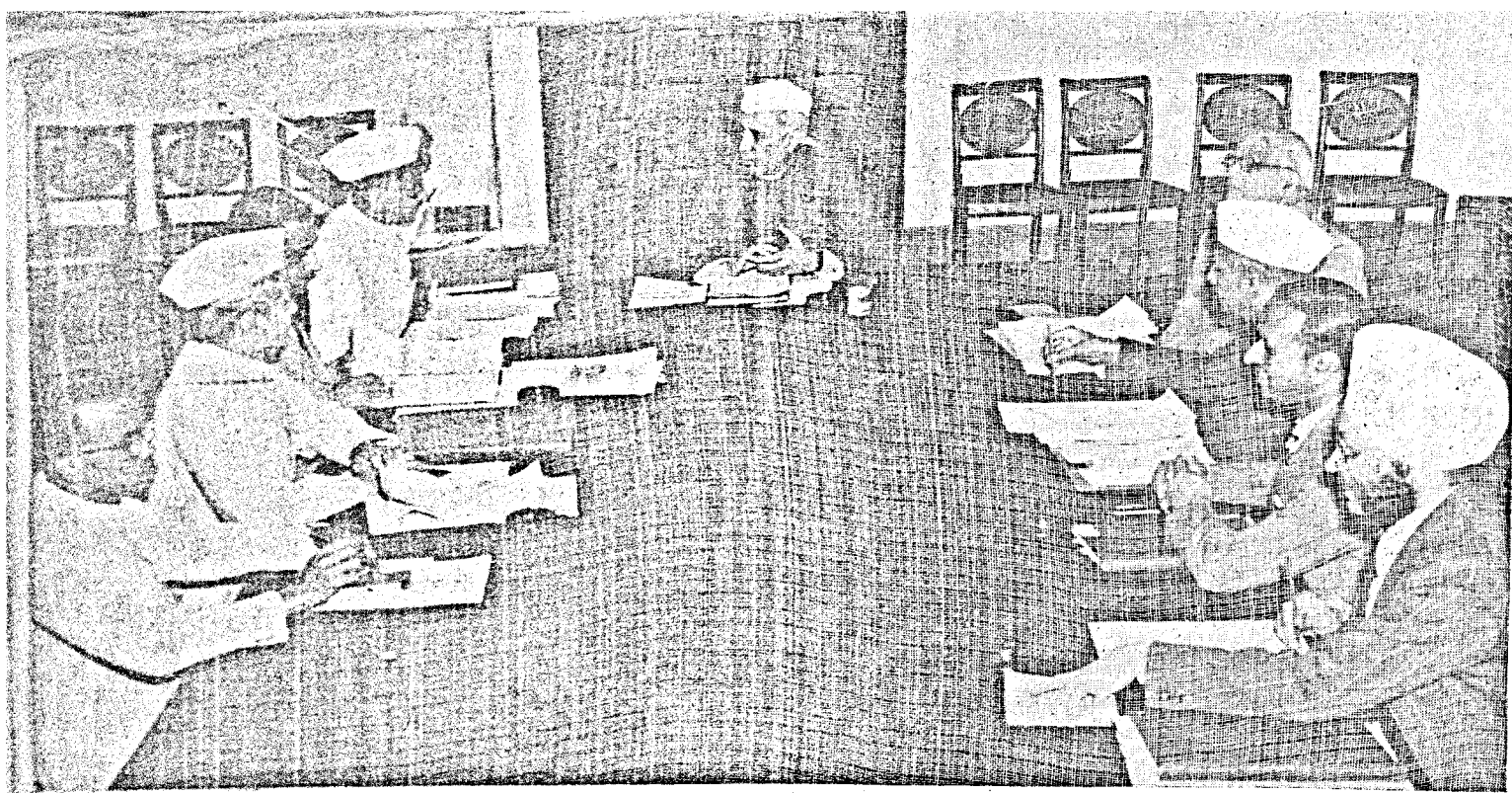
MADRAS

MAY

1950

Price, Rs. 3





Prime Minister Pandit Jawaharlal Nehru presiding over the inaugural meeting of the Planning Commission. Seated at the right of the Prime Minister are—Sri Gulzarilal Nanda (Deputy Chairman), Sri Chintaman Deshmukh, Sri G. L. Mehta and Sri Matthai. Seated at his left are—Sri V. T. Krishnamachari, Sri R. K. Patil (Food Commissioner), Sri N. R. Pillai (Secretary) and Sardar Tarlok Singh of the Ministry of Finance



Below: Sri B. Gopala Reddi, Minister for Finance, replying to a Municipal address in Nellore. Right.—Sri P. S. Kumaraswami Raja, Chief Minister of Madras, opening a Maternity Ward donated by Sri R. L. Reddy, in the St. Joseph's Hospital, Nellore

Madras Information

Published every month by the Director of Information and Publicity
Fort St. George

Vol. IV, No. 5

"WE SEEK TO SERVE AND NOT TO COMPETE"

May 1950

Raising The Nation's Standard Of Living Terms of Reference of the Planning Commission

For some years past, the people of India have been conscious of the importance of planned development as a means of raising the country's standard of living. This consciousness found expression in the appointment in 1938 of the National Planning Committee by the Indian National Congress. The work of the Committee was, however, interrupted by political and other developments in the beginning of the war, although much useful material has since been published. In 1944, the Government of India established a separate Department of Planning and Development and, at its instance, the Central as well as the Provincial Governments prepared a number of development schemes to be undertaken after the war.

Problems of planning were reviewed towards the end of 1946 by the Advisory Planning Board which was appointed by the Interim Government of India, an important recommendation of the Board being the appointment of a Planning Commission to devote continuous attention to the whole field of development, so far as the Central Government was concerned with it.

During the last three years, the Centre as well as the States have initiated schemes of development, but experience has shown that progress has been hampered by the absence of adequate co-ordination and of sufficiently precise information about the availability of resources. With the integration of the former Indian States with the rest of the country and the emergence of new geographical and economic facts, a fresh assessment of the financial and other resources and of the essential conditions of progress has now become necessary. Moreover, inflationary pressures inherited from the war, balance of payments difficulties, the influx into India of several million persons displaced from their homes and occupations, deficiencies in the country's food supply aggravated by partition and a succession of indifferent harvests, and the dislocation of supplies of certain essential raw materials have placed the economy under a severe strain.

Fundamental Rights

The need for comprehensive planning based on a careful appraisal of resources and on an objective analysis of all the relevant economic factors has become imperative. These purposes can best be achieved through an organisation free from the burden of the day-to-day administration,

but in constant touch with the Government at the highest policy level. Accordingly, as announced by the Central Finance Minister, in his Budget speech on February 28, 1950, the Government of India have decided to set up a Planning Commission.

The Constitution of India has guaranteed certain Fundamental Rights to the citizens of India and enunciates certain Directive Principles of State Policy in particular, that the State shall strive to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of the national life, and shall direct its policy towards securing, among other things:

- (a) that the citizens, men and women equally, have the right to an adequate means of livelihood;
- (b) that the ownership and control of the material resources of the community are so distributed as best to subserve the common good; and
- (c) that the operation of the economic system does not result in the concentration of wealth and means to production to the common detriment.

Scope and Functions

Having regard to these rights and in furtherance of these principles as well as of the declared objective of the Government to promote a rapid rise in the standard of living of the people by efficient exploitation of the resources of the country, increasing production, and offering opportunities to all for employment in the service of the community, the Planning Commission will:

- (1) make an assessment of the material, capital and human resources of the country, including technical personnel, and investigate the possibilities of augmenting such of these resources as are found to be deficient in relation to the nation's requirements;
- (2) formulate a plan for the most effective and balanced utilisation of the country's resources;
- (3) on a determination of priorities, define the stages in which the Plan should be carried out and propose the allocation of resources for the due completion of each stage.

(4) indicate the factors which are tending to retard economic development, and determine the conditions which, in view of the current social and political situation, should be established for the successful execution of the Plan;

(5) determine the nature of the machinery which will be necessary for securing the successful implementation of each stage of the Plan in all its aspects;

(6) appraise from time to time the progress achieved in the execution of each stage of the Plan and recommend the adjustments of policy and measures that such appraisal may show to be necessary;

(7) make such interim or ancillary recommendations as appear to it to be appropriate either for facilitating the discharge of the duties assigned to it; or on a consideration of the prevailing economic conditions, current policies, measures and development programmes; or on an examination of such specific problems as may be referred to it for advice by Central or State Governments.

The Planning Commission will be composed of the following:

Pandit Jawaharlal Nehru, *Chairman*.
Sri Guizarilal Nanda, *Deputy Chairman*.
Sri V. T. Krishnamachari,

Sri Chintaman Deshmukh,
Sri G. L. Mehta, and
Sri R. K. Patil, *Members*.
Sri N. R. Pillai, *Secretary*.
Sardar Tarlok Singh, *Deputy Secretary*.

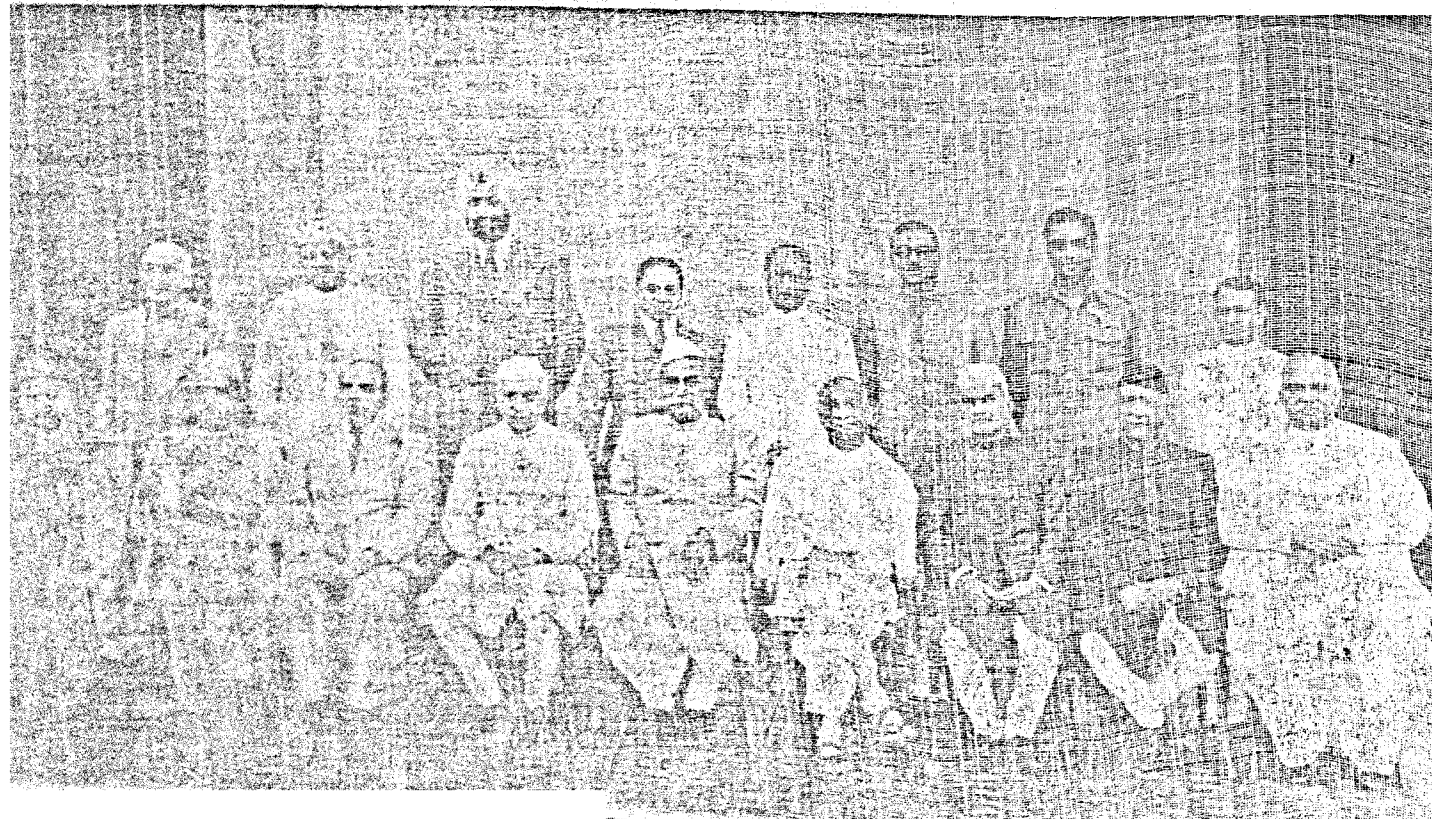
The Planning Commission will make recommendations to the Cabinet. In framing its recommendations, the Commission will act in close understanding and consultation with the Ministries of the Central Government and the Governments of the States. The responsibility for taking and implementing decisions will rest with the Central and the States Governments. The Government of India feel confident that the States will give the fullest measure of help to the Commission, so as to ensure the maximum co-ordination in policy and unity in effort.

The work of the Planning Commission will affect decisively the future welfare of the people in every sphere of national life. Its success will depend on the extent to which it enlists the association and co-operation of the people at all levels. The Government of India, therefore, earnestly hope that in carrying out its task the Commission will receive the maximum support and goodwill from all interests and, in particular, from industry and labour. The headquarters of the Commission will be at New Delhi.

STATE GOVERNORS AND RAJPRAMUKHS WITH THE PRESIDENT

Left to right (sitting): H.E. Sri M. S. Aney, Governor of Bihar; H.E. Sri Mangaldas Pakeasa, Governor of Madhya Pradesh; H.E. Sri Chandulal Tripathi, Governor of the Punjab; the Honourable Pandit Jawaharlal Nehru; Dr. Rajendra Prasad; the Honourable Sardar Vallabhai Patel; H.E. Dr. K. N. Katju, Governor of West Bengal; H.E. Sri Maharaj Singh, Governor of Bombay; H.H. the Jamsahab of Nawanganagar, Rajpramukh of Saurashtra.

Standing: H. E. Sri H.P. Modi, Governor of U.P.; H.E. Sri Sri Prakasa, Governor of Assam; H.E. the Maharaja of Patiala, Rajpramukh of P.E.P.S.U.; H.H. the Maharaja of Gwalior, Rajpramukh of Madhya Bharat; H.E. Mr. Asaf Ali, Governor of Orissa; H.H. the Maharaja of Bhopengar, Governor of Madras; H.H. the Maharaja of Jaipur, Rajpramukh of Rajasthan, and H.H. the Maharaja of Travancore, Rajpramukh of the United State of Cochin and Travancore.



Facts And Figures

Gist of replies to questions in Parliament given by the Food and Agriculture Minister, Government of India, furnishes an interesting and comprehensive background to the study of our food problem.

Procurement targets for 1950.—The following are the procurement targets for 1950 and the amounts actually procured by the State Governments since January 1, 1950:—

	Targets	Amount procured since January 1, 1950
	TONS	TONS
Rice	3,362,000	457,000
Wheat	584,000	13,000
Gram	344,000	2,000
Other crops	1,082,000	101,000
	5,372,000	573,000

Food deficit in 1950.—According to the State Governments, the total deficit in their food budgets during 1950 will amount to 35 lakhs tons. In view of better crop prospects this year, the total distribution required from the Centre at present is expected to amount to 20.57 lakh tons, of which 6.75 lakh tons is likely to be available from surplus areas within the country.

Import Programme of 1950.—The import programme of 1950 is for 1.5 million as against 3.7 million tons in 1949.

Foodgrains imports since 1945-46.—During the last five years beginning 1945-46 the following quantities of foodgrains were imported:

Year	Quantity TONS	Value RS.
1945-46	931,000	20,02,00,000
1946-47	2,578,000	72,90,00,000
1947-48	2,656,000	93,29,00,000
1948-49	3,046,000	1,17,09,00,000
1949-50	2,556,000	79,91,00,000

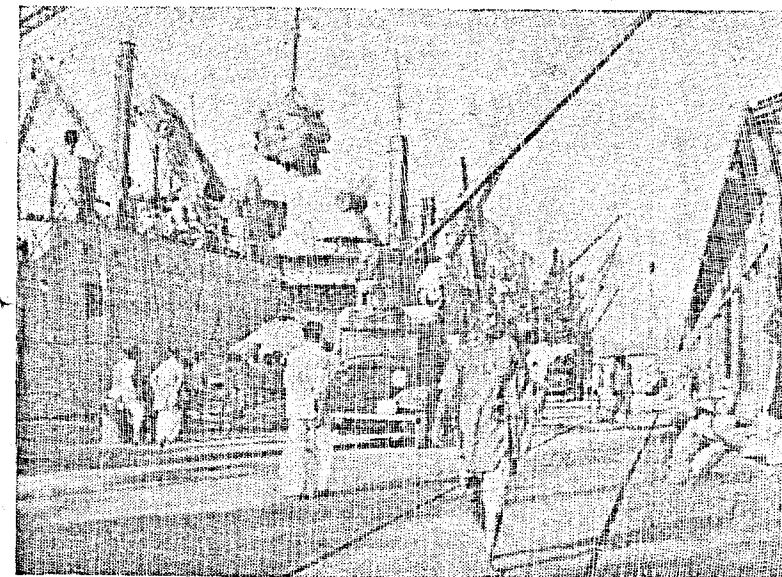
Well Subsidy Schemes.—Well subsidy schemes are at present working in Bihar, Bombay, Madhya Pradesh, Uttar Pradesh, Madhya Bharat, Pepsu, Mysore, Travancore and Cochin and Madras.

The cultivator gets a subsidy up to 50 per cent of the total cost of the well and the materials such as iron and steel for Persian wheel, slack coal for burning bricks and cement for plastering at controlled rates. The Government of India shares half the cost of this subsidy given to the cultivator by the State Government.

Grow More Food finances for 1950-51.—A block allocation of Rs. 15 crores has been set apart for financing all the Grow More Food schemes during 1950-51.

Fertiliser Import Programme.—The quantities and values of fertilisers planned to be imported during 1950-51 and 1951-52 are as follows:

	Quantity TONS	Value RS.
1950-51	435,000	14,21,00,000
1951-52	235,000	7,68,00,000

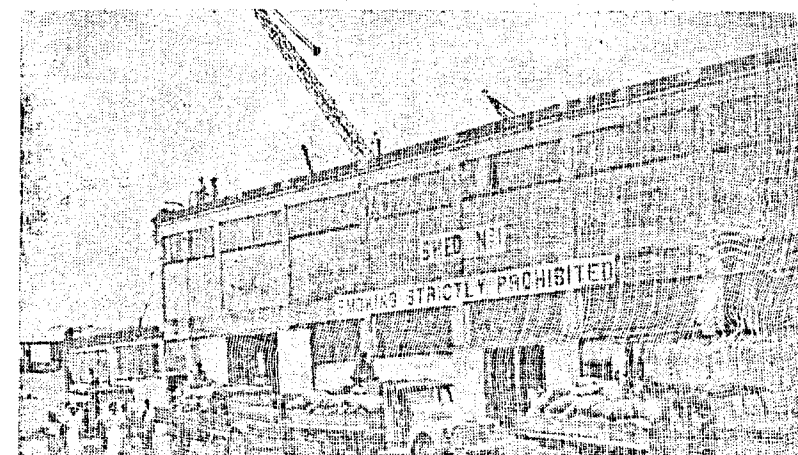


Burma rice being unloaded from a ship in Calcutta

Tractors through International Bank Loan.—From the loan given by the International Bank, orders for 180 tractors were placed in July last year by the Director-General, Ministry of Industry and Supplies. Orders for 90 harrows and 58 land-clearing blades were placed in August. Orders for the remaining 195 tractors and associated equipment will be placed shortly; 149 tractors have arrived and the remaining 31 are expected in Bombay by the end of February.

The Government have obtained half-share of the discount allowed by the manufacturers to their agents, i.e.,

A fleet of motor lorries carrying imported grain to a Government storage depot



Finance Minister on Food Situation

Dr. John Matthai, Finance Minister, Government of India, presenting the Budget for the year 1950-51 in the Parliament, said that the drive for self-sufficiency in food was being vigorously pursued by the Central and the State Governments and production in 1950 was expected to show an increase of 2.8 million tons over that of 1949. The procurement target for the same year, he said, had been raised to a further million tons over the target fixed for 1949 with a corresponding decrease in the imports from overseas. Imports next year are now placed at 1½ million tons of which approximately 200,000 tons would go to build up a reserve.

The following are further salient points from the Finance Minister's statements:

- Food production in 1949 is estimated at about 43 million tons as against 41 million tons in 1948;
- procurement figures for the 11 months ending November 1949 were 4.2 million tons as against a target of 4.0 million tons for the whole year;
- there has been a steady decline in the prices of cereals and pulses, the index number of the former showing a fall of 55 points from 490 points in December 1948 to 435 points in December 1949, while the index number of the latter (i.e., pulses) shows a drop of 72 points from 454 points in December 1948 to 382 points in December 1949. The index number of food articles, as a whole, has shown a drop of 23 points in this period;
- the main reasons for rise in imports during 1948-49 were large overseas purchases of foodgrains and the measures taken to liberalise commercial imports. Unfortunate weather conditions, the Finance Minister said, during 1948 had led to a partial failure of crops in several parts of the country and caused an abnormal deficit necessitating increased imports of foodgrains. Of the total imports amounting to Rs. 650 crores during the period July 1948 to June 1949, the import of foodgrains accounted for as much as Rs. 137 crores constituting 21 per cent of the imports;
- there will be a saving of Rs. 6½ crores in the provision of Rs. 28½ crores for the payment of subsidy on imported foodgrains to the State Governments. An amount of Rs. 3.45 lakhs will be paid as bonus to the State Governments for internal food procurement; and
- expenditure on food subsidies is estimated at Rs. 29.67 crores this year and Rs. 21 crores next year.

11 and 12½ per cent commissions respectively on the above mentioned tractors.

Tractors owned by State Governments.—The number of tractors owned by State Governments and used for cultivation purposes is 1,540. Of these, it is understood, 901 have been made available to agriculturists and co-operative societies on hire.

With a view to ensuring that tractors do not lie idle because of lack of spare parts, the Government of India propose to make it obligatory on the part of importers to import implements to the extent of 20 per cent of the value of tractors along with every consignment of tractors.

Iron and Steel for Agriculture.—During the financial year 1949-50, 214,776 tons of iron were allotted to States for agricultural purposes. In addition, 26,000 tons (approximately) were allotted to steel processing firms for the manufacture of agricultural implements.

The total output of iron materials for all purposes during 1949 was 622,000 tons. Imports were 397,964 tons.

Control measures on plant pests and diseases.—During 1949-50, control measures on plant pests and diseases by the various States covered approximately 18 lakh acres as against 10 lakh acres in 1948-49.

Food stocks with Centre in 1949

	TONS
Opening stock with Central Government on 1st January 1949	19,000
Receipts from surplus States during 1949	313,000

	TONS
Receipts from abroad during 1949	3,700,000
Allotments to deficit States during 1949	3,941,000
Balance with Centre on 31st December 1949	97,000

Procurement in States.—During 1949; 4,417,000 tons of foodgrains were procured by the various State Governments.

Austerity measures.—The Government of India have decided that on occasions of marriage and funerals, the number of guests, excluding the members of the household, who may be provided with rationed grains should not exceed 50 in number. For ordinary entertainments at which rationed food is served, the number of persons including the hosts should not exceed 25.

Rural indebtedness.—It is not possible to say whether the total volume of rural debt has undergone any material change as no survey on an all-India basis has been undertaken during recent years. The Government of India have suggested to the State Governments the desirability of instituting enquiries into the position of rural indebtedness and the reasons for its rise or decline in recent years. In some States, enquiries have been taken in hand, and in others the matter is under consideration.

Sugar production.—Sugar production up to the end of January 1950 was 464,672 tons. The total production during the year will be known after the completion of the crushing season and it is not possible to state at present whether any scarcity will occur during the year. However, in case it occurs, steps to be taken are under consideration.

Government seemed to have fixed the target of additional premium of Rs. 6-3-0 per bag and sold at a subsidized rate by recovering only Rs. 3-4-0 from the ryots. The Department has now taken up the work of organizing green manure seed farms in each district so that every place may produce its own requirements. A Compost Development Officer with the necessary staff has been appointed with a view to develop the production and utilization of compost manure in urban as well as rural areas. A Provincial Compost Development Committee is giving advice to Government in this matter. Eighty Municipalities and 54 panchayats have taken to the manufacture of compost. To encourage the production of rural compost from waste vegetable matter, a subsidy is being given at the rate of Re. 1 per ton of compost.

Crop Improvement Work

The production and distribution of improved seeds is a very important item of work for the improvement of both food and commercial crops. The research staff of the Department have done very remarkable work in producing new varieties of higher yield, better quality and greater disease resistance power. Fifty to 60 per cent of the area under paddy, 30 per cent of the area under cotton and the entire area under sugarcane have now come under such improved strains. Since millet breeding work has made comparatively little progress, four regional millet stations have been opened during the current year for research work in this field. Five Seed Development Officers and 38 Assistants have been appointed this year to improve and expand the seed development work and maintain the purity of the strains regarding which there have been some complaints of late. Government are now considering how the improved seeds can be made more easily available to the ryots in interior villages and how their use can be further popularised.

Plant Protection

The average loss due to pests and diseases is estimated to be 20 to 30 per cent in the case of food crops and 10 per cent in the case of commercial crops. The special staff appointed last year for plant protection work has conducted major campaigns against certain pests and diseases in the Circars and in the West Coast districts and proved the efficacy of such work. A sum of Rs. 2.4 lakhs exceeding by far the original estimate of Rs. 40,000 has been spent on this work during the year on account of the demand from the people for the remedial measures that are being adopted with success. The chemicals for the control of pests and diseases are sold at half the sale price in the case of food crops and hiring charges for the machinery are levied only in the case of power operated machinery. The plant protection scheme will loom large in the future and become one of the main planks of the Department's activities.

Contour Bunding

This is another item of new work which will be taken up in Anantapur and Bellary districts. When the bunds are laid out, the ryots of the area will stand to gain at least 20 to 30 per cent of increased yield per acre.

Tractor Cultivation

The Engineering Branch of the Agricultural Department is progressively expanding. In addition to the 163 tractors

2. The tractor pushes sand of 7 to 10 feet to a nearby pond

which we were having, 67 tractors have just been acquired and are being distributed among the districts. They are hired at concessional rates and first preference is given to the cultivation of waste lands and for the reclamation of new areas. Against a target of 40,000 acres fixed for 1949-50, 34,353 acres have been reclaimed with the aid of tractors from April 1949 up to the end of January 1950. Two Regional Tractor Workshops set up at Coimbatore and Bapatla have begun to function from October 1949. An Agricultural Engineering Store and Supply Centre has been opened at Madras with a view to stocking, storing, servicing and distributing to the ryots agricultural machinery like electric motors, oil engines, pipes and fittings.

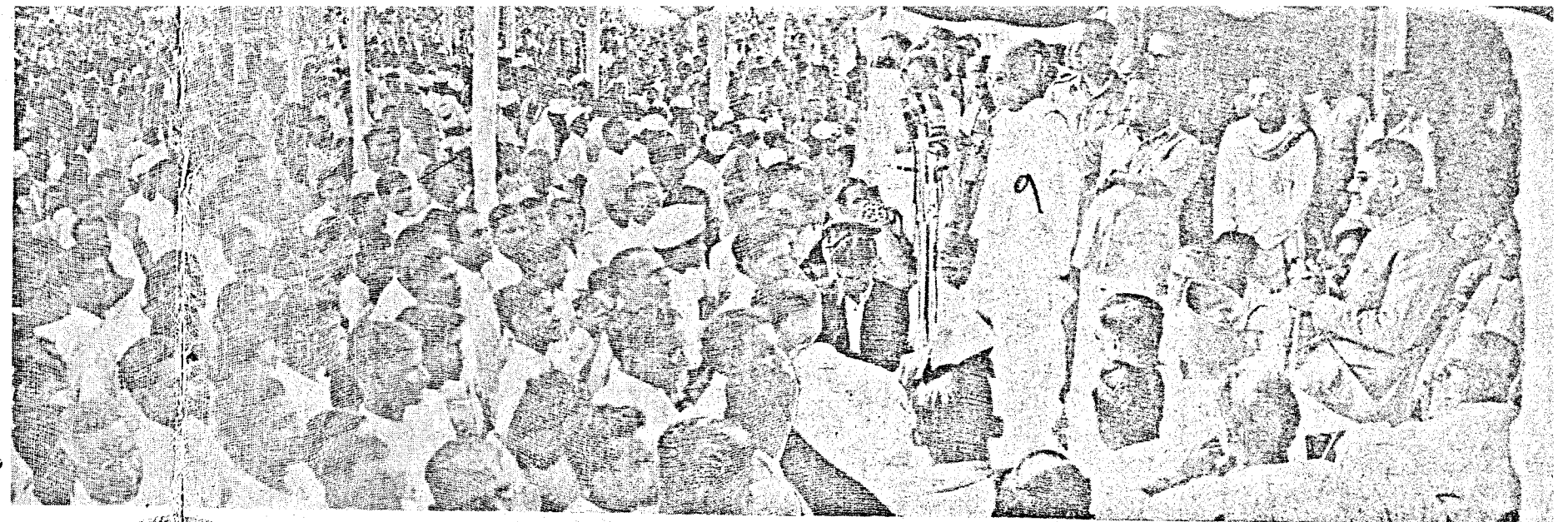
Cotton Production

In view of the acute shortage of cotton at present, consequent on the partition of the country and the recent devaluation, a short-term plan for increasing cotton production has been formulated at the Bombay Conference

3. Land levelled by the Bull-grader and brought under cultivation

AT THE EXHIBITION :
(Congress Grounds, Teynampet, Madras)

H.E. the Governor-General
taken round the Exhibition
by I.N.C.C. President

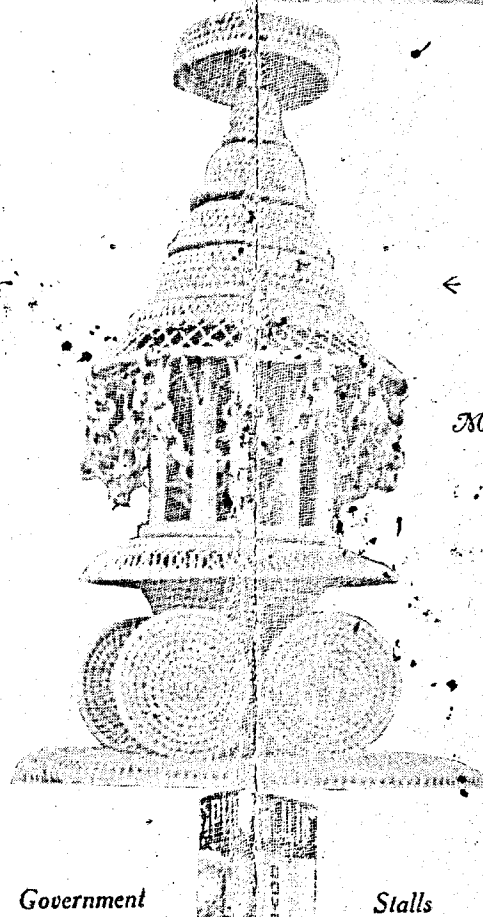


H.E. Sri C. Rajagopalachari
opening the Exhibition

Cane chariot—handicraft made
by the pupils of the School for
the Blind

Model of Singara Power House
(Pykara System)

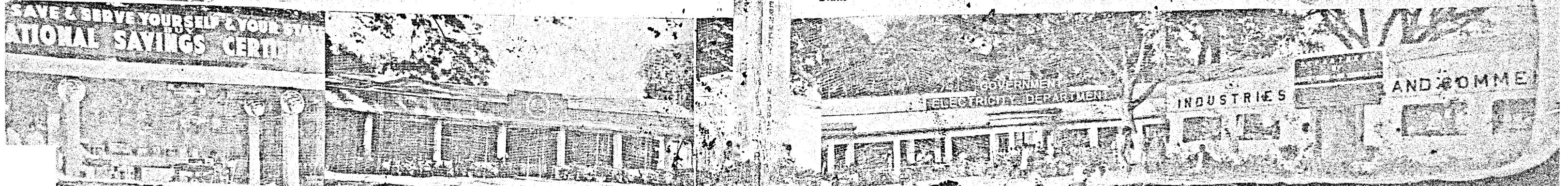
Model farm with
electric pump set



Government

Stalls

SAVE & SERVE YOURSELF & YOUR STATE
NATIONAL SAVINGS CERTIFICATE



CLEARING SCRUB FOR CULTIVATION



1. Land before levelling

held in November last. It is proposed to extend cotton cultivation as an emergency measure at the request of the Government of India who have agreed to replenish the loss of foodgrains we might incur on account of it. An additional output of nearly a lakh bales of cotton is expected to be produced in the next 12 months. Madras will have to increase cotton production to a considerable extent to meet the present and future needs of the State. Several research schemes have been sanctioned and attempts are being made to produce more cotton of longer staple and better quality.

Sugarcane Cultivation

The acreage under sugarcane has doubled itself during the last few years. Improved cultivation at reduced cost is the problem to be tackled for increasing sugar production and bringing down its price. The decision of the Government of India to withdraw protection from the sugar industry makes this an urgent task. To deal

2. T.D. 6. Bulldozer shovel in operation



with the problem of increasing the yield of sugarcane and improve its quality, four liaison farms have been started in 1949 and 24 Special Agricultural Demonstrators have been posted to 13 districts to do intensified propaganda work in regard to this matter.

Groundnut Control

Madras has a large area under groundnut cultivation (40 per cent of the area in the Indian Union) and we are producing about 46 per cent of the total quantity produced in our country. Improved strains have to be spread in the districts to increase the yield of groundnuts. The price of kernels and consequently the price of oil cake have a close bearing on increased food production. There is difficulty in controlling the price of cake as the price of kernel is uncontrolled and there are no restrictions on export of kernels. Exports from Madras should be regulated by permits if fair prices have to prevail. Madras has been pressing this matter since October 1948. The Government of India are against inter-State restrictions of movements on the ground that according to Article 301 of the Constitution, normal trade should not be disturbed except under extraordinary circumstances.

Fruit Cultivation

Extension of the area under high yielding and quality fruits, regulation of the nursery trade and development of fruit preservation industry will help increased production and consumption of fruits, add to the wealth and food resources of the State and also promote nutrition. Twenty-one Agricultural graduates who were given horticultural training, took their diplomas in September last. Out of this first batch of trained men, 17 are now doing horticultural work. Government have sanctioned the establishment of model orchard-cum-nursery stations in five places and these will serve as visual demonstration centres for scientific orchard practices and also as centres for the multiplication and distribution of budded and grafted plants for which there is a great demand from the public at present.

Vegetable Gardens

A special staff is carrying on vigorous propaganda in Madras City to create a sense of "grow more and eat more vegetables" and a bias for kitchen gardening in the minds of the people in the City. Four hundred and sixty new vegetable gardens have been opened in the City during the current year. Some members of the Guild of Service have shown great enthusiasm and rendered considerable help in this matter.

Other Schemes

Among the new schemes started or sanctioned during 1949-50 the following may be mentioned:

- (1) Central Banana Research Station at Aduthurai.
- (2) Pepper Research Station in Malabar.
- (3) Coconut Nursery in Tiruchirappalli District.
- (4) Schemes for research on ginger, control of striga, control of orange diseases, improvement of Korra and Jonna, etc.

Financial Assistance

A sum of 87 lakhs of rupees has been provided in the Budget for loans to ryots under the Land Improvement

and Agriculturist Loans Acts. There is also an allotment of Rs. 2,95,000 for loans for purchase of agricultural implements and pumping installations.

Expert Committee Report

The Expert Committee constituted by the Government to review the progress of agricultural research during the five-year period 1944-48 has submitted its report in November 1949. This report has been printed and given to all members of the Legislature. The valuable recommendations made by the Committee are under consideration at present.

Impediments To G.M.F. Work

It has often been stated that the G.M.F. campaign is a failure. Our main difficulty has been the adverse seasonal conditions we have had during these three years. Floods, drought and cyclone are factors over which we have no control and they have nullified to a considerable extent the efforts made by the Government for increasing food production.

Distribution Work

It has recently been decided to transfer the work of distribution of chemical fertilisers and iron and steel materials from the Agricultural Department to co-operative societies or to private agencies by stages and to complete the transfer of this work by the end of next June. This will enable the officers of the department to devote more time to their legitimate duties. The employment of 100 additional demonstrators and 115 fieldmen has been sanctioned and the demonstrators have already been posted to the various districts.

Pedigree Seeds For Paddy

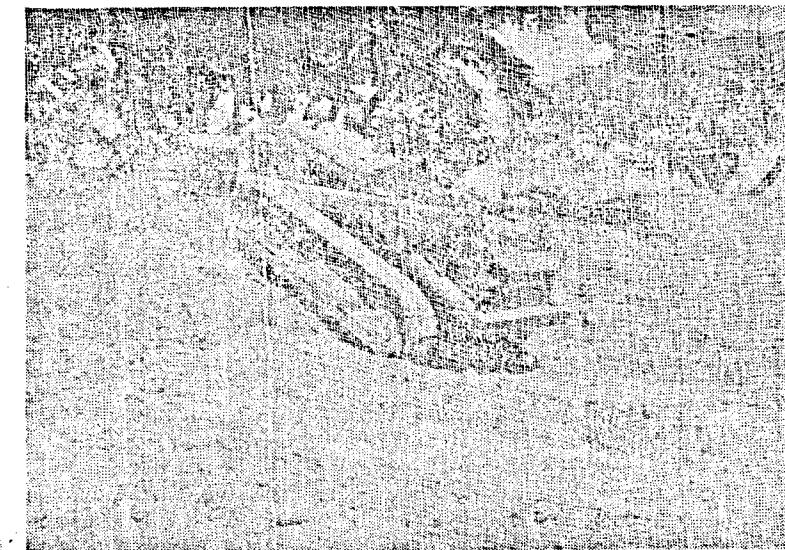
The value of rice as an important article of diet has been brought home to the teeming millions of our country only too well by World War II as well as the increase in population. As a result, every State is trying its best to increase the production of rice. The multiplication and distribution of pedigree seeds or strains of paddy is one such important branch of the activities pursued by the Agricultural Department in the States.

The one obvious advantage of a pedigree seed is the increased yield of 10 to 15 per cent over the unselected seed, besides the uniform flowering and freedom from other grains. This increase in yield though it appears to be slight, will be found to run into several lakhs of maunds of paddy when considered over the deltaic areas of Godavari, Krishna, Cauvery and the Thambraparni rivers. This increase can easily be doubled or even trebled when associated with the cultural practices as economic planting and application of green leaf and phosphatic manures.

Disease Resistant

Some pedigree seeds are also noted for disease resistance. The recently evolved blast resistant strain Co. 25, which is able to withstand the fungus disease, *Piricularia Oryzae*, is a notable instance of breeding for disease resistance.

LEVELLING BY BULLDOZER

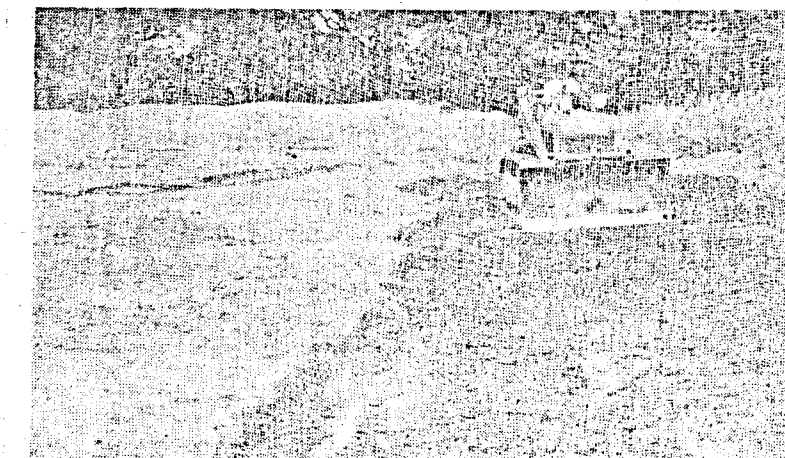


3. Heaping the surplus earth on the boundary

The strain, while giving 10 to 15 per cent extra yield over the usual varieties used by the ryots in normal years, gives an average yield of 3,000 lb. per acre even in an year of disease incidence, the local variety proving a complete failure. The value of the strain as the saviour of crops under such conditions is, therefore, well established.

Another interesting chapter in the history of pedigree seeds is the evolution of strains suited for special conditions as alkalinity, drought and water logging. Varieties which have special characteristics to withstand such conditions have been bred and released for cultivation. As there are large areas in our country under the above special conditions and there is keen demand for pedigree seeds suitable for such areas, there is bound to be increased production under this head as well.

4. Land after levelling



Preservation Of Soil Fertility

The present low yield of crops which has made our country deficient in her food requirements is to a very large extent due to the neglect of the fertility of the soil. The soil must have back, in the form of fertilisers and fertiliser mixtures, the nutrition which is generally taken out of it in the shape of plant food. Next in importance, therefore, to the supply of water and improved seeds is the application of fertilisers and fertiliser mixture to the soil. A judicious application of inorganic fertilisers, it has been estimated, will increase crop yields by 10 to 50 per cent, depending upon the crop.

Until recently, chemical fertilisers like sulphate of ammonia and ammonium phosphate had been applied mainly to cash crops. With the rise in the price of food grains and the growing awareness in the country of the nitrogen deficiency in Indian soil, the demand for fertilisers for food crops has increased. The most popular and valuable chemical fertiliser in India is Sulphate of Ammonia of which India produces at present only 50 to 60 thousand tons, as against our estimated annual requirements of four to five lakh tons. The fertiliser factory at Sindri in Bihar is expected to go into production by the end of 1951.

Owing to a world shortage, India's average annual import during the past three years has not been more than 150,000 tons. The U.S.A. and Canada are the largest producers of sulphate of ammonia, but their large internal consumption and the scarcity of foreign exchange in India do not permit of any considerable import from these areas.

Phosphatic Manures

Another chemical fertiliser now being used increasingly is superphosphate. Although the annual production of superphosphate in this country has not so far exceeded 50,000 tons, resources exist to raise the production immediately to 100,000 tons, and more in future. The Government of India have accordingly planned for the distribution this year of nearly one hundred thousand tons of superphosphate from indigenous sources and are not importing any phosphatic fertilisers. Rock phosphate, the raw material for producing superphosphate, is not available in India and is being imported cheaply from the sterling area countries.

Superphosphate is an invaluable supplement to the sulphate of ammonia and is used in the preparation of fertiliser mixture. India at present produces the single superphosphate which contains about 16.18 per cent of P.O. Double and triple phosphate have not so far been produced but it is expected that with further experience in the production of this fertiliser, these will also be produced. On the whole, the supply position of superphosphate is satisfactory and local production will be able to meet the increasing demands of agriculture.

Another source of phosphate is bonemeal. It is generally used on the soil where a slow action organic form of phosphate is required. Prior to the last war, India was the largest exporter of good quality crushed bones of which bonemeal is the by-product. The inherent religious prejudice of the agriculturists had hitherto prevented

the utilisation of bonemeal as manure to any large extent. The position, however, has altered and the prejudice is gradually disappearing. To meet the increasing demand for bonemeal, the Government of India are encouraging the formation of co-operative societies for the production of bonemeal as a cottage industry.

While the export of crushed bones has been allowed to earn foreign exchange, all bonemeal manufactured in India is used for agricultural purposes. Moreover, crushed bones fetch a considerably higher price than rock phosphate required for the manufacture of superphosphate.

Like bonemeal, blood-meal is another fertiliser obtained from the dead animal. Blood collected in the slaughter houses is boiled and the crust or powder thus formed makes excellent fertiliser. Both bonemeal and blood-meal can be used for manure mixture and applied to the soil direct.

Green Manuring

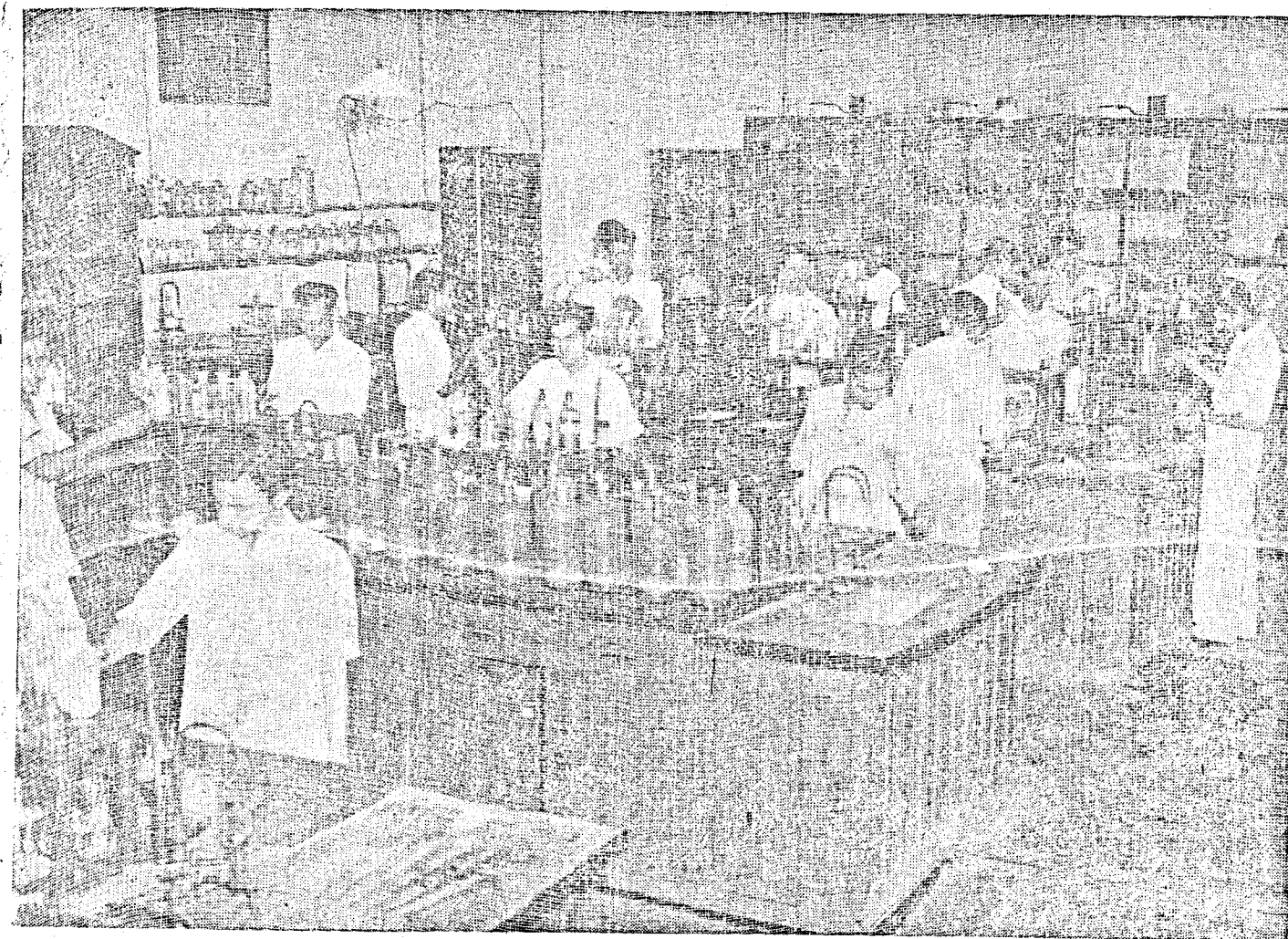
Green manuring is another way of returning to the soil adequate supplies of organic matter and nitrogen. Green manure seeds generally used in India are (i) Sunn-hemp, (ii) Guara, (iii) Barsoem and (iv) Dhaincha. Green manuring is advisable in areas where the supply of water is plentiful. These crops are grown and ploughed into the soil where they are allowed to rot, to increase its nitrogen content. Partly by demonstration and partly from experience of the more progressive farmers, the Indian grower has begun to understand the utility of green manuring not only in maintaining the fertility of the soil but also in increasing the yield per acre. Under the Grow More Food campaign, the Government of India are encouraging its use by free distribution of green manure seeds.

All forms of nitrogenous fertilisers are controlled by the Union Government, which arranges for supplies from producing countries abroad. The indigenous supplies which are also controlled are taken into consideration when allocation are made by the Centre to the State Governments.

Controlled Prices

The price of phosphatic fertilisers is similarly controlled. State Governments should inform the Central Government if they are in need of additional supplies, as supplies from internal production have already been allocated. Internal production can, however, be raised to meet larger requirements.

In the application of fertilisers to the soil it is essential that all available organic matter is used. Instead of applying in large doses over small areas, the fertilisers should be spread uniformly over the maximum area and supplemented with inorganic material. The advantage is that it maintains the physical structure of the soil. It is advisable for the cultivators to purchase their requirements of fertilisers whenever they are available, and to keep them for application to various crops. This is necessary because, for many crops the growing season is short and the loss of a week or two may mean the loss of the entire fertilising season.



Experiments on the improvement of soil fertility have been going on at the Indian Agricultural Research Institute, New Pusa, for the last 35 years. Students of Soil Chemistry at work in the Laboratory.

Improved Rice Varieties Evolved

Several improved varieties of rice capable of increasing the yield between 16 to 32 per cent have been evolved as a result of a paddy research scheme sponsored by the Indian Council of Agricultural Research in Travancore. The scheme has been functioning since 1940 in the Paddy Breeding Stations of Monkompuzha and Adoor in Travancore. According to the final report on the scheme just published, the following improved rice varieties have been evolved:

(a) *Variety MO1*.—It is a high yielding strain of a local rice variety called *Chettivirippu* and has given an average increase of 30 per cent in yield test trials. This variety grows well in Salem area. The duration of the crop is 90 days and the average yield is 1,800 lb. per acre;

(b) *Variety MO2*.—It is derived from the most popular local rice variety known as *Kallada Samba*. It has given an increase of 22 per cent in yield trials. With a crop duration of 95 days the average per acre yield comes to 2,000 lb.;

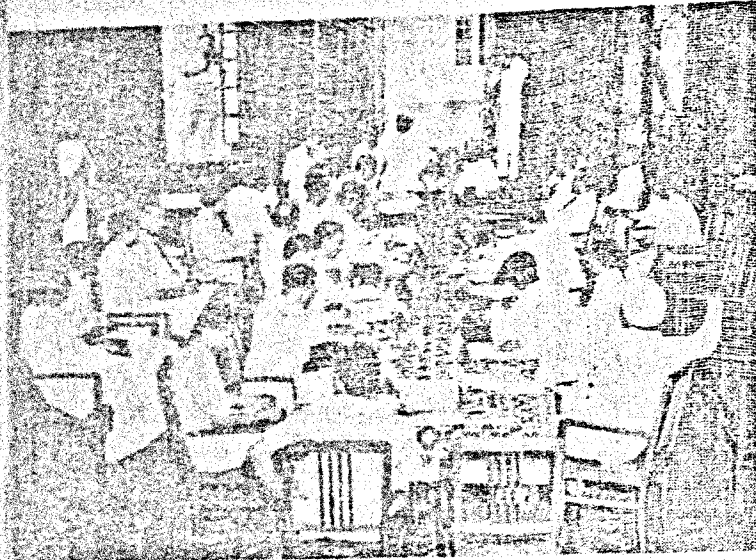
(c) *Variety Ptb. 10*.—The average increase in its yield in three season tests was about 20 per cent and the yield per acre under local conditions was 1,800 lb.

In the Paddy Breeding Station at Adoor, several improved varieties were evolved in which the increase in yield varied from 16 to 32 per cent.

Another interesting result of these experiments is the possibility of introducing a third crop of rice during the year in some areas of Travancore where irrigation facilities exist. It was found that Ptb. 10 grew successfully in these areas between January to March provided water was available, thus increasing the crop yield by about 50 per cent over present production.

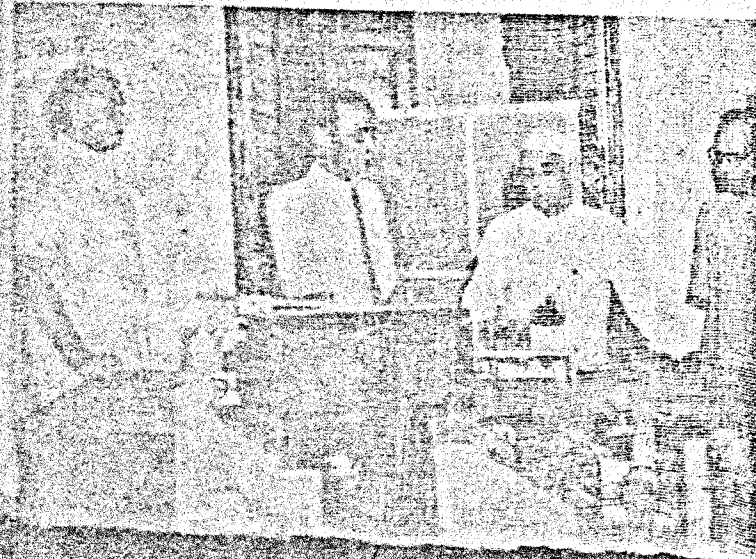
Along with evolving improved seeds, steps were taken to multiply and distribute them to the cultivators. Nucleus stock of pure seeds was supplied to 'A' class seed growers for multiplication under Government auspices. The seeds thus multiplied were supplied to 'B' class growers.

CONFERENCE OF DIRECTORS OF INFORMATION AND PUBLICITY



The Hon'ble Sri R. R. Diwakar, Minister for Information and Broadcasting, Government of India, addressing the Conference of Directors of Information and Publicity recently held in Madras City.

The Hon'ble Sri M. Bhakthavatsalam, Minister for Public Works and Information, Government of Madras, explains the role of publicity departments.

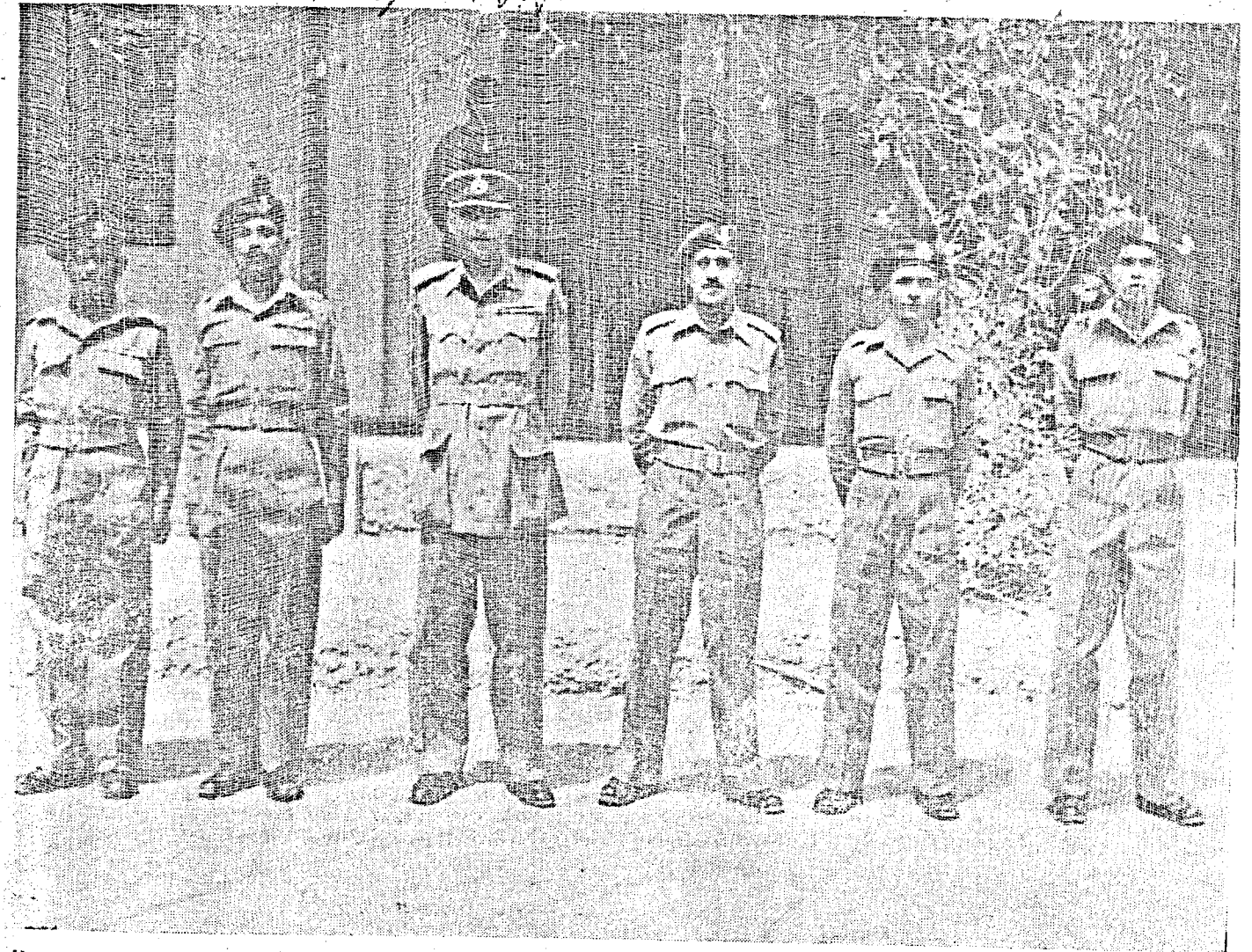


Sri R. R. Diwakar at the Provincial Broadcasting department. With the Minister are Sri R. Parthasarathy, Director of Information and Publicity, Madras, Sri H. Joga Rao, Radio Engineer and Sri B. L. Sharma, Principal Information Officer, Government of India.

DEFENCE

Page 102
Missing 13 to 18
200

MADRAS INFORMATION



Heroes of Kashmir, who won Vir Chakras during the Kashmir Operations belonging to the Madras Regiment, were introduced to Maj.-Gen. A. A. Rudra, G.O.C., Madras Area, on his recent visit to the Unit. Picture shows: (Left to right) Company Hav. Major M. Pushpanathan; Hav. Gopala Kurup; Maj.-Gen. A. A. Rudra, Captain K. Venugopal, Naik Abdul Rahman and Lance Naik Ayyappan.

enemy at this time had to send reinforcements of about two battalions in this sector.

Sheikh Abdullah's Tribute

When the Madras Battalion left Kashmir for India in the middle of last year (after 20 months of active service) handsome tributes, well deserved, were paid from all sides.

Sheikh Abdullah, Premier of Kashmir, making a representation to the brave defenders of Kashmir said: "Our brothers from the South have taken a leading part in the defence of Kashmir. They have fought tenaciously and valiantly and although unused to the severities of a cold climate, they have held their posts on tops of snow-covered cliffs and mountains, with a courage which has won them the admiration of the whole Kashmir people. The role of 'unknown soldiers' in the war in Kashmir has truly been of the Madrassi foot soldiers. The people of Kashmir will never forget the help they have received from their brothers of the South."

A batch of pioneers at work in the Jhangar area



Training Of The "Air-Army"

In the initial stages of the evolution of the aeroplane, jumping with the help of parachute was probably conceived as a means of escape from death. But gradually new uses were discovered and in the last war, parachute jumping was used on a large scale to drop supplies in isolated positions or as a means of infiltration into enemy territory. This method was still further developed and during the closing months of the war mass dropping of troops to capture enemy positions by surprise and quick action was used with great efficiency. The parachute has since come to stay as part of the equipment of a modern army.

Training of paratroopers was begun in England in the summer of 1940 after the German invasion of Holland. It was only after another two years that a training school for paratroopers was started in India at Chaklala, in Western Pakistan. All training equipment and staff were left in Pakistan as a result of partition and India had to organise the school from scratch. Squadron Leader S. Gopalan and two other officers were sent to the United Kingdom for a special study of parachute training methods and to prepare a scheme for opening a school in India.

Selecting Instructors

After surmounting great difficulties, a Paratroopers' Training School was eventually opened at Agra in November last. The instructors of the school are drawn from the Physical Fitness and Drill Instruction staff of the Indian Air Force. A term of PJIs (Parachute Jumping Instructors) has been carefully selected and trained from amongst a large number of volunteers. It is their task to teach the parachuting technique and aircraft drills associated with. The PJIs are fully qualified parachutists with good physical education training and with the ability and desire

A log across a stream near Dros makes a welcome bridge for the Indian troops; here frozen feet might mean considerable inconvenience

to teach others. They are chosen for their toughness, tact, leadership, initiative and ability to put their thoughts into clear concise words.

The task of an instructor is a difficult one. He has to make the soldier learn how to land safely and uninjured on the ground. By guile and skill he must ensure that the pupil gains complete confidence in himself and in his ability to manipulate his equipment to make a perfect descent. His success as an instructor is gauged by the number of injury-free descents made by the pupils in his charge. For this the PJIs must themselves be first-class parachute jumpers. The PJIs who have made scores of jumps have done excellent work, and by continuous practice they are exceptionally skilful in the art of parachuting.

Basic Training at Agra

The school at Agra provides basic training for new recruits and also a refresher course every six months for those who have passed the basic training. The basic course is to teach the pupil how to make quick exits from an aircraft, how to manipulate his parachute and the technique of landing to ensure that in doing so, he does not get himself hurt. In the early days of parachute practice the rate of casualty was one in every hundred; but now with improved technique and equipment the incidence is one or two minor injuries in a thousand descents.

The basic training is normally of two weeks' duration. In the first week the pupils are given preliminary ground training in all elements such as—how to make a controlled exit from an aircraft; how to control oneself when descending to the earth; how to make a perfect injury-free landing so as to be in a position to do an army exercise immediately after getting to the ground and how to fit the parachute on to his body and carry the equipment he would need in an airborne assault.

Overcoming fear of the Jump

The most difficult part of the training is the problem of making the pupils get over the feeling of fear of jumping from a height. It is a psychological phenomenon that the instinct of "refusing" to jump is in every living being. A PJI has to use all persuasive methods to infuse confidence in his pupils.

The preliminary ground training includes gradual introduction of jumping from varying heights. Even after thorough training a number of pupils refuse when it comes to the actual jump. It has been observed that pupils make up their minds that they are going to jump, but at the last moment they find that it is not possible. Whether they have to stand at the doorway and jump out into the air or whether they have to sit on its edge and push themselves off, the decision to jump has to be made themselves. It is inability to make this decision to jump that is the chief reason for "refusal". This "freezing" on the edge of the doorway of the aircraft is common among "refusals". A large number manage to get their feet over the edge and are still unable to make the final effort to push themselves off.

From this sense of inability to make the jump it appears the cause of fear is sub-conscious. The men do not say that they are afraid of falling or afraid of the parachute not opening, but they say that they find themselves unable to move. Everyone knows that the risk involved is remote—one in a thousand or more. But still that fear is there. Nowadays jumping has been made very much easier.

Volunteer Service

Men of an airborne force are volunteers and there is no compulsion to join it. Only those with certain prescribed physical fitness, smartness and weight are eligible. The method of instruction is designed to help them and to persuade them through the course. The trained PJIs keep a close relationship with their pupils during training. There is no threat of court-martial or any other means allowed to force them into it.

The average speed of descent by parachute is 1,000 feet a minute, and during training drops are made normally from a height of 1,000 feet. In conditions of no strong wind injuries are very rare. On all landings the legs must be kept firmly pressed together with the feet parallel to the ground. The body must be held loosely and there must be no stiffening to meet the ground. On impact, the body must flex loosely at ankles, knees and hips and then collapse and roll so that the shock is absorbed to the maximum.

The parachutes are made of expensive materials. Extreme care is taken to test and pack the parachutes and other gadgets before use. For training purposes a wide ground or dropping zone, technically called "DZ" has been prepared and landing can be made both during day and at night time. The aircraft from which a batch of men are to drop, first makes a dummy run across the target, and then, on its second run, drops a "drifter", i.e., a member of the Paratroopers Training School staff to determine the speed of the wind and so on. In the basic course, the trainees have to make at least seven injury-free jumps before they are declared successful.

Delhi Villagers Take To Self-Help

A hundred enthusiastic villagers of Badli, a village about ten miles away from Delhi, armed with spades and shovels, started work on a novel project—of levelling down a canal bridge and the connecting roads in the presence of Sri Jairamdas Daulatram, Central Minister of Food and Agriculture, and Sardar Datar Singh, Vice-Chairman, Indian Council of Agricultural Research. They were engaged in removing what they said was a 40-year old inconvenience which has been felt by generations but has yet remained unattended.

By the side of this village, Badli, the Western Jumna Canal flows. There is a bridge over the canal connecting villages on both sides, but it is so high compared with the general level of the surrounding area that loaded bullock carts find it extremely difficult to negotiate the bridge. When originally constructed, the bridge had to be raised high, as the Western Jumna Canal at that time was also



Indian Artillery fought on high snow-mantled peaks in the Kashmir action

being used for navigation purposes and country-boats and other types of river crafts had to pass through the bridge. With improvements in road transport and particularly with the introduction of mechanised vehicles, the need for using the canal for navigation purposes has long ceased to exist, but the difficulties of negotiating the bridge by bullock carts have continued for generations without any attempt at removing them.

Swift Action Launched

A few months back the villagers had brought their difficulties to the notice of the Agriculture Minister and the matter was taken up with the Government of the Punjab which controls the canal. A scheme has now been drawn up by which the Government of the Punjab will execute the necessary works in connexion with lowering of the bridge while the villagers themselves will undertake the levelling of the connecting road. Work on the project will be completed very soon, the villagers' estimate being that they would finish the job in ten days. Each of the four hundred families in Badli village has been allotted a quota of work and they have started work on a shift system.

The Agriculture Minister addressing the villagers present, expressed his appreciation of the spirit of self-help shown by them and impressed upon them that substantial improvement in rural areas could only be achieved if the villagers co-operated wholeheartedly with the schemes launched under official auspices. As an instance of what public co-operation can achieve, the Minister referred to the work of the Prantiya Raksha Dal volunteers in Uttar Pradesh, who recently reclaimed about eight thousand acres of jungle land in Lucknow District in about a month.

Public Health Facilities in the State

By Sri T. M. S. MANI, I.C.S., Secretary, Health Department.

Various thinkers and planners have indicated that the fundamental needs of man, and therefore the primary objectives of all planning and development, are useful and appropriate employment, reasonably good food, clothing and shelter for all. Some add good health to the list. I am reminded of the story of the man who prayed to the Almighty for favours, and when the Deity appeared and promised the grant of just one boon or wish and no more, asked that it should be given to him to look from the third floor of his house, at his grandchildren playing in the compound. The grant of this wish to the clever devotee, ensured to him adequate wealth to own a three-storeyed house, a goodly progeny and good health, to live long enough and see with unimpaired vision.

If I were praying for a boon today, I should imitate his excellent example and ask only for good health. For, unless your food, shelter and environments are reasonably good, unless you have the clothing suited to your climate, and unless you have congenial and useful employment and thus secure mental peace, you become a prey to one or other of the multitude of diseases which assail man.

But alas, the days of the intercession of the Almighty and the grant of boons seem to be no more, probably because in the bustle of modern life, we are unable to concentrate in prayer or because we have forgotten how to pray or because our environments and our selfishness preclude a successful attempt. Instead, we demand loudly that the State should provide the various ingredients and facilities which go to make and preserve good health. Thus we ask for proper town-planning and housing, with protected water-supply and drainage, but when these are provided, many choose to live uncleanly, forgetting the effects of their action on their fellow-citizens.

Nullifying State Benefits

We ask that the State should secure for us freedom from disease, insects and germs, but when this is sought to be achieved, we ourselves create, through ignorance, carelessness or selfishness, the precise conditions in which insects and germs can thrive and attack man. We ask for food and clothing but when luckily we have these, we gorge ourselves with the wrong kind of food and wear the wrong clothes, and get uncomfortable and ill. The fact is, Man sometimes does his best to live unwisely, but clamours for relief from disease and physical suffering, often brought on himself and others as well by his own folly.

The State does not therefore leave man to his own devices but does its best to provide all the requisite facilities for good health and living, to the extent it finds possible, with the resources made available to it by the people themselves. It seeks to educate the citizens to live cleanly and healthily with the facilities and amenities so provided. It also enforces, in the interests of the entire community, the maintenance of clean and sanitary conditions of living. Now what are the facilities the Government and other public bodies provide and enforce in our

State? The State acts on the sound principle that prevention is better than cure, and when prevention has not proved effective, as is sometimes the case, it provides medical relief to overcome disease, infirmity and suffering. I propose to refer briefly here to the public health facilities provided. Curative facilities are quite another story.

Water-Supply and Drainage

Probably the most essential preventive measure, in our conditions, is protected water-supply and drainage. Government have planned to provide every Municipal area with protected water-supply and drainage in a period of 20 years and are actually implementing a programme under which about 60 specific schemes in 45 municipalities will be executed, in order of priority of need, during the first five years, commencing with the current year. Municipalities which are responsible for the provision of these amenities, cannot in present conditions find all the funds required for the programme. The State therefore expects them to meet only as much of the cost as they can, from accumulations in their water-supply and drainage funds and by means of taxation up to a reasonable limit, to finance loans. The entire balance, even if it exceeds half the cost, the limit of State assistance hitherto, will be met by the Government.

The total cost to the Government under the first five-year programme is expected to be over two crores of rupees. There are, however, difficulties in implementing this programme, on account of the lack of the requisite cast-iron pipes and other materials, and skilled technical personnel. The Government have arranged to purchase a reserve stock of pipes and fittings for these schemes to the tune of 38 lakhs of rupees, and would have secured further supplies from abroad, but for the inability of the Central Government, in present conditions, to give them even loans to finance such purchases. It is hoped that conditions will soon improve and enable Government to complete the programme according to schedule. In the matter of water-supply in the rural areas, however, we have been more fortunate. A specially accelerated programme of work is in progress, financed from a special fund of a crore of rupees, to which a sum of 15 lakhs of rupees is added every year. Before long, rural areas which are badly in need of drinking water will be provided with supplies.

Town-planning Schemes

Lack of finance and technical personnel is also standing in the way of the implementation of desirable town-planning schemes. But every effort is being made to have schemes prepared and executed to the extent the limited resources available permit. Constructions and alterations of buildings are carefully regulated by local bodies, under general State control in accordance with a salutary set of building rules, to secure the best health conditions possible. For instance, no building is allowed to be put up near another, unless sufficient space is left,

in between for light and ventilation. No dangerous or offensive trade or manufacture is allowed in a residential area. Everything is to have its proper place, but success in such measures will be complete only if each member of the public is unselfish, and places the common good above advantage to the individual.

Campaign against Disease

A very important item of preventive work which the Government have been concentrating on is the eradication of common diseases like malaria, filariasis, cholera, small-pox and plague which occur in epidemic or endemic form and take a heavy toll of lives. Scores of comprehensive anti-malaria and anti-filaria schemes, using modern equipment and chemicals are now in operation, some with the active assistance and co-operation of the World Health Organization. The cost of these schemes to the State Exchequer in the current year, in addition to what local bodies are spending, will be over 13 lakhs of rupees. Vaccinations and inoculations are carried out everywhere to protect the population from the common scourges like cholera, small-pox, plague and enteric.

A noteworthy arrangement, recently introduced, is to concentrate on this work well in advance of epidemics, the occurrence of which is intelligently anticipated in the light of past experience, and with reference to seasonal and other conditions. This campaign against disease, and particularly epidemics, is backed by routine action designed to secure efficient sanitation and proper conservancy, executed by local bodies under the supervision of Health Officers under the ultimate control of the Government. Inspection of lodging and eating houses and the sale of food generally are among the measures taken to maintain public health. Admittedly, the Government and local bodies are not in a position, in present conditions, to secure and employ adequate numbers of trained public health personnel of all grades, but they are making the fullest possible use of the resources available to them in men and money.

Apathy of the People

But how many of us are actively conscious of even the routine measures employed and assist in them. I am referring to the usual removal of filth and rubbish, the proper cleaning of premises and streets, the improvement of dirty and insanitary surroundings, and preventive vaccination and inoculation, especially in advance of epidemics which we know to be likely. The average citizen does not, unfortunately, bother about these things and treats them as though it is none of his business. A senior and experienced health official was telling me the other day that when health staff make visits in advance of a threatened epidemic, few people get themselves inoculated but once actual attacks occur and particularly if they are among those not protected, the people readily get themselves inoculated.

In the meantime, damage has been done and public health in the area endangered. With a little forethought and co-operation from the public, the epidemic might possibly have been prevented altogether, or at least kept in strict check. If every citizen keeps his surroundings clean with the help of the sanitary staff and protects

himself as advised, there is bound to be a marked improvement in the health of the people. Indications are, however, not wanting that he is getting increasingly health conscious and feels it is his duty to help. In the meantime, the Government and local bodies do not hesitate to use coercive measures, where required, for the good of the people as a whole, and as a result the death rate is gradually declining.

Healthy Mother : Healthy Baby

For a mother to give birth to a healthy baby and to survive the ordeal is an achievement which every modern State wishes to secure, with the minimum of failures. Without healthy mothers and healthy offspring, there can be no strong and healthy nation capable of defending itself and contributing to its own happiness. Maternity and Child Welfare have therefore figured very prominently among the activities of the Government and local bodies. Advice and guidance during the pre-natal stage, as well as post-natal care, are provided in the 452 Maternity and Child Welfare Centres in this State, which employ 99 Women Medical Officers and 814 Midwives.

The numbers of centres, Women Medical Officers and Midwives are constantly being sought to be increased with the co-operation of local bodies and the assistance of Government grants ranging from a fourth to one-half of the cost. The total amount of such grants made by the Government in the current year is about Rs. 2,04,423. It is gratifying that parents have found the centres most useful and mothers flock to them. The number of confinements attended to by these centres is : 1947—91,748 and in 1948—113,762. Infant mortality which, used to be over 200 per thousand live births in the past, was only 128 in 1948. Sixty-one new Maternity and Child Welfare Centres were opened in the current year.

Legal Sanctions Behind Measures

What is the sanction behind all these health measures, one may ask? The answer is that in this State we have a comprehensive Public Health Act, backed by provisions in the Local Boards and Municipalities Acts, which provides for practically every possible contingency. These provisions enjoin specific duties and responsibilities on every citizen and local authority and empower the appropriate categories of the health staff to enforce salutary and accepted regulations and practice, in order to preserve and improve the health of the people. Madras is proud of the fact that it was the first State to place such a comprehensive measure on the Statute Book. The working of the Act so far is being carefully reviewed and it will be amended or added to, to the extent necessary to secure a further improvement in public health.

The magnitude of the task involved and the facilities provided may be gauged from the fact that, in addition to expenditure by local bodies from their own revenues, the State Government will be spending as much as 120 lakhs of rupees on this account in the current year. This State is probably second to none in India in the matter of public health facilities but they are being constantly improved and enlarged. A good deal has been achieved but a lot more remains to be done, with the co-operation of the people.

(By courtesy, A.I.R., Madras.)

The Krishna-Pennar Project

By Janab T. P. KUTTIAMMU, B.E., A.M.I.E., Executive, Engineer, Krishna-Pennar Project

About thirty-two lakhs of acres of land to be irrigated under first crop with possibilities of raising second crop in 16 lakhs of acres, producing about two million tons of food-grains and generating two hundred and fifty thousand or quarter of a million kilowatts of hydro-electric power, spread over Kurnool, Cuddapah, Chittoor, Krishna, Guntur, Nellore, Chingleput and South Arcot Districts—these are prospects that unfold themselves as the potentialities of the great Krishna-Pennar Project. Preliminary investigations of this project are reaching a concluding phase and skeleton estimates are expected to be ready in about two months. What was an engineer's dream about three years ago is given a practical shape, various aspects of it—technical, practical and economic—having been examined by intensive field work, laboratory tests and scientific analyses, and a sound and eminently practicable scheme evolved.

Though the outline will be ready shortly, further investigation will be needed in the second phase to fill the outlines. The benefits of the scheme will be immense and lasting and when fully developed, it will have (along with its sister scheme the Ramapadasagar Project) changed the face of South India into a self-sufficient, self-respecting and prosperous country.

How very critical our condition is on the food front needs no explanation. Not all the efforts that are made to tide over the crisis by short-term expedients can effectively solve the problem. The final solution can only be looked for by bringing under the plough lakhs and lakhs of acres of food lands with assured water supplies. Such dependable supplies in large quantities are available, so far as South India is concerned, only in the Godavari and the Krishna, 90 per cent of whose flows are now running to waste into the sea. If only half of this water is harnessed, the irrigation and power that can be generated under it will be enormous, with resulting benefits to the country's progress and prosperity.

Magnitude of Task

The Krishna-Pennar Project deals with the harnessing and utilisation of the surplus waters in the Krishna. An outline of the main works included in the Project will be given presently and these are very big indeed. They are big in conception and the works involved are of great magnitude. The river diversion and foundation work for the Someswaram Dam, the great cutting of the Mitta-kondals Ridge and the excavation of certain parts of the canals will require careful planning and extensive use of machinery. But these considerations or the high cost of the whole project need not deter its early sanction and commencement. The project can be executed in stages, each stage costing amounts within our financial resources, and yielding results partly meeting and reimbursing portion of the costs by way of revenue realised. For instance, if the Krishna Dam alone is constructed, say, to about three-quarters of its capacity, to the crest of masonry spillway, it can store up waters to an extent of about 200 T.M.c.ft.

and bring a million acres in the Krishna Delta under second crop immediately.

Hydro-electric current to an extent of thirty thousand kilowatts can also be generated, which will also immediately become useful for the Ceded Districts and other poorly developed areas. Similarly, the Pennar Dam can bring a lakh of acres under second crop in good years. Feeders from the Pennar Dam to existing tanks will stabilise supplies and increase second crop areas under the tanks in Nellore and other districts in the early phases. In this manner the various parts of the project can be taken up in properly planned and well-integrated stages.

Main Works in Scheme

The Project consists of the following works:

(i) A masonry dam and reservoir of 290 T.M. c. ft. capacity across the Krishna at Siddeswaram.

(ii) A concrete dam and reservoir of 260 T.M.c. ft. capacity across the Pennar at Someswaram.

(iii) A canal of great capacity cut across the ridge separating the Krishna and the Pennar valleys and connecting the Bhavanasi and Kunderu rivers. This canal, called the Krishna-Pennar Canal, will feed the Someswaram Reservoir across the Pennar and also supply a net work of canals for direct irrigation.

(iv) A branch of the Krishna-Pennar Canal, called the Krishna-Pennar West Canal, aligned on falling contours, along the slopes of the Yerramalai range of hills for about a hundred miles and tailing off into a small balancing reservoir across the Pennar at Mylavaram, a little below Gandikota.

(v) A branch, called the Krishna-Pennar East Canal, aligned on falling contours along the slopes of the Nallamalai range for about 70 miles linking up with K.C. Canal at intermediate points and tailing as a small channel into Pennar Reservoir.

(vi) A pick-up barrage across the Pennar about two miles below the Someswaram Dam to head up water for commanding the Pennar North and South Canals taking off above it.

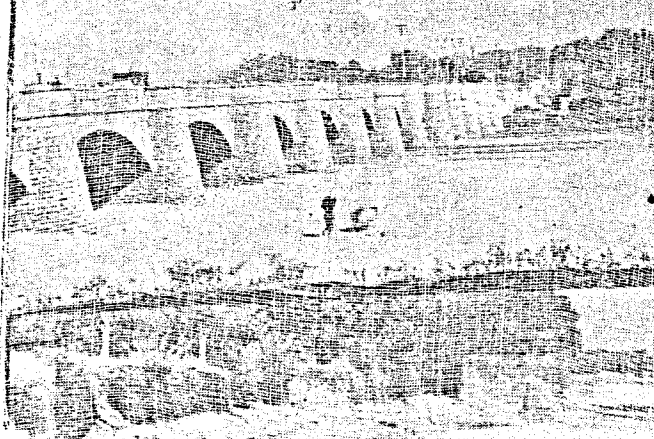
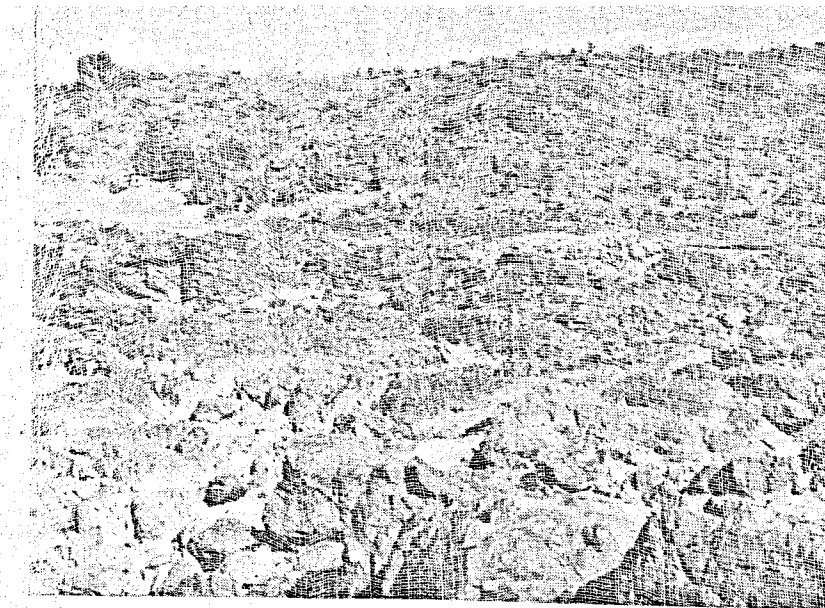
(vii) The Pennar-North Canal taking off here and aligned on falling contours for a length of 120 miles and tailing off into the Gundlacamma River in Guntur.

(viii) The Pennar South Canal taking off at the same barrage and aligned on falling contours for a length of 300 miles and tailing into the Vellar in South Arcot.

(ix) A new canal (Kanapur Canal) taking off above the Sangam Aicut across the Pennar.

(x) Hydro-electric power development works at the two dam sites and at six major drops on the canal lines.

(xi) Other connected works for improvement of drinking water supplies to various towns including Madras City, limited navigation facilities, development of fisheries, improvement of communications, provision of picnic centres, etc.

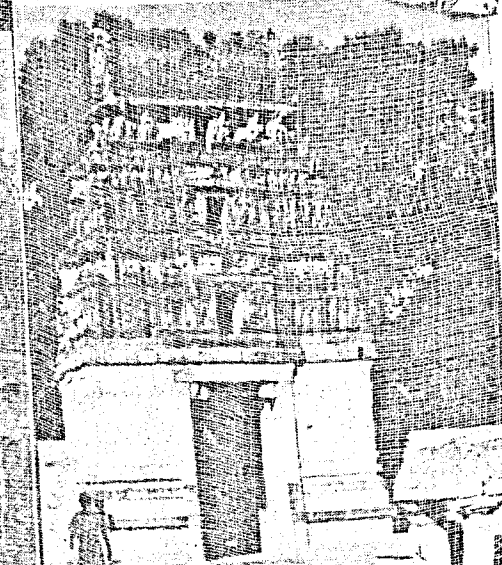
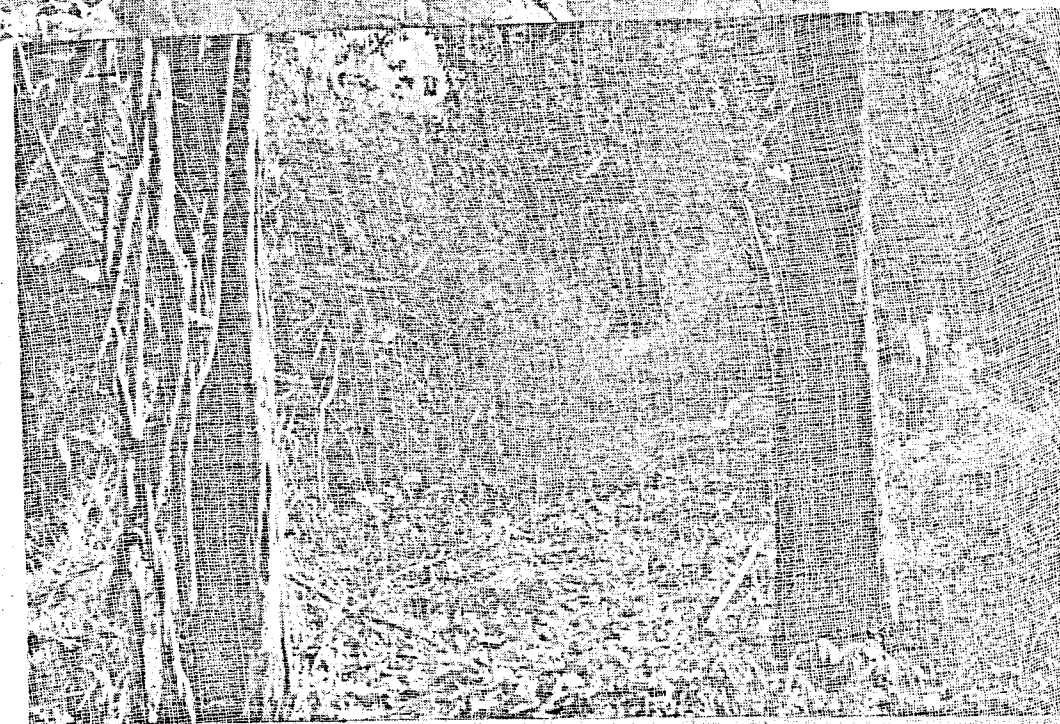
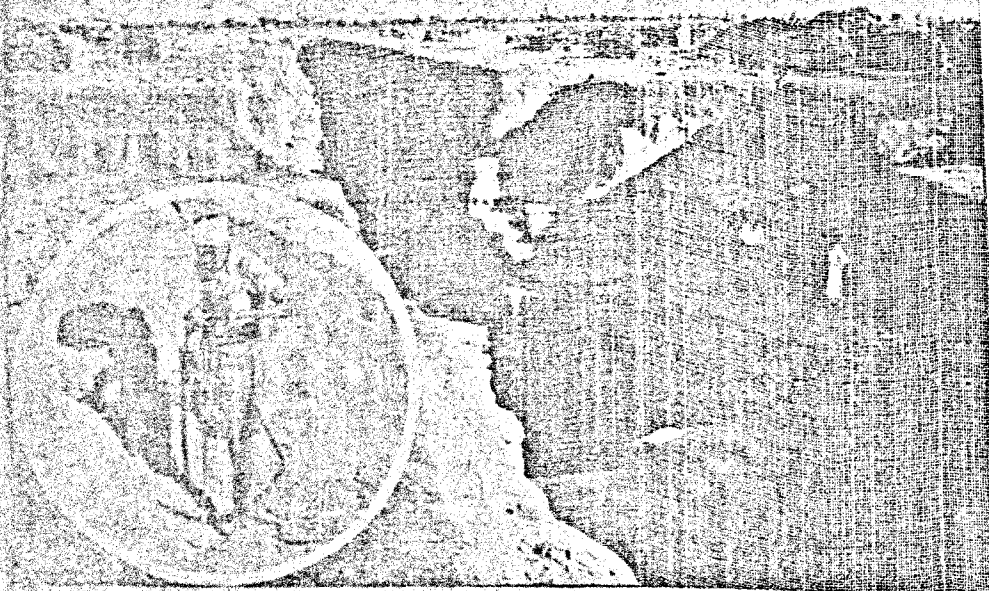
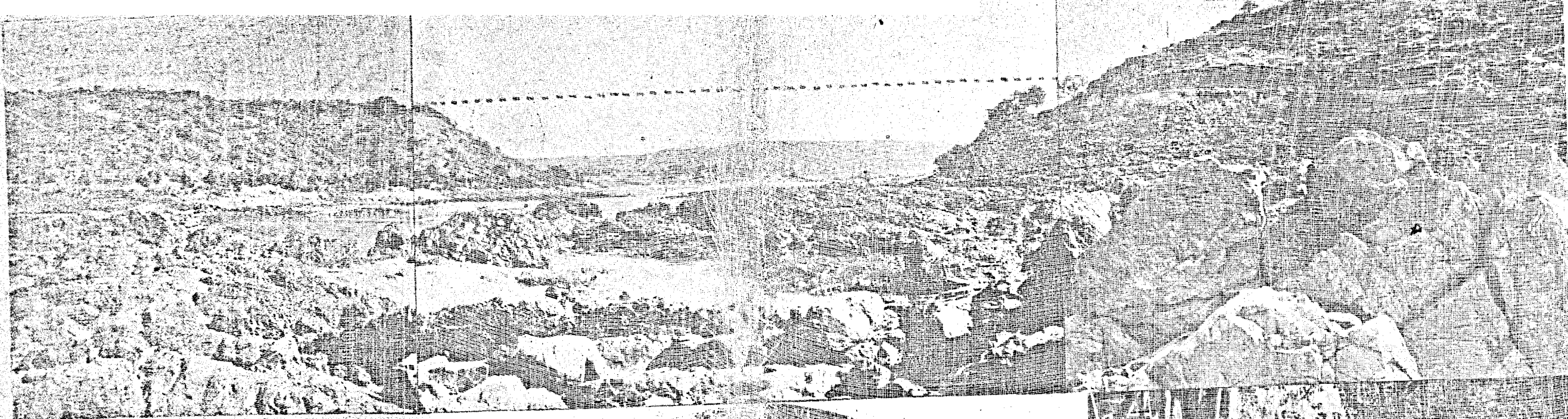


Top : Rock at left and right abutments of Krishna Dam

Centre : Calyx drill tests to determine nature of foundation at dam site

Left and bottom : Hindri Aqueduct and Tungabhadra Bridge at Kurnool Waters of Krishna Reservoir will back up to these and skirt the town

plc
106



THE KRISHNA—PENNAR PROJECT

Top: The Krishna Gorge at Siddeswaram. Dam across the gorge will be 1,600 feet long and 150 feet high.

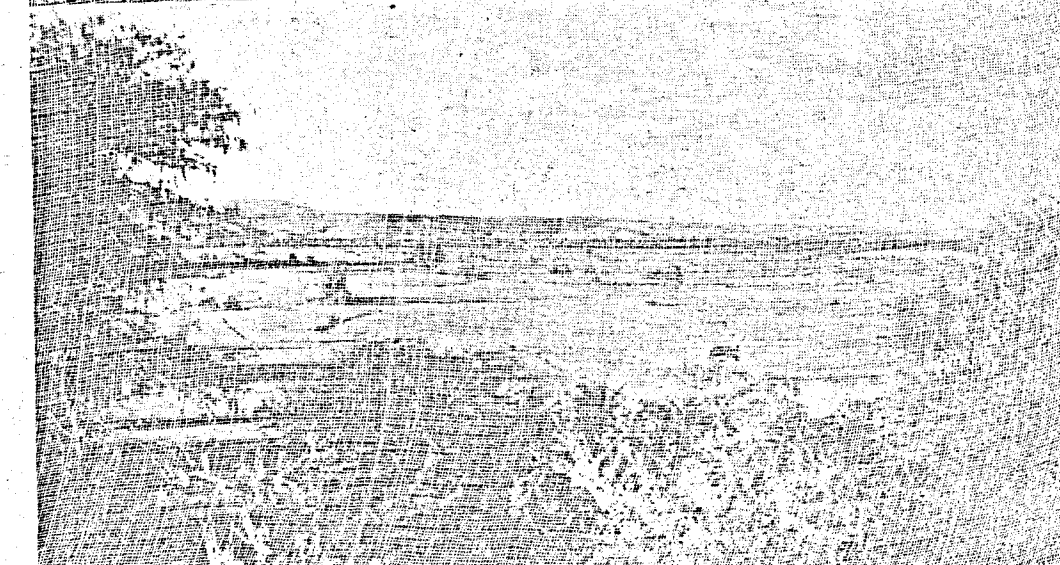
Left (centre): Experimental excavations at the Pattakondala Ridge

Left (bottom): Nippulavagu, near Vempenta, from where the East and West canals take off

Right (centre): Drop site at Prema on the Ballamalais Hills

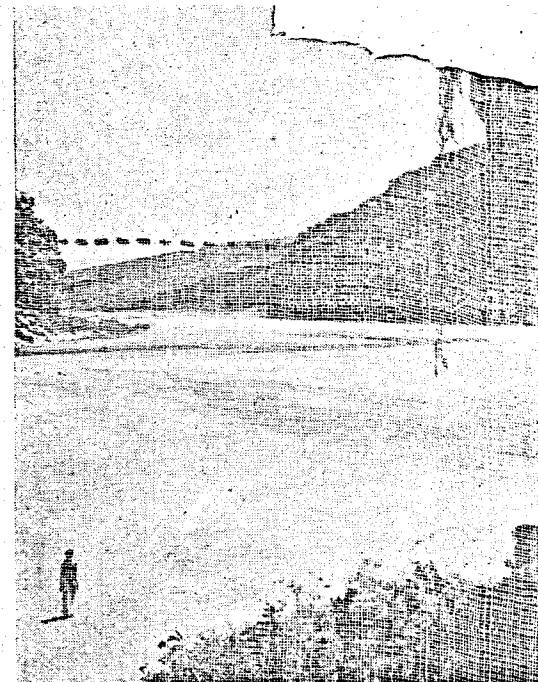
Right (bottom): Hills, tank and cultivable land near Ouk

Centre: Bavanasi River bed and Someswaram temple





Top (left) : Pennar bed at Mylavaram. Earth Dam here will be two miles long

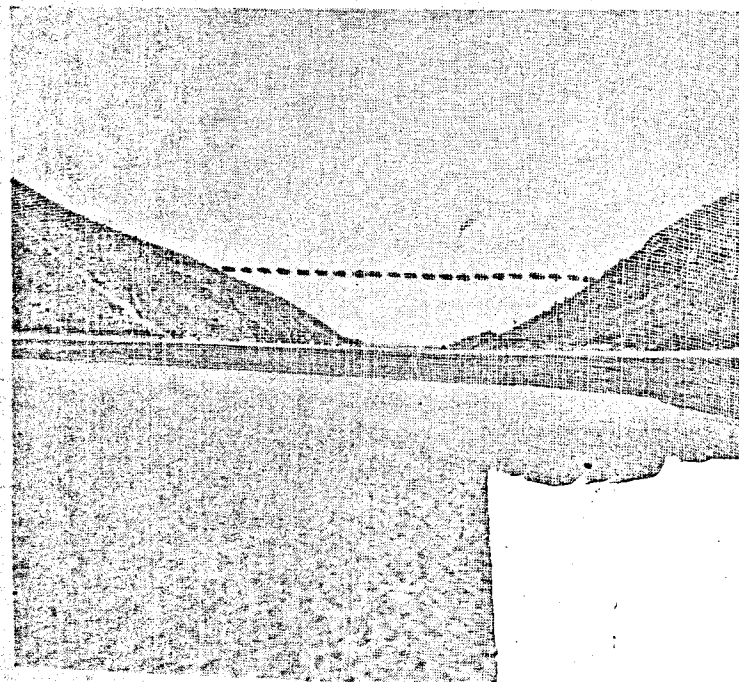
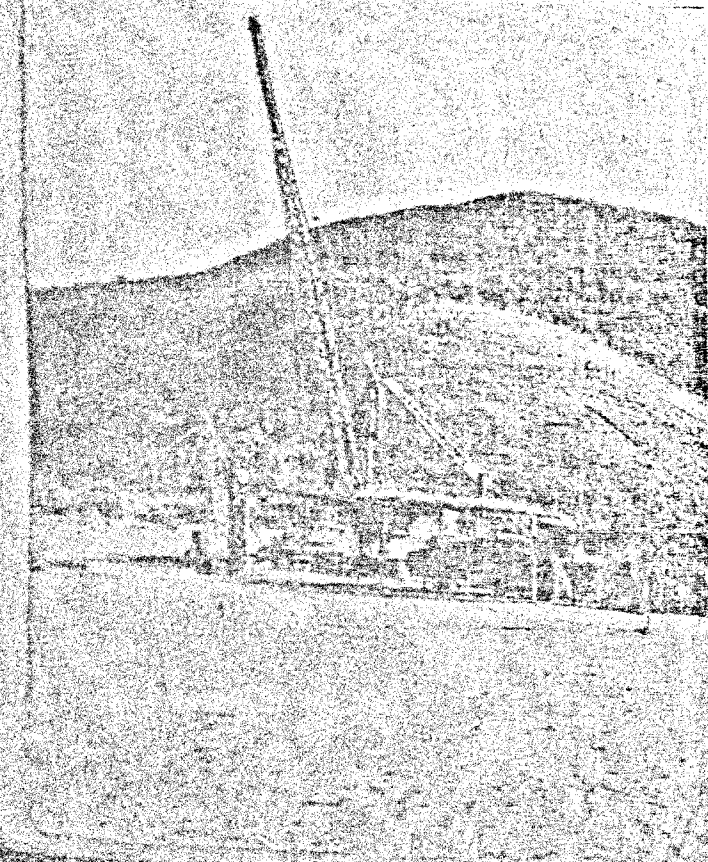


Top (right) : The Gandikota Gorge

Centre (right) : Pennar Gorge at Someswaram. Dam here will be 1,200 feet long and 250 feet high

Bottom : Pile driving tests using power hammers

Bottom (right) : Pumping tests



Location of Dams

The Krishna Dam will be constructed at Siddeswaram where the river enters the Nallamalai Gorge in the Eastern Ghats. This is about ten miles below the confluence of the Krishna and the Tungabhadra. The reservoir with Full Reservoir Level, just skirting Kurnool Town situated 35 miles away, will have a waterspread of about 300 square miles. The dam will be 2,700 feet long and 150 feet high and will be provided with drum gate spillway and about sixty sluices designed to dispose of a maximum flood of a million cusecs.

The Pennar Dam will be constructed at Someswaram where the river enters the gorge in the Eastern Ghats. The reservoir at F.R.L. will have a waterspread of about 200 square miles. The dam will be about 2,200 feet long and 250 feet high above foundations. It will be provided with spillway and sluices to surplus half a million cusecs during floods. Firm rock is available some 80 feet below the sandy bed of the river. The foundations will therefore be constructed in two stages, half of the river being contained in turn within suitable coffer dams.

The canals are aligned so as to get the best out of the waters that are available. The first crop ayacut will be 3.2 million acres total and as far as can be seen, will be distributed approximately as below :

	ACRES IN LAKHS
Kurnool district	4.5
Cuddapah district	3.0
Guntur district	1.5
Nellore district	13.0
Chittoor district	1.0
Chingloput district	6.5
South Arcot district	2.5
Total	32.0 or 3.2 millions.

About half of this ayacut, including some second crop in the Krishna Delta, will be able to raise a second crop in good and normal seasons.

Hydro-electric Stations

The locations of the hydel stations will show how well they are distributed over the districts of Kurnool, Cuddapah, Nellore and Chittoor. The Pennar South and North Canals will be partly navigable. The system will be provided with well-designed fish ladders and the development of inland fisheries in the canals and reservoirs will be of a very considerable magnitude.

And so will the project start and sustain an era of great prosperity for these areas in particular and for the country in general. Lands that are lying dry and parched up will be turned to smiling fields, yielding rich food. Cheap power will be available at every door, and famine and scarcity will be a thing of the past. For the Krishna which has been rolling down for centuries mercilessly into the sea will have been harnessed and coaxed to spread its life-giving waters over these lands in times and measures so badly needed by them.

Transfer Of Border Villages

The attention of the Government has been drawn to a recent editorial in a leading Tamil daily in which the transfer of certain villages from Tirunelveli District to the United State of Travancore and Cochin has been criticised as one-sided. The main theme of the criticism is that while villages in the Union Territory in Tirunelveli District have been transferred to the United State of Travancore and Cochin, the villages of the United State lying within the borders of Tirunelveli District have not been similarly transferred to the jurisdiction of that district and that this Government have failed to press for the transfer of these villages to Tirunelveli District.

In October 1949 the Government of India informed this Government that the question of the rationalisation of the boundaries as between States and Provinces and between States *inter se* by adjusting small bits of territories had been engaging their attention for some time and asked for proposals of this Government regarding the transfer of enclaves within their borders to the concerned bordering States and *vice versa*. The following villages within the borders of the United State of Travancore and Cochin were attached to Tirunelveli District :

	Area in acres	Popula- tion
Anjengo	100	7,808
Thangasseri	275	3,234
Portion of Panagudi	15	..

Anjengo and Thangasseri are coastal villages 25 miles apart from each other. It was felt by the Madras Government that this small area being purely a Malayalam speaking area could, for the sake of administrative convenience, be transferred to the United State of Travancore and Cochin. As regards Panagudi, there seems to be an impression that the entire village of Panagudi has been transferred to the United State of Travancore and Cochin. This is entirely contrary to facts. Panagudi village proper is not an enclave within the borders of the United State of Travancore and Cochin. But an extent of about 15 acres comprising three survey fields in that village is an enclave within the borders of the United State and it was this small bit of territory only that was transferred.

The newspaper referred to has stated in the editorial that this Government did not press for the transfer of villages belonging to the United State of Travancore and Cochin lying within the borders of Madras State. The rationalisation of boundaries as between States and Provinces and between States *inter se* was intended to be confined only to the adjustment of small bits of territories and it was not intended to take up any proposals involving any substantial increase in or diminution of the territories of any of the Provinces or States. Of the six villages concerned five form one compact block, while the sixth one is a separate area, and the entire extent of these villages is about 28 square miles. Transfer of such big blocks of territories was not intended to be brought within the scope of the programme of rationalisation of boundaries.

Preservation Of Wild Life

By Sri M. KESAVAN UNNI NAYAR, I.F.S., Chief Conservator of Forests, Madras

An axiomatic saying which is often repeated in times of grave emergency is that no one thanks an ancestor who hands over to him only destruction, ugliness and poverty. This era of ours has been described by a scientific philosopher as the close of the age of mammals. Travellers, photographers, sportsmen, naturalists and conservers of wild life from every part of the world, from Canada and the United States, from Greenland and Alaska, from Europe, from Asia, from India and Malaya are crying out the warning that wild life is being destroyed at a far greater rate than it can reproduce itself.

The agencies of destruction are very many—by means of fire-arms, by poison, by traps, by nets, by collectors, by trade and vested interests, etc., and they operate over the entire surface of the globe. Birds of the air, the leviathans of the sea, the warm-blooded creatures of the land are all attacked continually and relentlessly by what may be called "the regular army of destruction." All these could, if we choose, be so rigidly regulated for the benefit of mankind that no species need be exterminated.

It is an unfortunate circumstance that the vast majority of men and women know nothing of "Natural History" and they are therefore led away by those who thoughtlessly urge that the various forms of "big game" animals—Elephant, Rhinoceros, Tiger, Bear, Sambhur, Deer and so on must give way to the so-called march of civilization.

Links in the Chain of Evolution

The animals are links in the chain of Evolution. They often display marvellous adjustments in relation to their environment. Our knowledge of the agencies which have moulded them is yet very far indeed from being perfect. The key is to be found in their living bodies as much as in their stuffed skins or skeletons. These we must have in order that we may follow our conclusions to their logical end. We can no longer remain complacent with the

A young Rhinoceros bogged in a mud-hole



thought that Man is made only "a little lower than the Angels." The more we learn of the mysteries of life, in all its manifestations, the better shall we understand our own bodies, and the sources and trend of that intelligence and speech which Man proudly proclaims as his own.

In the great wilds of Africa where at one time animals roved in peace, many have already been exterminated. The Blue Buck, Burchell's Zebra and the Quagga are mere memories of the past. We find the same miserable story in Canada. When great flocks of the Passenger Pigeon passed, its numbers are said to have darkened the sky. Yet it was wiped out of existence by a trade interest in just a few years. The Great Auk, the Dodo, Stellers Sea Cow, the Giant Land Tortoise of Australia were swept away by the early mariners. The Musk-Ox (as a wild species) is almost gone. The Wapiti, the Caribou, the Moose are all retreating. The Polar Bear is scarce and the Grizzly Bear has been driven to secluded fastnesses. It is said that he has even changed in temper as in life. The faintest whiff of man scent is now enough to make him run for miles.

Extirpation in India

What has happened in India? A common bird not many years ago was the Great Indian Bustard which is now becoming increasingly scarce. The Monal Pheasant and the Trapogan of the Himalayas would have been wiped out of existence but for the prohibition of export of plumage. Other birds saved from the lucrative plumage trade are Peacocks, Black Partridges, Egrets, Jungle Cocks, Kingfishers, Jays, Rollers, Orioles and so on. The Great One-horned Rhinoceros of North India might have been a story of the past but for stringent measures undertaken to protect them. A close relative was the Lesser One-Horned Rhinoceros still remembered by many as an inhabitant of the Sunderbans jungles. Not one now exists on the soil of India.

The Asiatic Two-Horned Rhinoceros not uncommon in parts of Assam, has disappeared for ever. The Indian Antelope or Black Buck, that fascinating animal, is in grave danger of extermination. The Hunting Leopard, once the pride of Central India, is now practically extinct in the wild state. The Wild Buffalo has almost gone from the area east of the Godavari River. The Asiatic Lion once numerous in the plains of Central India, is just surviving in its last stronghold, through careful protection, in the Gir forest of the Junagadh State in Kathiawar.

Classical References

Kleitarchos the historian accompanied Alexander the Great in his Asiatic expedition and described an Indian bird called the Katreous as follows:

"It is of surpassing beauty; it is about the size of a peacock; and the tips of its feathers are of an emerald green. When it looks at others, you cannot distinguish the colour of its eyes, but when it looks at you, you would say

that they are vermilion except the pupil. This is tinted like an apple and its glance is keen. That part of the eye which is white in others, is in the Katreous a pale yellow. The down on its head is azure, but here and there variegated with spouts of saffron, while its legs are of an orange colour. Its voice is melodious and thrilling like the nightingale. The Indians keep them in aviaries that they may be able to feast their eyes with their loveliness."

Ktesias, who held the distinction of having been the first writer who gave to the Greeks a special treatise on India and who was Physician in the Royal Court of Darius II and his successor Artaxerxes Mnemon of Persia, describes in his *Indika* an Indian beast called the Martikhora as follows:

"Its face is like a man's—it is about as big as a lion and in colour red like cinnabar. It has three rows of teeth, ears like the human, eyes of a pale blue like the human, and tail like that of the land scorpion, armed with a sting and more than a cubit long. It has, besides, stings on each side of its tail end, like the scorpion, is armed with an additional sting on the crown of its head, wherewith it stings anyone who goes near it, the wound in all cases proving mortal. If attacked from a distance, it defends itself both in front and in rear—in front with its tail, by uplifting it and darting out the stings like shafts shot from a bow and in rear, by straightening it out. It can strike to the distance of a hundred feet and no creature can survive the wound it inflicts save only the Elephant. The stings are about a foot in length and not thicker than the finest thread. It carries off men and devours them, though it no doubt preys upon other animals as well. In fighting, it uses not only its stings but also its claws. Fresh stings grow up to replace those shot away in fighting. These animals are numerous in India and are killed by the Indians who hunt them with elephants, from the backs of which they attack them with darts."

Photographs and map reproduced by kind courtesy of the Forest Research Institute, Dehra Dun.

Cover page depicts a tigress in its native haunts.

In the rich and varied fauna, Nature has endowed this country with a magnificent asset. The association of wild life with the folk-lore and legendary beliefs of the country is an interest not confined to India alone but has spread among men of culture throughout the world. Is there one child who does not crave for stories of wild animals? It is not mere sentimental value that can be attached to wild life. How very few realise that birds render incalculable service to man! Without them, our crops and orchards, in fact our whole food supply would be devoured by hordes of ravaging insects.

Even the tiger, which is generally looked upon as the enemy of Man, has its own place in the balance of Nature, which benefits Man. The natural food of the tiger in the jungle is the deer which it hunts relentlessly. The deer is also a crop raider. What happens if man reduces the deer population by indiscriminate poaching and killing. The tiger is forced to prey on cattle, change its habits and hunt by day. In doing so, sometimes it attacks man. The



Deer Barking Deer approaching across log

wild pig is even worse as a crop destroyer and would breed beyond limits, had it not been checked by the tiger and the panther.

Madras State can still claim to possess a large number of interesting and enchanting wild birds and animals. Among these are the glorious Peacock, Jungle Fowl, Oriole, Woodpecker, Roller, Kingfisher, the Great Indian Bustard, Egret, Heron, Duck, Teal, Partridge, Quail and host of other birds. Among the animals we have the mighty Elephant, Tiger, Panther, Bear, Sambhur, Spotted Deer, Barking Deer, Mouse Deer, Black Buck, Bison, Ibex or the Nilgiris Goat, Nilgai or the Blue Bull, the Malabar Squirrel, the Black Monkey and several others. These animals have all retreated to the only place of refuge they can find—the Reserved Forests under the control of the Forest Department.

The Indian Fox



Game Preserved in Reserved Forests

The Madras Government have framed game laws and shooting rules for the preservation of game in Reserved Forests. These rules prohibit the shooting of certain animals which are threatened with extinction such as the Nilgai, Mullar Squirrel, Mouse Deer, as also the shooting of females and immature males of what is designated 'Big game' namely Sambar, Spotted Deer, Bison, Ibex, Black Buck, Barking Deer, etc. Shooting licences are issued to sportsmen in which the number of animals that can be shot in a year is restricted. Close seasons are prescribed for birds. There are also other rules.

There is a Wild Life Sanctuary constituted at Mudumalai in the Nilgiris covering an extent of 23 square miles, where animals may live in peace, free from molestation by Man. The Sanctuary is open to visitors to observe Wild Life in their natural surroundings for which departmental elephants are provided on payment of a nominal fee.

Threat to Wild Life

In spite of these measures, game laws and rules are often violated and poaching has become rife in many parts of the State. Outside the Reserved Forests Wild Life is virtually at the mercy of unscrupulous destroyers. We are faced with the spectacle of wild life fading away under constant threat of extinction. Shall we continue to be indicated with the charge that wild life has been given by God to kill, so why not kill it?

Our Prime Minister of India spoke in April last year: "It is through our great culture, religion and art that India's story spread far and wide in the past." How much has this past renown owed to the wonderful variety of Wild Life which has been our glorious heritage!

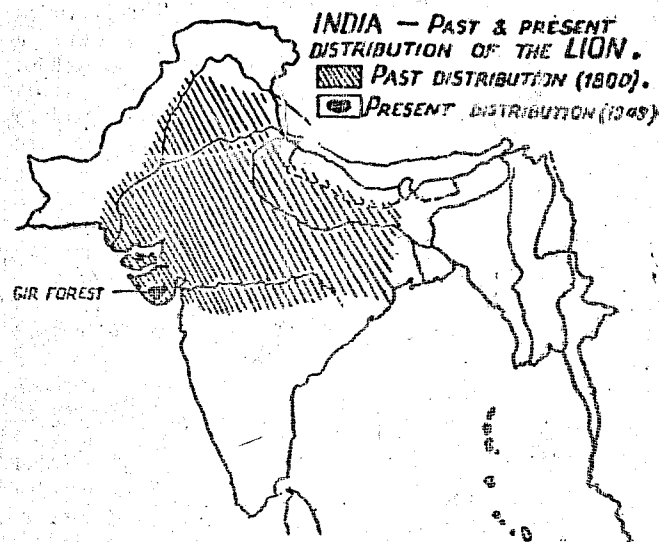
BOOK REVIEWS

TIRUCHENDUR, THE SEASHORE TEMPLE OF SUBRAMANYA

By Sri J. M. SOMASUNDARAM, B.A., B.L.,
8/9, Singanna Naick Street, Madras-1
Price—Rs. 2-8-0

South India is famous for its majestic temples and Murugan or Subramanya is one of the ancient Deities of Tamil Nad. Even some three thousand years ago, i.e., in the days of *Tolkappiam*, the earliest extant Tamil Grammar, reference is being made to the Lord Muruga, known as "Seyan", the God of Mountains and Hills. In later days, when the art of building temples came to be patronised by the kings and chieftains of the South, normally, temples for Lord Muruga were erected on the hills such as Palni, Thirupparankunram, Thiruttani, etc. The speciality of the temple at Tiruchendur is that the Lord of the Mountains came to be enshrined on the sea shore. This exclusive feature may in all probability, explain the spread of the Murugan cult from the tops of green hills to the shores of the blue seas.

About 443 miles south of Madras City, in the southern most extremity of the district of Tirunelveli, stands the time honoured temple of Tiruchendur. The walls of the holy shrine are washed by the waves of the Gulf of Mannar



Map of India showing past and present distribution of the Lion

So long as Wild Life can be preserved in their natural surroundings, they are potential sources of knowledge of immense importance to us and those who come after us. Let us not then recklessly and callously destroy what we cannot replace. We are the trustees for Posterity. We do not hold the right of Life and Death in our hands, to exercise as we will, to serve our selfish ends. Let us then wake up and arouse public interest to this most urgent need of preserving what heritage that remains.

(By Courtesy A.I.R., Madras).

and it looks as though the Lord of the Seas pays his homage to the Lord of the Mountains by folding his 'wavy' hands in salutation according to the Hindu custom.

In this book, a vivid description of the temple and history of the place are furnished in the most lucid form. The author had the privilege of serving the Temple for some time as its executive officer, and no wonder he gives authoritative and authentic information regarding all aspects of the temple. A deep scholar and a renowned writer in Tamil, the author has done full justice to the presentation of all necessary and interesting facts regarding the temple and other noteworthy places nearby. He has also taken care to compile all the traditional stories associated with the temple and the pieces of literature sung in praise of the Presiding Deity. The story concerning the renovation of this temple by the three sages or swamis, who by their ardent devotion and unstinted perseverance, completed this Herculean task in over a century, is graphically narrated in these pages.

This book will prove of immense value not only to the pilgrims interested in holy shrines, but also to the research scholars and tourists. The Thiruvaduthurai Adhinam deserves to be congratulated for having helped the author in publishing this valuable brochure. It will be desirable to have books on these lines brought out for every major shrine of Madras State.

S.V.

Voice Of The People

Recently *Dinazari*, a leading Tamil daily of Madras City, invited the views of its readers on the question of depredation by subversive elements. The letters received in response to the request and published in the paper, form a representative collection of the views of a cross-section of the people in different spheres and different places. Extracts from these letters are given below as reflecting the views of the common man on the threat to law and order by subversive elements.

Sri A. Raju of Erode declares that the saboteurs should be killed in public.

Sri P. V. Alagesan of Grusanvipalayam suggests transportation for life.

Sri K. A. A. Palaniappa of Chennimalai appeals to the public to safeguard the railways by standing as sentinels near the lines, one man to each telegraph post.

Sri Varadan of Vellore suggests that the military should be called out to put down the menace.

Sri V. Varadarajan of Gandhipuram appeals to the Congressmen to come forward with greater vigour to do service to the people without selfish motives.

Sri K. G. Ramaswami Mudaliar of Tirupattur (North Arcot) urges that the Government should arrest the Communists and shoot them without conducting trials in Courts.

Sri M. Andhraj of Oorgaum requests the Government to permit the public to behead the Communists wherever they are caught.

Sri T. Ganapathi Appan of Tenkasi quotes *Tirukural* in support of his contention that those who rule the land should punish the wrongdoers without any compassion.

Sri C. Munuswami Gounder of Bhavani suggests that the Government should declare forfeit the surplus wealth of the rich classes as they did in the case of zamindars with a view to wipe out poverty.

Sri P. A. Narayanaswami of Madras opines that the good points in Communist programme should be adopted, but condemns the violent acts of terrorism.

Sri M. S. Ghouse of Rayapuram says that wrongdoers should be punished severely. He adds that communal fanatics and job hunters should find no place in a national Government.

Sri R. V. Ramanatha Rao of Madras is of the opinion that wealth should be equally distributed amongst the people with a view to solve the Communist problem.

Sri R. Kamatchi of Periyakulam thinks that the Communists are committing *karakiri* by pursuing their policy of terrorism and sabotage, since the public hates them for such deeds.

Sri M. Subramanyam of Sembiam warns that unless and until the unemployment problem is solved and poverty eradicated, it is not possible to stop violent acts of sabotage by arresting and punishing a few Communists.

Sri M. Perumalswami of Tirupattur (North Arcot) wants Communists to be drowned in the Indian Ocean.

Sri V. Govindaraja of Champion Reef suggests that hardened Communists who cannot be reformed, should be exterminated.

Sri S. P. Palaniyappan of Ettayipur says that there should be enough reforms to end social inequalities.

The Secretary of the Kasturi Bai Charka Sangh at Keyapet writes that Communists should not be released from jails even though they tender apologies, as they again resort to acts of violence as soon as they are set free.

Sri M. Srinivasan, a cartman, wants capital punishment (of the first degree) to be meted out to the Communists.

Sri K. N. Natarajan of Chennamalai pleads for active co-operation between the public and the Government.

Sri S. P. S. Raj of Kilaramasingapuram recommends awards for informers who disclose to the police the whereabouts of Communists.

Sri N. B. Shanmugam of Perambur does not want Communists to be treated as political prisoners.

Sri G. Vadivelayudam of Mathurai exhorts the public to capture and hand over Communists to the Government.

Sri S. M. Ganapati of Tiruvuttirakosamangai advocates collective fines on villages where violent incidents take place.

Sri A. Ramamurthi of Mathurai observes that the Communists should not be treated as political prisoners. He further suggests organisations of Anti-Communist Volunteer Corps by District Congress Committees.

Sri R. Srinivasan of Aruppukottai suggests that the public should organise to capture the Communists and hand them over to the police.

Sri T. V. Satchidananda Pillai of Tanjore (Retired S.I.R. Driver) pleads for vigorous enforcement of Railway laws which forbid trespassing across railway lines, etc. He advocates transportation of life as punishment for the offenders.

Sri Sornamanickam of Sivakasi is of the opinion that Communism spreads on account of unemployment, lack of residential accommodation and partiality in the distribution of rations.

Sri P. Manickam of Sivaganga advocates the launching of an anti-Communist organisation representing all the public institutions.

Sri M. Velayudham of Coragam suggests that similar punishments like those prevalent during the British regime, should be meted out to the Communists at present.

Sri C. Appadurai of Vaniyambadi advocates capital punishments for Communists.

Sri S. Diraviyam of Avarakulam feels that poverty should be eradicated to wipe out Communism.

Sri R. Palani of Vallam thinks that if the Government stop allotting lands to political sufferers who derailed the trains under foreign rule, the Communists will not remove the rails.

Sri A. Arumugam of Attur advocates the nationalisation of all industries.



Reading with the hands

WORK WITHOUT
SIGHT"Braille"
typingHand-reeling
↓

Cane craft

The School for the Blind,
Poonamallee, teaches
crafts which provide
the blind with
employmentWeaving
↓

efficient cattle-sheds and the need for kindly treatment of animals. Artificial insemination section explains the production of test-tube calves. In the sheep and wool section, blankets made from Bellary and Nilgiri breeds of sheep are shown and the need for crossing the Bellary breed with the Bikaner breed explained. The Animal husbandry department also has on display three magnificent specimens of a Sindhi bull, Murrah buffalo bull and Ongole bull.

The Health Section

The Public Health Department has a small set of stalls installed in one corner in horse-shoe formation. The stalls are devoted to subjects like tuberculosis, mosquitoes, water supply with an elaborate model of the Madras Water Supply Scheme, Sanitary Engineering section with model drinking water-supply schemes for town and

village, the Town-Planning section of the City Improvement Trust, a B.C.G. Unit working under the auspices of WHO which tests members of the public for T.B. and also takes free X-rays, leprosy propaganda stall, indigenous medicine stall and herbarium samples from the College of Indian Medicine. The King Institute of Preventive Medicine demonstrates the detection of adulterants and poisons and the manufacture of vaccine lymph, antitoxin sera, and cholera vaccines. A blood transfusion unit invites voluntary donations from the public and also explains the need for blood banks in cases of emergencies like accidents.

Forest Wealth

The Forest Department's stall displays specimens of timber obtained from Madras forests as teak, rosewood, matchwood timber, mango and sandalwood and timber are listed as

specimens. A timber inlay map of Madras Presidency gives the occurrence of various woods in the Province.

Wealth of the Sea

The stall of the Fisheries Department is mainly meant for encouraging the rearing of marine and inland fishes for food purposes.

Khadi Stall

The only khadi stall in the Exhibition is run by the F.I.K.A. Development and the notable feature is that khadi is available for sale without exchange of yarn.

Palm Gur

A model jaggery manufacture outfit to demonstrate the making of palm gur jaggery, an important activity in the ameliorative programme of the Prohibition Campaign, also finds a permanent place in the Exhibition.

Education Of The Blind

One of the most appealing stalls in Vidyanagar at the All-India Khadi, Swadeshi and Industrial Exhibition, Madras, is the Defective Children's section. It is run by the Poonamallee School for the Blind, an institution for the visually handicapped. Here one may see sightless fingers skillfully plait rattan strips into trays, chairs, toys, cradles and even a miniature car.

A loom and a charka may be seen plying and blind girls weave bedsheets and shirtings with remarkable precision.

This training in a craft not only gives the unfortunate defectives a means of livelihood, but also confidence and character; it makes them realize that they are not helplessly dependent on those who have the gift of sight.

The students demonstrate how they read with the aid of books written in Braille. They learn to read through their fingers which act as eyes. The students use ordinary writing frames, the Braille typewriter and the Braille shorthand typewriter. They do their

arithmetic with octagonal boards and pegs.

It is believed that there are about 100,000 blind persons in the Province; over 1,500 have so far been admitted in schools. Two students have matriculated, and one has joined college. The Government of Madras are taking greater interest than before in the welfare of the blind. Recently a special school for the Blind was started at Cuddapah, and a similar institution is to be started at Salem in January 1950.

Social Education in Bombay

Inaugurating the first Bombay City Social Education Week at the Bharatiya Vidya Bhavan recently, Dr. Jivraj N. Mehta, Minister for Public Works, Government of Bombay, called upon all sections of the citizens of Bombay to extend every help to the City Social Education Committee in its fight against illiteracy and ignorance. Educating men and women in social

duty was a worthy cause and the people of Bombay had never hesitated to help a good cause, he observed.

Chittoor Municipality Reclassified

The Government of Madras have reclassified Chittoor Municipality from III grade to II grade, with effect from January 1, 1950.

(Continued from page 10)

The rice study Group of Trivandrum was presided over by the Indian representative. The member nations contribute on a pre-determined basis towards the upkeep of the Organization. The estimated expenditure of the F.A.O. is about 2.5 million dollars per annum. The U.S.A. contributes 25 per cent, and India 4.25 per cent."

Employment Exchanges

Every year thousands of young men and women complete their school or college careers and pass into an uncertain period of waiting for employment. The lucky ones amongst them obtain some kind of employment within a short time, but for many it is a long, dreary wait.

Until recently, they were all left mostly to shift for themselves in the matter of employment-finding. They had to depend upon newspaper advertisements, radio announcements and second or third-hand information to get to know of possible opportunities. Many of them did not get the employment suited to their abilities or agreeable to their tastes. This proved a double loss; not only were the candidates denied the jobs in which they would have proved their mettle, but the country did not get the services of suitable men for the type of work in which they could be of the greatest use to the community.

This problem of employment-finding brought into existence middle-men and agents who thrive on the misfortunes of the unemployed. In these circumstances, the need for a public employment service came to be keenly felt. Today, every modern nation has such an employment service run by its Government.

In our country, the National Employment Service, which was set up under the Ministry of Labour about four years ago, primarily with the object of facilitating the resettlement of demobilised services personnel and discharged war-workers, has since extended its scope to displaced persons and, eventually, to all classes of employment-seekers. It is still an infant organisation, but having proved its utility, it has been receiving increased co-operation from employers and employment-seekers. Up to the end of July 1949, it has placed in employment more than 700,000 persons.

Mechanism of the Organisation

The organisation consists of 54 Employment Exchanges and 55 District Employment Offices (the latter have been set up so far only in Madras, Bihar, East Punjab and Uttar Pradesh) and the services of these offices are entirely free to the public. The Employment Offices are manned

Thousands of women workers assemble at the Employment Office, Gunder, for registering their names for work in the various tobacco companies in the district.

by a staff specially trained for the purpose. They assess the abilities of the persons who seek their assistance in securing employment and fit them into the jobs where their qualifications and skills will have the fullest scope for free play and will be of advantage to the community.

The Employment Exchange follows a scientific system of work. It sorts out the vacancies notified to it by employers and classifies the employment seekers registered with it, according to their exact qualifications, degree of skill and previous experience. All particulars are noted on cards, and the cards are arranged in a manner that they could be picked out quickly whenever a candidate has to be matched against a vacancy.

When a vacancy is notified, the Exchange examines the cards of persons of the appropriate category on its register and matches the vacancies with the men most suitable for filling them. Thus it is able to submit to the employer for his final selection the right man for any job.

Voluntary Service

The Employment Exchanges offer voluntary service. They are guided only by the merits and qualifications of the persons registered with them. They do not interfere with the right of the employers to select the men they like. They only submit against each vacancy a panel of applicants most suitable for the vacancy. They leave the final selection to the employers and the settlement of terms and working conditions to the employment-seekers.

The services of the Employment Exchange Organisation are available to women as well as men. For the benefit particularly of persons who have high academic qualifications, possess experience of technical work or have the ability for administrative and supervisory jobs, there has been set up at every Exchange an Appointments Branch which deals with applicants possessing these special qualifications. When a vacancy requiring a candidate with these special qualifications or experience is notified, all the particulars regarding the vacancy are carefully noted and indexed. Similarly, when persons possessing high-grade qualifications seek the assistance of the Employment Exchange, all particulars about them are recorded in the Appointments Branch which keeps a close watch on vacancies which can be filled with men of the Appointments Branch standard.

As the Employment Service is a countrywide organisation, its machinery is designed to secure employment for people in any part of the country and to promote migration of labour from one place to another. If an Exchange with which, say, a highly qualified man has registered himself, covers an area where there are no employment opportunities for him, he is considered for a suitable job outside his Exchange area.

Recruitment to Government Service

The Employment Service is now being utilised increasingly for recruitment to Government offices. According to orders issued by the Central and State Governments, most vacancies in Class IV services in Government offices

Training Scheme for Adult Civilians

The Directorate-General of Resettlement and Employment, Ministry of Labour, Government of India, has announced a Technical and Vocational Training Scheme for Adult Civilians.

Under this scheme there will be about 60 Training Centres scattered throughout the Indian Republic.

The objects of the scheme are—

- (i) to ensure a steady supply of skilled workers for the country's industries;
- (ii) to raise the quality and quantity of production by the systematic training of the worker; and
- (iii) to reduce unemployment amongst educated young men by equipping them for suitable industrial employment.

The scheme provides for two types of courses—

- (a) A two-year course of technical training in Engineering and building trades, the last six months of which will be spent either at a Training Centre or at an industrial undertaking, as may be convenient, on production professional work.
- (b) A twelve-month course of vocational training in cottage and small-scale industries.

For further information and for copies of application forms and prospectus apply to the Regional Director of Resettlement and Employment, Madras-6.

are filled through the Employment Exchange Organisation. Most of the clerical staff in Central Government departments, both temporary and permanent, are also recruited through the Exchanges. Temporary vacancies of clerks in some of the State Governments are filled only through the Exchanges, though permanent vacancies of certain categories are filled only through the Public Service Commission. In the latter case, however, vacancies are notified also to the Exchanges so that candidates registered with the Exchanges may receive equal consideration with others.

As regards vacancies to be filled through the Union Public Service Commission, the Exchanges are provided with full information regarding these vacancies and can, therefore, give information to candidates and also supply them with application forms. For vacancies in Railway administrations, the Exchanges submit suitable persons and also distribute to applicants Joint Service Commission application forms. A large number of private employers (firms and industrial concerns) are co-operating with the Exchanges and are recruiting their personnel through them. Therefore, those who seek employment in private concerns can ascertain from the Exchange the opportunities available to them and offer themselves through the Exchange for consideration by the employers.



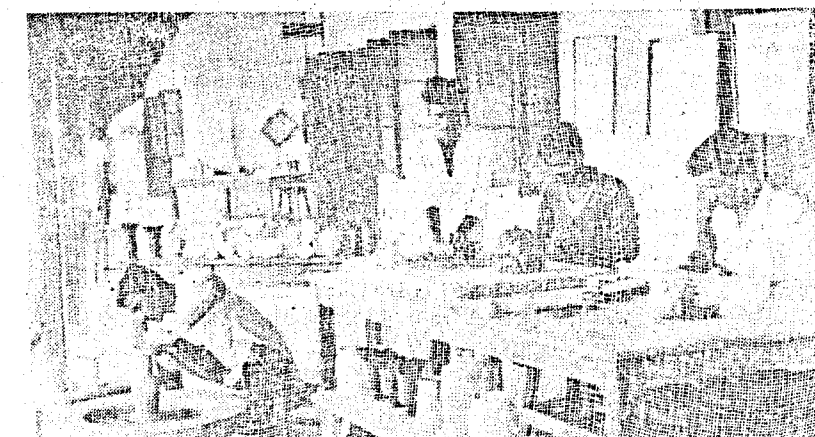
Technical training at the Anantapur Centre

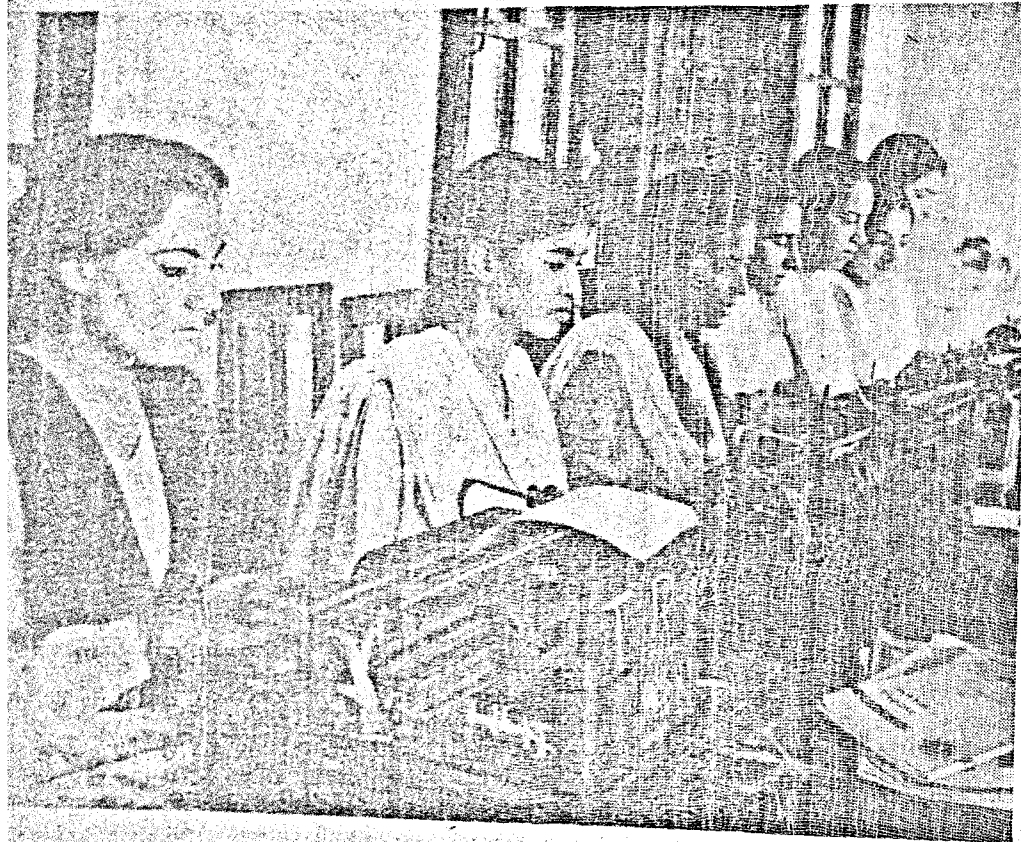
Scientific System Adopted

The scientific system of work followed by the Exchanges and the relief they ensure for employment-seekers from the ordeal of going from place to place and from employer to employer in search of employment have made the organisation an invaluable feature of staff recruitment in advanced countries. India's Employment Service is thus the modern agency for staff recruitment. It is the service that ensures the employment of the right man in the job.

Students passing out of schools and colleges will find in the Exchange Organisation a friend, philosopher and guide. They may register themselves with the nearest Exchange for employment-assistance and information about openings likely to be available. The Employment Service in India is still in an infant stage, and is not yet fully equipped to undertake all those duties which its counterparts in other countries perform. But the National Employment Service in India is now in a position to offer a career advice service as well and our young men may be well advised to approach it for guidance and assistance. Even with its present limitations, the Employment Service in India is in the best position to give such help and advice as our students on the threshold of their career may stand in need of.

Clay and Ceramic work being taught at the Kabinada Centre





A typing class in progress at the Women's Training Centre in Delhi

100 Vocations Taught To 38,000 Displaced Persons In 280 Centres

In the dim days before Babar became the first Moghul Emperor of India, Arab travellers passing through the Capital usually stayed at a place called Arab-ki-Sarai (Caravansarai for Arabs). Through the ages the place was reduced to shambles, but its name has stuck. The site where travelling Arabs once enjoyed the proverbial Indian hospitality, sprang to new life when the Government of India, hard-pressed for suitable space for locating a centre for training displaced persons in useful crafts and vocations, decided in favour of this spot.

Bulldozers hacked through debris collected through past ages and levelled the undulating ground, while battalions of workers laboured overtime to put up numerous sheds where trainees could receive technical instruction. In a matter of a few days the place was once again habitable.

On August 10, 1948, the Arab-ki-Sarai Vocational Training Centre came into existence. Declaring it open, Maulana Abul Kalam Azad, India's Education Minister, complimented the workers on having created what he called "a living monument erected upon dead ruins" in such a short time. The Centre was recently named Arab-ki-Sarai Training-cum-Work Centre following the introduction of a new scheme.

Unique Institution

The Arab-ki-Sarai Centre is a unique institution in many ways, different from others of its kind in the country.

It is one of the largest of such centres for displaced persons in the country, with a capacity of 480 seats. Japanese machinery for cottage and small-scale industries specially imported for displaced persons is installed at this Centre. The trainees are a cross-section of the displaced population from many parts of the Union, recruited for specialised training in the operation of the Japanese machinery. Further large orders for this machinery have been placed with Japan. When received, it will be given to displaced persons on payment. In deserving cases, Government will even advance loans to enable applicants to purchase the machinery.

Arab-ki-Sarai has two types of trainees. Firstly, those who have no capital of their own and would eventually have to seek employment. Secondly, those who have capital and can start their own industries after receiving training. These industrialists, it is expected, will absorb trainees belonging to the first category thus accomplishing their permanent rehabilitation.

There are today 112 work or training-cum-work centres throughout the country, including the one at Arab-ki-Sarai. Of these, the Government of India are directly supervising seven. All "work" centres are designed to be self-supporting after a brief initial period, during which Government provides a small "revolving" capital for

the purchase of raw materials. Trainees receive stipends during the first few weeks after joining, after which they must produce. They are paid for the articles they manufacture, these being marketed by the centres under a co-operative scheme. During training, the emphasis is on intensive, short-duration courses, so that actual production may begin as early as possible.

Training for Industry

These centres represent only one aspect of training given to displaced persons. There are also ordinary technical training centres run by the Directorate General of Resettlement and Employment. The latter also runs what are called "vocational" training centres and "apprenticeship" training centres. There are 167 centres belonging to these three categories.

Altogether, over 18,200 displaced trainees had completed training in all these centres (run by the Centre, States and Directorate-General of Resettlement and Employment) up to January 31, 1950, while another 19,600 or so were under training on that date. Training is given in over 100 different crafts and vocations. The idea is to fit trainees for absorption in industry and business.

Those of the trainees who wish to set up small-scale business or industries on their own can apply for loans up to Rs. 5,000 under Government's Petty Loans Scheme.

Job for 136,000 Displaced

Placing displaced persons in jobs in all parts of the Indian Union has been another vital aspect of rehabilitation. Up to January 31, 1950, about 129,000 persons involving 447,000 dependents had been placed in jobs by the Directorate of Resettlement and Employment and the Special Employment Bureau specially set up for displaced persons after Partition. Another 6,800 persons who were formerly in Government service in West Pakistan (involving 24,000 dependents) secured employment in Government of India offices through the Transfer Bureau set up by the Government of India, thus bringing the total number of displaced persons who were provided with jobs to 135,800 and the total number of dependents to 471,000.

Rail Concessions

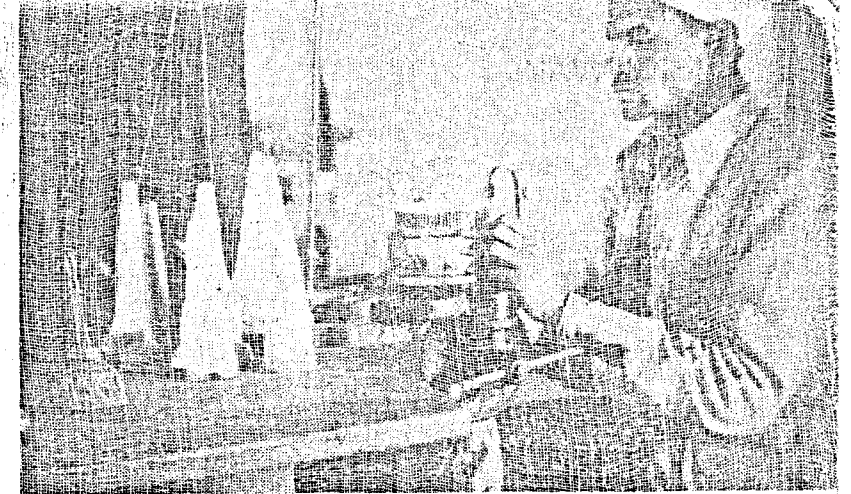
The Railway Board have decided to extend rail travel concessions. With effect from 1st April 1950, the following concessions are to be revived, extended or introduced:

- (i) Concessions to parties of students of recognised schools and colleges and to members of the National Cadet Corps for specified journeys;
- (ii) Concessions to teams of all games, including Indian games, and athletic sports, when travelling to participate in tournaments held or recognised by State Educational Boards or Universities or State and All-India Sports Associations including the Olympic Association.

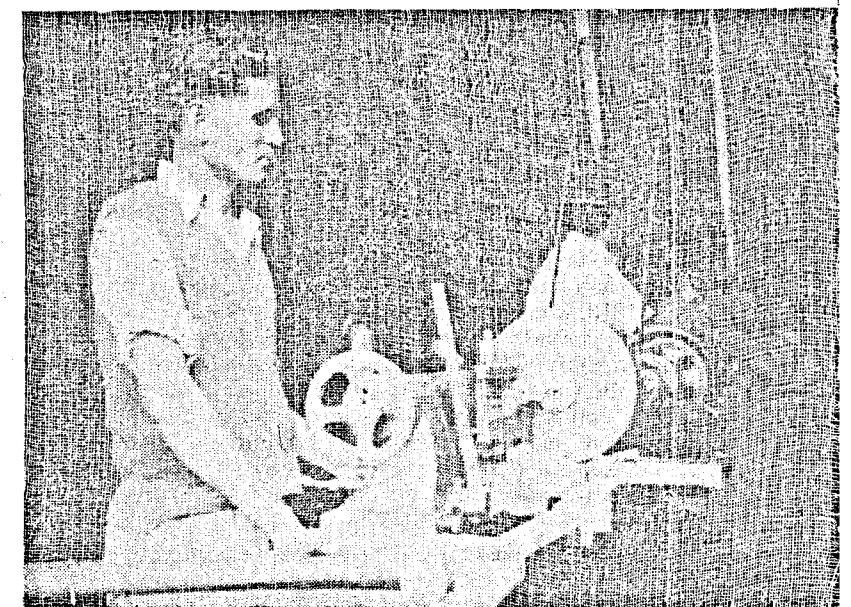
(iii) Concessions to delegates attending All-India Conferences of a social or educational nature certified by the Government of India;

(iv) Concessions to delegates attending annual sessions of All-India bodies of certain educational, cultural and social organisations.

Concessions for the blind have already been introduced.



A typical trainee learning knitting on a hand-machine at one of the Vocational Training Centres



A Turner trainee turning on a lathe

Trainees learning toy making at Almore



Road Building In Chittoor District

Chittoor District, with its headquarters at Chittoor, has an area of 5,901 square miles and a population of 1,632,395 according to the 1941 census. The western half of the district forming a part of the Mysore plateau has a salubrious climate akin to that of Bangalore, while the eastern half which is a plain country resembles the Ceded Districts. At the commencement of the last century no communications existed in this district except the "Mountain Passes." Such other communications as existed were merely country tracks.

From the earliest records available it is found that a number of lines of communications were in existence even in 1811 in the area now comprising Chittoor District and it is significant that all of them, except one, have stretches of "ghat" roads on them. These roads, however, were neither metalled nor bridged at that time, but were made up of natural soil except in ghat portions. The total length of even such a type of communications was only 276 miles.

Early Attempts in Road Building

It would appear that the mountain passes were originally opened for the passage of troops and artillery. Subsequently, rough roads were formed connecting the military arsenals and cantonments but no roads for other than military purposes were constructed until the year 1813, when the necessity for the construction of roads for commercial purposes first engaged the attention of the Government. There was no separate executive establishment for the construction or maintenance of roads and it was only the energy of some individual district collectors which secured results within the limits of their charge. Some Collectors tried to persuade villagers to maintain the roads within their village limits but that was not held legally correct.

Then during the village lease period renters were required to execute the necessary repairs to all communications within their villages, but the obligation was generally neglected and could not be easily enforced. It was then proposed to employ convict labour but this was found obviously impossible except in the vicinity of jails. The

All work on a conchalt surfacing project



famous "Round Roads" of Chittoor, nearly 15 miles in length, were formed by convict labour. These roads are the favourite resort of the residents of Chittoor for their evening walks and drives even now. About the year 1823 an attempt was made to construct roads by the agency of the "Corps of Pioneers." This measure, however, failed owing to lack of professional knowledge on the part of the officers of the corps which was then entirely officered by regiments of the line. After these abortive attempts, the Government in 1831 abandoned the idea of any considerable improvement and development of roads as a task of too great a magnitude.

Trunk Roads and Public Works

But fortunately, the Government soon afterwards reversed the policy and from 1837 to 1844 some important lines of roads were opened or improved. In the year 1845, the Government took a definite step forward and formed a separate department called the "Trunk Road Department" and transferred to it the financial control from the Revenue Board in which it was vested till then. From 1845 to 1858 the main lines of communications under the Trunk Road Department and district boards under the Collectors made considerable progress.

In 1858, another important change was effected by the abolition of the Trunk Road Department and the starting of the "Public Works Department". The Public Works Department was placed in sole charge of road works until the formation of the Local Fund Boards in 1871. During this period several roads were formed as measures of famine relief, especially in Madanapalle and Vayalpad Taluks which then formed part of Cuddapah District. Even after the constitution of the Local Fund Boards, the Public Works Department continued to be the executive agency for all roads till 1880 when Local Funds began to employ their own Engineering establishments.

Local Boards Assume Control

During recent years the Local Boards played an important part in the development of communications in this district; they formed on an average 10 miles of new road every year during the last 70 years of their existence. In the year 1925-26 the District Board and 70 taluk boards made a combined effort by pooling their resources into a common fund called the "Village Road Fund" and year after year they formed a large number of village roads. In the very first year of starting the "village roads fund" 45 village roads running to a total length of 52 miles were formed, which is a record for the district.

The progress was mainly due to a succession of enthusiastic Presidents of District Boards who were ably assisted by their Engineering staff. After the abolition of the taluk boards in 1934 District Boards were charged with the entire responsibility of forming village communications and since then 40 miles of roads were formed under the Road Development Fund and 59 miles were either formed or improved under the five-year scheme of improving village communications.

postwar road development programme at a rough estimated cost of Rs. 4.65 lakhs.

	LAKHS. RS.
1 Constructing a bridge at mile 49/6 of Chittoor-Kurnool road across Bahuda River.	1.47
2 Constructing a bridge at mile 53/4 of Chittoor-Kurnool road on Satyavati River.	0.77
3 Constructing a bridge at mile 20/6 of Chittoor-Kurnool Road.	0.30
4 Constructing a bridge at mile 24/1 of Chittoor-Kurnool Road.	0.36
5 Constructing a bridge at mile 14/1 of Ponnai-Tiruvallam Road.	1.75
	4.65

The estimates for items 2, 3 and 4 supra have been sanctioned and the others are under investigation.

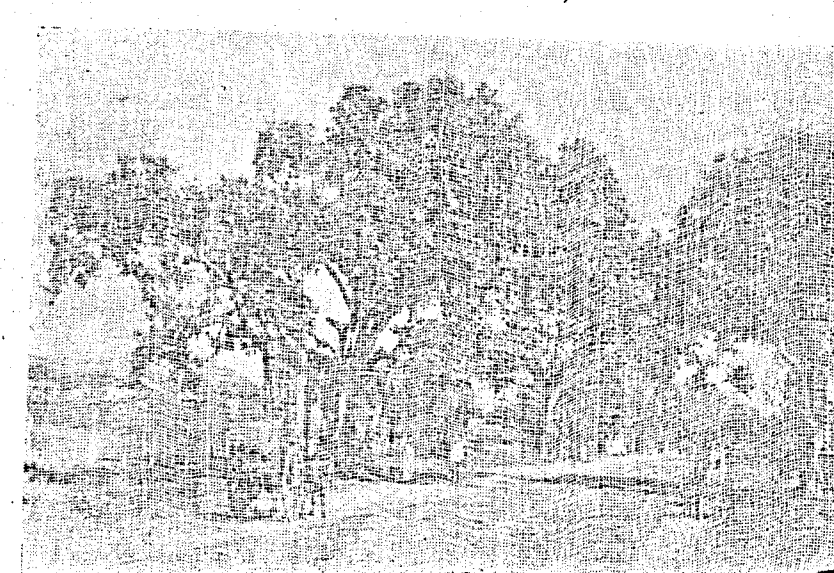
(b) *Improvement to existing roads.*—It is proposed to Cement concrete the first four furlongs of the Chittoor-Kurnool Road within Chittoor Town limits as this stretch carries a traffic of over 1,000 tons per day.

The Municipal Council of Chittoor has sanctioned one-fourth contribution towards the cost of the work which is estimated at Rs. 65,800. The work has just been started and is expected to be completed during the current year.

It is also proposed to provide bituminous surface in built-up areas on all main roads in the district, irrespective of the intensity of traffic, at an estimated cost of Rs. 5.24 lakhs since this is an improvement long overdue, to prevent the dust nuisance which has become a menace to public health. In this connexion it may be of interest to note that the main highway through Madanapalle Town and the roads between Madanapalle Town and railway station are proposed for similar treatment in view of their proximity to the sanatorium at Arogyavaram.

(c) *Postwar Road Development Programme for District Board Roads.*—Postwar road development works on district board roads are executed by district boards. Government have been sanctioning considerable amounts to the district boards for the improvement and formation of new village communications under grants-in-aid scheme. Up to the end of 1948-49 the district board carried out

A stretch of the Great Southern Trunk Road improved with conchalt surfacing (concrete centre and asphalt shoulders)



Road between Chidambaram and Bhuvanagiri—Before construction

In pursuance of the decisions of the Government of India, a scheme of road development was formulated by the Provincial Government for the Madras Presidency. This scheme was prepared in 1935 by A. Vipani, Special Engineer for Road Development, and contemplated formation of inter-district roads, new roads, improvements to existing roads, bridge schemes, railway feeder roads and improved surfacing to roads.

Postwar Development Scheme

The Postwar Road Development Scheme for Chittoor district envisages the construction of 630 miles of new roads in the district besides the improvement of the existing lines of communication at a total estimated cost of Rs. 2.5 crores. Out of this comprehensive programme, which is to be spread over a period of 25 years, it is proposed to spend Rs. 47 lakhs during the first five years.

(a) *Bridges and culverts.*—The following major bridge projects which are long felt needs of the district both for passenger traffic and movement of essential food commodities are included in the road development fund and

works under this category costing over two lakhs of rupees and during the current year 1949-50 there is a programme for the formation of 39 miles of new village roads, metalling of some important bus routes and construction of bridges and causeways at a total estimated cost of five lakhs of rupees.

Comparison and Classification

The Postwar Road Development Programme in respect of Chittoor District is given in Annexure I.

The lengths of roads in Chittoor District as on 1st April 1949 and how they compare with the Presidency average is given below :

Length of roads and Presidency averages

	Miles	Length per square mile of area	Presidency average	Area served per mile of road	Presidency average	Population per mile of road	Presidency average
Total length of roads:							
Motorable roads	1,415						
Other roads	157						
Total	1,602	0.28	0.29	3.71	3.44	1,019	1,346
Railways	238	0.04	0.05	24.79	30.92	6,859	19,169

The classification of these roads as per postwar road development schemes is shown below :—

	Miles	Furlongs
National Highways	53	3
Provincial Highways	121	1
Major District Roads	495	2
Other District Roads	524	3
Village Roads	408	2
	1,602	3

It is generally held that in the matter of roads this district is adequately served, the length of roads per square mile being 0.28 miles. The general condition of roads in this district may be described as very fair.

Under partial construction



The length of roads in this district at different periods during the last one and half centuries shows the progress in the development of communications in the district ; 1811, 276 miles ; 1880, 838 miles ; 1911, 1,019 miles ; 1925, 1,137 miles ; 1946, 1,559 miles and 1949, 1,602 miles.

It is no mean achievement that starting almost from scratch, especially in the matter of metalled roads, the length of communications was increased by nearly six times during the last century and a half and more than doubled during the last one hundred years.

Maintenance costs, 1947-48 and 1948-49

The following statement gives an idea of the maintenance expenditure on Government and District Board roads in the district during the last two years :

Years	Total length of roads metalled	Expenditure maintenance	Average expenditure per mile on maintenance
Government Roads			
	M. F.	RS.	RS.
1947-48	734 5	8,57,254	1,167
1948-49	734 5	13,39,435	1,822
District Board Roads			
	M. F.	RS.	RS.
1947-48	853 0	3,14,954	253
1948-49	867 6	3,51,925	405

It will be seen that both the Government and the District Board are spending increasing amounts on the maintenance of roads to meet the requirements of present day traffic.

Rural Communications

The following statement which shows the distribution of population amongst towns and villages, reveals some interesting and instructive facts :

Population in each village or towns	Number of villages or towns	Total population in these villages or towns	Number served by roads	Percentage of total population	Provision in the Post-war Road Development Programme
					Length in miles
Less than 500	1,585	3,76,319	..	23.0	..
From 500 to 1,000	507	3,34,752	106	20.5	351 251
From 1,001 to 2,000	319	3,83,131	119	23.8	207 190
From 2,001 to 5,000	137	3,63,414	79	22.4	57 189
5,001 and above (Towns)	19	1,67,779	19	10.3	..
Total	2,567	16,32,395	303	109.0	615 630

In the first place, it shows that villages with a population of less than 500, mostly hamlets lying around main villages, constitute more than half the total number of the villages in the district, and that 23 per cent of the total population live in such hamlets. These villages do not come under the purview of the Postwar Road Development Scheme, for the provision of road communications. This is not really a serious omission as it might appear at first sight, since the villages are mostly hamlets situated

within easy reach of the main villages and generally connected to them by some kind of hard beaten track. Access roads are proposed for all the main villages (those with a population of 500 and more) and hence these hamlets will be within easy reach of road communications after the Postwar Road Development plan is executed.

Villages with a population between 500 and 1,000 form one-fifth of the total number of villages and exactly one-fifth of the total population live in these villages. Of these villages one-fifth are served by the roads at present and it is proposed to form 251 miles of new roads connecting another 351 villages to the road system.

Of villages with a population between 1,001 to 2,000 a third of the villages are already served by the roads and the remaining two hundred and odd villages are proposed to be connected to main roads by the formation of about 200 miles of new roads.

Out of 137 villages with a population between 2,000 and 5,000, 79 are already linked to existing roads and all the remaining villages will be provided with the roads by the formation of 189 miles of new roads. Only 10 per cent of the total population live in towns with a population of more than 5,000 and all such towns find a place on the road map of the district.

The Postwar Road Development Scheme contemplates the formation of 630 miles of new roads as against the existing 614 miles in order to connect almost all the villages with a population of 500 and more to the existing road system. This target to be achieved in a period of less than 16 years is more than the aggregate length of village communications formed during the past one hundred and fifty years.

Organisation

On the formation of the Highways Department, out of a total length of 1,537 miles the Government took over 734 miles of roads in Chittoor District in their control and the balance of 853 miles of road were left with the district boards.

The divisional unit of the Highways Department consists of the Divisional Engineer (Highways) with headquarters at Chittoor with three Assistant Engineers (Highways) stationed at Chittoor, Madanapalle and Tirupati and twelve supervisors (Highways) located at Chittoor (East and West Piler, Kuppam, Madanapalle, Punganur, Voyalpad, Kalikiri, Tirupati, Puttur, Tiruttani and Kalahasti. The average territorial jurisdiction of an Assistant Engineer covers an area of 1967 square miles with 533 miles of roads. Each supervisor has roughly jurisdiction over a revenue taluk and is in charge of 133 miles of roads on an average. In the whole division there is an annual outlay of about 15 lakhs of rupees on Government roads and seven lakhs of rupees on district board roads, making a total of 22 lakhs of rupees.

Maintenance of Roads

(a) *Traffic*.—Traffic in this district is comparatively light except in a few stretches. The period for peak traffic occurs in the month of January, when most of the agricultural produce is transported to the marketing centres.

(b) *Road materials*.—Road materials, though not of the best quality, are available in plenty all over the district. The materials generally available is a variety of genesis which is not hard but wears out smoothly. A variety of close grained tough metal occurs in dykes, but it is very hard for hand breaking. But it is not quite suitable for water-bound macadam roads. There is also a cheaper variety of trap which is also being used for water-bound macadam roads. There is scope for its use on a larger scale. The average lead for road metal in this district is about three miles and for gravel four miles.

(c) *Labour*.—There is generally no dearth of labour for road works in this district. Professional road gangs are resident mostly in Palmaner Taluk, but they work almost throughout the district.

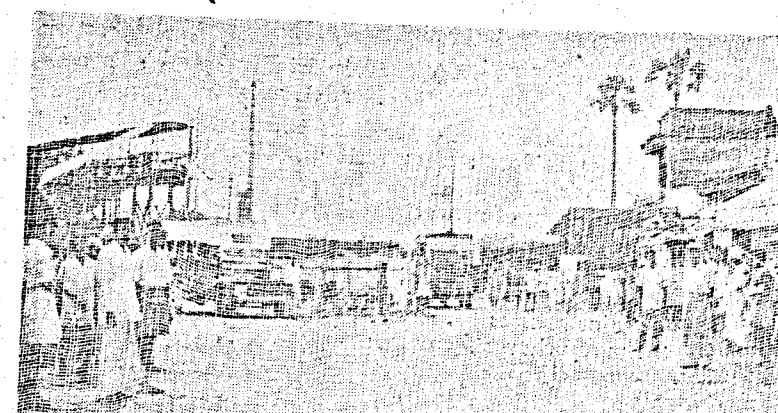
(d) *Working seasons*.—The most suitable period for quarrying are the months of January to June. The season most favourable for road consolidation work is the rainy season extending from July to November. Earthwork can be done during the same period and even up to the end of January in some localities.

(e) *Departmental gang cooly system*.—The system of executing petty miscellaneous works by departmental gang coolies is well organised and is working satisfactorily. On Government roads there are about 500 gang coolies for a total length of 734 miles (i.e.), roughly two coolies for a stretch of three miles. Their strength is being increased by the recruitment of ex-toddy tappers as gang coolies. The same system obtains in the case of the district board roads also with slight modifications. On the whole the system is working very well.

(f) *Avenues*.—The main development of communications originally consisted mostly of improving the then existing country tracks. But it is interesting to note that road avenues received even prior attention, for we find fine lines of communications even before they were metalled. The development of avenues seems also to have gone apace with that of communications, whereas there existed only about 4,000 trees towards the close of the last century (1892); in the area comprising the present Chittoor division there are now about 84,500 avenue trees.

During the last two years a special drive has been launched to grow more avenue trees as a result of which eight miles of new avenues and 15,000 additional plants

Finished Cement concrete surfacing near Tirucallur Railway Station



have been added. In the current year the programme is to be further expanded and it is proposed to add 33 miles of avenues and 8,000 plants on Government roads and ten miles of avenues on District Board roads. There are ten nurseries in the district to supply the required seedlings.

Travellers Bungalows

There are 15 Travellers Bungalows in the District maintained by the District Board at the following places:

Kalahasti, Yerpodu, Chandragiri, Puttur, Tirutani, Damalacheruvu, Kallur, Piler, Paradarami, Palmaner, Venkatagirikota, Kuppam, Madanapalle, Punganur and Kalikiri.

Besides these, there are four travellers bungalows maintained by the Public Works Department, 14 by the Forest Department and one by Chittoor Municipality. The Travellers Bungalow at Maddayyagaripalli (Madanapalle taluk) has been recently transferred to the Highways Department by the Public Works Department.

The Bungalows at Kuppam, Palmaner and Chandragiri are not commodious and it will be necessary to construct new and modern buildings at these places in due course. The District Board has sanctioned the construction of a Travellers Bungalow at Nagari. There is a great need for Travellers Bungalows at Renigunta, Pakala and Pallipet. It is hoped that the District Board would supply this need in the near future.

ANNEXURE I.

Recast five year programme of Post-war Road Development

(1947-52)—Chittoor District

Group I Roads (Provincial Highways and Major District Heads)

Serial number and name of work	Rupces in lakhs
1. Current concrete surfacing	0.65
2. Black top surfacing	5.24
3. New metalling	1.00
4. Minor bridges	7.00
5. Widening	1.50
6. War arrear renewals	1.64
7. Formation of new roads	4.00
8. Major bridges	21.03

Group II Roads (other District Roads and Village Roads)

1. New metalling of other district roads	3.50
2. Minor bridges and culverts on other district roads	4.00
3. Formation of new other district roads	3.20
4. New metalling of village roads	2.68
5. Minor bridges and culverts of village roads	1.00
6. Formation of new village roads	10.50
7. Major bridges	1.00
8. Survey charge for new formation	0.52
	26.40

Everyday Recipes

RAWA DOSA WITH ATTA AND SWEET POTATO FLOUR

Ingredients.—Curd 1 pao; *atta* or *rawa* 2 chattaks; sweet potato (flour) $\frac{1}{2}$ chattak; onions 2 (medium size); green chillies 4; ginger a small piece; salt to taste; a pinch of soda-bicarb; ghee to fry.

Method.—Clean *atta* and sweet potato flour; chop onions, chillies and ginger. Mix all the ingredients with curd and make it to a pouring consistency by adding a little water and leave it aside for half an hour to soak. Heat a little ghee in a frying pan, put some of the dosa batter, flatten it and cover the pan for two to three minutes. Then turn the dosa to the other side and fry to light brown colour. Similarly, prepare dosas with the rest of the batter and serve hot with chutney, for breakfast or tea.

CHANA DAL AND SWEET POTATO FLOUR BADAS

Ingredients.—Chana dal $3\frac{1}{2}$ chattaks; sweet potato flour $1\frac{1}{2}$ chattaks; onions 2 (medium size); green chillies 4; *zeera* for flour; salt to taste; ghee to fry.

Method.—Pick and soak dal overnight or for five to six hours. Wash it and grind, adding *zeera*, green chillies and salt. Cut onion into small pieces and mix along with sweet potato flour with the mixture. Divide the mixture into small flat rounds, and fry in deep fat till brown. Serve hot for tea.

SWEET POTATO HALVA

Ingredients.—Fresh sweet potatoes 1 pao; sugar $\frac{1}{2}$ pao; nuts 1 chattak; fresh coconut $\frac{1}{2}$; ghee $\frac{1}{2}$ chattak; a pinch of salt, *elaichi* (small) 4.

Method.—Wash and boil the sweet potatoes; peel and mash them very fine. Chop the nuts and grate the coconut. Make sugar syrup. For preparing this add one teaspoonful of milk when the sugar is melted; as it boils, the dirt goes to the sides of the vessel, and can be removed completely, when a very clean sugar syrup is obtained. When it is ready to grain add the nuts, grated coconut and the mashed sweet potato and cook for five minutes, stirring it well. Then add ghee and cook it for another five minutes. Remove from fire and add *elaichi* powder; mix well and let it set in a greased plate. Cut it into small squares. This can be served for tea or as a sweet dish after lunch.

DRY BHUJIA WITH SWEET POTATO AND COCONUT

Ingredients.—Sweet potato shreds $\frac{1}{2}$ cup; grated fresh coconut $\frac{1}{2}$; green chillies 4; turmeric powder, salt to taste; lemon. For *bhagar*, *Urd dal* 1 tola; mustard, *zeera*, garlic 3 flakes; red chillies 2; curry leaves; ghee.

Method.—Wash the sweet potato shreds a couple of times and boil them with double the quantity of water. When they are nearly cooked, add the grated coconut, along with crushed green chillies, turmeric powder and salt, mix well and let it cook for five minutes. Remove from fire and give *bhagar* with the ingredients mentioned under that head. Squeeze the juice of a lemon. Serve hot with chapatis.

(One chattak is equal to five tolas)

Motor Transport Societies for Ex-Servicemen

The Government of Madras have been taking various measures for the resettlement of ex-servicemen in civil life and as a part of this programme of resettlement, three types of co-operative societies for ex-servicemen, viz., co-operative land colonisation societies, co-operative workshops and co-operative motor transport societies have been formed in this State. Thirteen co-operative motor transport societies in the districts of Malabar, Tirunelveli, North Arcot, South Arcot, Tanjore, Tiruchirappalli, Visakhapatnam, Guntur, Mathurai, Salem, Coimbatore, Madras and Krishna were formed. These societies are having about 730 members and 289 lorries.

The Post-war Service Reconstruction Fund Committee of which His Excellency the Governor of Madras is the chairman, sanctioned an interest-free loan of Rs. 20 lakhs for capital expenditure. A sum of Rs. 17.43 lakhs was drawn to meet the cost of lorries. The societies already repaid Rs. 7 lakhs towards the loan. They have made provision for the repayment of the loan by the creation of a Local Repayment Sinking Fund. For purchase of the new fleet of lorries when the present lorries will become useless, they have provided for the creation of a fleet replacement fund.

The Collectors of the Districts are the Presidents of the Societies. The societies have appointed Co-operative Sub-Registrars as Secretaries and ex-servicemen of the rank of K.C.O.s. or V.C.O.s. are Managers. All these societies have been able to employ over 680 ex-servicemen as drivers, cleaners, foremen, etc. They render satisfactory service to agriculture, trade and industry. Their lorries are employed for the transport of foodgrains, sugarcane, road materials, coal, textiles, building materials like bricks, sand, cement, etc. Being co-operative organisations, ex-servicemen-members themselves being employers and employees alike, there is no employer-employee conflict.

Business Conference

Many of the societies have completed two years of their working. In the course of their working they faced many problems. A business conference of the Secretaries of these societies was recently convened, and it was inaugurated by Sri B. Gopala Reddi, Minister for Finance and Transport. The Regional Director of Resettlement and Employment, the Provincial Motor Transport Commissioner and Deputy Transport Commissioners were present. The Registrar of Co-operative Societies, Sri J. C. Ryan, welcomed the Minister for Finance and explained the origin of the societies, their development and present position.

Sri B. Gopala Reddi said that he was glad to find that the societies were working satisfactorily and were financially sound. He promised to consider sympathetically the requests of the societies for an enhanced quota of petrol and permission to undertake passenger transport. The Joint Registrar (Resettlement) appealed to the Government and the Provincial Rationing Officer to permit the societies to pool their petrol quotas and to authorise the Registrar to distribute the petrol to different societies according to their changing needs and business.

The Conference lasted for four days, and the following are some of the important subjects which were discussed by



Sri B. Gopala Reddi, Minister for Finance and Transport, addressing a Conference convened by the Madras Co-operative Motor Transport Society

the delegates; Situation arising from the cut in the supply of petrol; taking up alternative modes of transport; undertaking passenger transport; opening of workshops; sub-dealership for sale of spare parts; and applicability of the Factories Act, Minimum Wages Act, etc.

Regional Transport Officers

Government have decided to combine the duties of the Regional Transport Officer and the Area Rationing Officer at Cuddapah and to revise their jurisdictions so that the four districts of Anantapur, Bellary, Cuddapah and Kurnool now under their control for purposes of transport administration and petrol rationing respectively will be divided into two regions, each in charge of an Regional Transport Officer who will be responsible for administration of both petrol rationing and motor transport work. The headquarters of these two regions will be at Anantapur and Cuddapah. The Regional Transport Officer, Anantapur, will have jurisdiction over the districts of Anantapur and Bellary and the Regional Transport Officer, Cuddapah, over the districts of Cuddapah and Kurnool. This new set-up will take effect from 1st April 1950.

The two Regional Transport Officers will be the Secretaries of the Regional Transport Authorities within their jurisdiction. They will also be the Area Rationing Authorities for the issue of petrol for buses, lorries, taxis, local bodies and Government vehicles, school buses and ambulances, trade certificates, motor boats and supplementary rations for motor cars and motor cycles in the districts within their jurisdiction. Basic rations for motor cars and motor cycles in these districts will continue to be issued as hitherto by the licensing authorities concerned.

The Young Offenders

By Sri M. V. S. N. AVADHANI, B.A., B.ED., Headmaster, Government Junior Certified School, Bellary.

The Young Offender is a problem to every civilised nation and every nation has been making its own efforts to solve it. I think most of the people even in India are not yet fully aware of the fact that tremendous work is now being turned out in this direction in Madras State. In our State the houses of detention for the Young Offenders are named "Certified Schools". There are four such institutions situated each at Chingleput, Ranipet, Tanjore and Bellary respectively. Till very recently they were under the Jail Department only. The Madras Government have taken a progressive step in separating and constituting them into a department—"the Department of Certified Schools" under the Chief Inspector of Certified Schools.

A new experiment of character formation in the young offenders and destitutes that are the inmates of these schools is being carried out with considerable success. These schools are as a matter of fact little colonies set in the outskirts of towns. The Headmaster and the Character Training staff reside in the colony itself. Teachers treat the pupils here with brotherly affection. The pupils develop very fine sentiments on account of such treatment.

Group Formation : Individual Attention

The entire strength of the pupils is usually divided into six groups. Each group is called a "house", given a name and kept under the charge of a 'House Master' or 'House Mistress' who will be their guardian. The House-Masters and House-Mistresses are highly sympathetic and patient in their dealings with their boys. They study the children's behaviour carefully and maintain individual character records where their progress is noted. Special cases which require individual study and treatment are taken up by the Headmaster. There is an educational section and also a workshop in the school. There is a reading-room too, where useful journals are kept for the boys, and a library where children's literature is available.

Vocational Training also is imparted to these pupils. They are trained in crafts like Carpentry, Weaving, Smithy, Metal Work, Tailoring Band, Laundry, Book-Binding and Gardening. Pupils are given intensive coaching in these crafts nowadays in order to enable them to live an honest and decent life after their release from these schools. Besides this, talents that are latent in the children are developed and the pupils are given full scope and freedom to have complete self-expression by means of working out productive hobbies like toy-making, fret-work, dancing, music and histrionics.

Parole System Successful

The Certified Schools at Chingleput and Tanjore own extensive fields and gardens which are maintained and cultivated by the pupils themselves. These pupils are in every respect treated as if they are normal children. They are allowed complete freedom but at the same time made aware of the limits of individual liberty. In certain schools pupils are frequently sent on parole in hundreds

to the town to attend cinemas. Pupils in every certified school are now and then sent to their parents on parole and it is very interesting to note that so far there is not even a single instance where the pupils have abused these privileges.

Law Class and School Bank

Dr. J. F. Thomson, formerly Adviser to the Government of Madras in Child Psychology, introduced in these schools the system of "Law Class" which makes every boy law-conscious. There is a "School Bank" and also a "School Shop" run by the pupils themselves in every institution. The pupils are given pocket money every week at the school bank and are allowed to purchase freely whatever thing they like from the School Shop. Every feature of these special schools has psychological significance and meaning.

I may say here that all these new experiments in the field of reforming the Young Offenders are being conducted under the direction of the Chief Inspector of Certified Schools. And enthusiasts like Mr. Hampson, the well-known English novelist and journalist, who have studied similar institutions in various countries, have finally come to the conclusion that Madras State is leading in such experiments in India.

Superannuated Teachers for Schools Under Local Bodies

The Government have accorded permission for the re-employment of superannuated teachers upto the age of 60 in Secondary Schools under local bodies, as in the case of Secondary Schools under private managements. The re-employment should be made by the Presidents of District Boards and executive authorities of municipalities, subject to certain specified conditions.

The above arrangement will be tried, in the first instance, for a period of five years with effect from the date of the Order. The position will be reviewed at the end of the period and the question of amending Rule 14 of the rules relating to establishments under District Boards and Municipal Councils will be considered, if necessary.

This action has been taken by the Government in order to meet the existing dearth of qualified teachers for employment in Secondary Schools under local bodies.

New Municipalities

The attention of the Government has been drawn to a report that they propose to constitute 50 new Municipalities with effect from April 1, 1950. This report is not based on facts. The question of constituting a few towns as Municipalities is under the consideration of the Government, and it may take about two to three months before they arrive at a final decision on the matter.

Veterinary Services

Moving in the Madras Legislative Assembly "that the Government be granted a sum not exceeding Rupees 47,14,900 under Demand XIX—Veterinary," Sri A. B. Shetty, Minister for Agriculture, said: Under the existing conditions and the system of farming in India, we cannot think of improving agriculture without improving the quality of cattle required for agricultural operations."

In the course of his speech, the Minister for Agriculture observed: There are three classes among breeds of cattle, milch, draught and dual-purpose breeds. The Ongole breed are dual-purpose animals, the females of which are good milkers and males are good for draught purposes. Provision of stud bulls and compulsory castration of inferior bulls are both necessary for raising the quality of stock. Good breeding stock is scarce, inferior bulls are not castrated and there is indiscriminate breeding in common grazing grounds. It has been estimated that 50,000 bulls of approved types will be necessary to meet our requirements. As against this large number only 1,289 bulls and 397 buffalo bulls have been provided under the premium and other schemes and this number includes the bulls maintained at the Veterinary institutions also.

The difficulty created by the paucity of approved breeding bulls can be overcome to some extent by adopting the method of artificial insemination which has been successfully tried at the Veterinary College for a year. This work has recently been extended to the Veterinary hospitals at Coimbatore and Guntur. Further centres will be opened in suitable places in due course.

Livestock Farms

Government have four pedigree livestock farms at Hosur, Lam, Kurikuppi and Visakhapatnam. The farm at Visakhapatnam is being developed as a dairy-cum-livestock farm; 272 Murrah she-buffaloes have recently been purchased from Northern India and brought to this farm. Dr. Kothavalla, Dairy Development Adviser to the Government of India, has sent several suggestions for the proper working of this farm. Our post-war scheme provides for establishing livestock breeding farms in two districts every year. Steps are being taken to open cattle farms in South Kanara, Malabar and Kurnool. A Village Livestock Improvement Scheme has been sanctioned for introduction in four of the Firka Development Centres in Guntur, Coimbatore, Bellary and Tanjore Districts.

To encourage private enterprise in cattle-breeding work, Government have recently sanctioned a scheme for the grant of assistance to cattle breeders in the form of subsidies, loans, grant of free lease of lands for raising fodder crops, exemption from water-rates and free grazing in reserved forests.

Salvage of Dry Cattle

The neglect of milch animals when they become dry makes them irregular breeders and it also reduces the yield of milk during their next lactation. Since the maintenance cost is high in urban areas, dry cows are often times sold and they go to the butcher. There are two dry stock farms, one at Kambakkam Kancha and the other at Vattambedu, to salvage the dry cows and she-buffaloes of Madras City. The question of opening salvage farms,

one at Chintaladevi in Nellore District and another at Tirunelveli, is under consideration. If these farms can be made self-supporting, it would become easy to open and maintain such farms in every district under the agency of co-operative societies.

Disease Control

The control and eradication of contagious diseases is one of the outstanding problems facing the Veterinary Department. We have frequent outbreaks of epidemic diseases which kill or incapacitate considerable numbers of our cattle. At present there are 144 veterinary dispensaries and hospitals and 169 touring veterinary assistant surgeons.

Several problems relating to diseases of cattle, sheep and poultry require investigation and research is also necessary to find out more efficacious sera and vaccines and better methods of immunising cattle. Most of the biological products required by the Department are manufactured at this Institute at Ranipet. It is proposed to take up progressively the manufacture of other products also and develop the Institute into a first-class research institute. Provision has been made in this Budget to effect certain immediate improvements to make the buildings at Ranipet fit for use at a cost of Rs. 71,400. A more comprehensive plan for reorganisation and improvement of this institute will be taken up later.

Veterinary Education

Our Veterinary College is one of the best of its kind in this country. With better staff, equipment and accommodation its standard can be raised still higher. The admissions to the B.V.Sc. degree at the College have been gradually increased from 40 to 100, but due to lack of accommodation, the number had to be reduced to 80 in the current year. Certain extensions and improvements for the Veterinary College and Hostel are now under execution at a cost of about Rs. 1.60 lakhs. The question

This bull of Hissar breed is a Prize-winner; such breeds will be used to improve local stock



of reviving the refresher course and providing facilities for post-graduate studies at the College is under consideration.

In order to provide a cheaper agency to carry out the work of the Department, a course of two years qualifying for appointment as Veterinary and Livestock Inspector was instituted in 1948-49. This course is being conducted at Hosur and a maximum of 75 students are admitted annually. Provision has been made in the Budget for the appointment of 50 Livestock Inspectors who are expected to finish their training by next June. They will do castration, inoculation and treatment of minor ailments in rural areas and help the touring staff in their work and also relieve them of some of the routine duties they have to do.

Sheep and Goats

A Sheep and Goat Development Officer was appointed in 1943 to formulate schemes for improvement of sheep and goats. A sheep farm has been opened near Ootacamund to salvage the white woolly sheep in the Nilgiris. A scheme for the purchase and distribution of Bikaner rams for improving the woolly type of sheep in Bellary District has been sanctioned. Bikaner rams are also distributed free to the ryots in sheep rearing areas.

Poultry Development

A Poultry Development Officer is in charge of all poultry development work. Birds of exotic breed are maintained at the Poultry Research Station, Madras, and the Livestock Research Stations, Hosur and Lam, and at the two Agricultural Colleges. Poultry demonstration units are attached to several of the veterinary institutions in the State and also some of the Agricultural Research Stations. Three District Poultry Farms have been opened in 1948 in Chittoor, Cuddapah and Cannanore. A grant is given to poultry in North Arcot District. Sanction has recently been accorded for the extension of poultry work to one centre in each of the districts of North Arcot, South Arcot and Chittoor on the lines of the one maintained at Katpadi by the American Arcot Mission.

The Ranikhet disease is an impediment to poultry development since it is widespread and endemic in our State and the cause of heavy mortality. A vaccine to protect fowls against the Ranikhet disease is being manufactured at the Veterinary College. One Veterinary Assistant Surgeon from each district has been specially trained in the technique of this vaccination. When these vaccinations are done on a large scale, it will be a great boon to the poultry industry.

Dairy Industry

There is a large unsatisfied demand for milk and ghee in all our cities and towns. The problem of providing a cheap and pure supply of milk and milk products has to be met by starting dairy farms. Co-operative organisations have taken up this work and formed 30 milk supply societies and 148 milk supply societies for meeting the needs of towns and cities. They tap and develop rural sources of milk supply and they are encouraging ryots to develop milk production as a side-line of agriculture. Government are providing veterinary assistance to these unions and societies. Interest-free loans are being given to members of these milk supply societies for the purchase of such animals.

Automatic Phones for Public Call Offices

With a view to reducing delay in obtaining connections from Public Call Offices and making the service more efficient and popular, it is proposed to effect certain improvements in the operation of the existing system of call offices. In the new system, instead of an operator obtaining the required number, the caller dials the required number as in the case of a direct connection. As an experimental measure, four such automatic type of call office boxes have been fitted at the following places:

1. Telephone House Gate.
2. General Hospital Gate.
3. St. Thomas Mount Exchange Gate.
4. Meenambakkam Aerodrome.

Telephone directories are kept at these places for reference by the users.

In this new system, the caller lifts the receiver from its rest and listens to the dial tone. On hearing the dial tone, he dials the required number. As soon as the called party answers, the ringing tone will automatically stop. Immediately, two one-anna nickel coins are dropped into the box and conversation can take place. The receiver is replaced after the conversation is completed. If the coins are not dropped, conversation will not be possible.

If the called number happens to be engaged at the time, the "engaged tone" will be heard through the receiver. Coins should not be put in the box when "engaged tone" is heard. Instead, the receiver should be restored on its rest and the required number dialled again after a short interval.

Free calls to "Enquiries", "Complaints", etc., are not possible from these Public Call Offices. More such automatic boxes will be fitted in due course if the above four automatic P.C.O.s are found to afford satisfactory service to the public.

Key Village Scheme

What is known as the Key Village Scheme has been recommended by the Cattle Preservation and Development Committee and other authoritative bodies as the best method by which substantial improvement can be achieved in cattle. The essence of this scheme is to select a compact area of contiguous villages containing sufficient bulls and castrate or remove from that area all the scrub bulls existing there. The object of this scheme is to remove the defects of the present system of bull distribution and ensure a concentrated and continuous plan of improvement.

Foreign Exchange Regulation Act

The ordinary obligations of nationals of India under the Foreign Exchange Regulation Act, 1947, not arising from trade transactions, are briefly set out below:

All transactions in foreign exchange are subject to the provisions of the Foreign Exchange Regulation Act, 1947, and regulations and instructions issued thereunder by the Government of India and the Reserve Bank of India. The main obligations fall into three classes:

- (1) Use of foreign exchange granted for specific purposes;
- (2) Opening and operation of foreign currency accounts; and
- (3) Miscellaneous, e.g., bringing in or sending out of currency notes, jewellery, gold and silver, travel facilities, etc.

Foreign exchange sanctioned for a specific purpose may be utilised only for the purpose for which it is granted. Where foreign exchange sanctioned for a specific purpose is not utilised fully, the balance must be sold to an authorised dealer, that is, to a bank or a banking company authorised by the Reserve Bank of India to deal in foreign exchange.

Under certain conditions persons resident in India are permitted by the Reserve Bank of India to maintain foreign currency accounts with banks in foreign countries. The bank has granted general permission to persons resident in India to maintain and operate on accounts in sterling or in any other sterling area currency, provided that such accounts were in existence prior to the 8th July 1947 but fresh credits to such accounts require the prior approval of the Reserve Bank of India. Also the opening of new accounts in sterling by persons resident in India requires the prior permission of the Reserve Bank.

Non-Sterling Area Currencies

The general permission granted above does not apply to accounts held in non-sterling area currencies. Residents of India holding balances expressed in U.S. dollars or Philippine Pesos are required to sell their foreign exchange to an authorised dealer in India within one month from the date of acquisition of the exchange against payment in rupees at the current official rate of exchange in terms of Government of India Notification No. 12 (13) F-1/47, dated the 25th March 1947. Indian nationals resident in India holding an account in any other non-sterling area currency should apply to the Reserve Bank of India for a licence to continue to hold such account. These applications are considered on their merits. In the absence of a licence from the Reserve Bank of India, however, Indian nationals resident in India who are already holding or who may become owners of any foreign exchange should sell the foreign exchange to an authorised dealer in foreign exchange in India.

Persons resident in India who are, or become owners of foreign securities are permitted, subject to the Exchange Control Regulations, to hold or retain these securities. Transactions in foreign securities held by residents can only take place with the prior permission of the Reserve

Bank of India. Acquisition of foreign securities by purchase require the Bank's prior approval.

Government servants who are posted abroad are permitted to open accounts in the country of their residence without the permission of Indian Exchange Control, but credits to such accounts by remittances from India require the prior permission of the Reserve Bank. On return to India of the account holder, the account should be closed and the amount surrendered to an authorised dealer in foreign exchange in India.

Foreign exchange (both sterling and non-sterling areas) at the disposal of residents of India must not be made available to others against receipt of rupees in India, or any other foreign exchange elsewhere as this would be an infringement of the Exchange Control Regulations if one of the parties to the transaction is resident in India.

There are no restrictions as to the amounts of currency notes or coins which may be brought into India by passengers except in the following cases:

Bank of England notes	..	£5 per head.
Straits dollar notes	..	\$45 per head.
Egyptian notes	..	£20 per head.
Australian notes	..	A£10 per head.
Burma and India notes from Burma.	..	Rs. 100 per head.
Indian coins and one rupee notes from Pakistan.	..	Coins Rs. 5 in value per head one rupee notes.
Afghanistan	..	Nil.

The amounts which are brought into India have to be declared to the Customs authorities. Foreign currency notes brought into India have to be sold to an authorised dealer in foreign exchange in India to facilitate purchase by an authorised dealer without intervention of the Reserve Bank of India, it is necessary to declare the notes on arrival to the Customs on an appropriate form 'B', 'BX' which is signed and stamped by them in token of verification of the declaration. The notes should be tendered to an authorised dealer in foreign exchange along with the above form which has been verified by the Customs. The permission of the Reserve Bank is also required for taking out Indian or foreign currency notes exceeding in value Rs. 270 per month.

Transfer of pensions from Dominions

With regard to the procedure for transfer from the Dominion of Pakistan to the Republic of India and vice versa of pensions of pensioners of the Central and Provincial Governments of either country, the President has decided to extend, for a further period up to the 30th September 1950, and subject to the existing conditions, the present arrangements for the payment of advances of pensions to displaced pensioners, pending the transfer of those pensions. Advances will continue to be admissible during the period to the same persons as have already been in receipt of such advances, and to the same extent.

Compost Development Committee Meets

A meeting of the Provincial Compost Development Committee was held recently in the Secretariat with Sri A. B. Shetty, Minister for Agriculture, presiding. The Commissioner for Food Production, Director of Agriculture, Secretary to Government, Local Administration Department, Inspector of Municipalities and Local Boards, Registrar of Co-operative Societies, Deputy Secretary to Government, Food and Agriculture Department, the Statistical Officer, Deputy Director of Public Health, the Commissioner, Salem Municipality and other non-officials such as Sri A. K. D. Balarama Raju of Rajapalayam, representing the agriculturists, Sri Seshachalam Ayyar of Tiruvannamalai, representing Co-operative Societies were present.

The Provincial Compost Development Officer gave an account of the work done since the Committee last met in October 1949. It was disclosed that 75 municipalities and 45 panchayats are engaged in the production and distribution of compost manure to the extent of nearly 96,000 tons. From 1st April 1950, 14 more municipalities will begin to make compost manure. Certain proposals to intensify the drive for production and popularisation of compost manure were then discussed. The heads of the departments concerned have agreed to issue necessary instructions to their staff. It was agreed that the Inspector of Municipal Councils and Local Boards should insist on all municipalities and major panchayats that they should manufacture compost from night soil and street sweepings and the Commissioner of Civil Supplies should issue instructions to Revenue Staff for increasing production of rural compost from wastes and that the Agricultural Demonstrators, Health Inspectors, Revenue Inspectors and village officers should pay attention to this work.

The progress made by municipalities for utilising the sewage and sullage water for raising suitable fodder grasses was also discussed. It was stated that due publicity was given to the benefits of compost manure in the press and over the radio and the prejudice against it in some places had almost disappeared. The fixation of price at a flat rate of Re. 0-10-10 per 25 cubic feet of compost and the assurance of the Government to meet any reasonable losses such as of the municipalities and local boards, which had actually incurred such losses went a long way in increasing the sales. It was decided that a few municipalities which had not yet adopted the uniform price should be told to adopt it forthwith and that municipalities generally should not try to make profits on compost manure and should thus contribute their share to Grow More Food efforts.

Local Advisory Committees for advising and assisting in the manufacture of compost will be constituted at an early date as an experimental measure in the six selected municipalities. The Committee recommended to Government under the Economic Adviser to Government Department collection of statistics in 150 villages comprising nearly 20,000 households in one district to have an estimate of the manure available in the State as suggested by the Government of India.

As a part to the Grow More Food Campaign the compost manure is being popularised and made to increase the productive capacity of the soil. The night soil and other rubbish which were formerly wasted are being converted into compost manure by a simple process and the municipalities and local boards are given necessary advice and encouragement in this direction by the State Government. It was considered that a target of two lakhs of tons of compost in 1950-51 should be aimed at. The Minister for Agriculture desired that sufficient drive should be put into the programme for production of more compost by all the departments concerned.

Sale of Imported Cement

The sale of imported cement, as opposed to indigenous cement, is at present governed by Section 5-A of the Cement Control Order and under this section, dealers may, if they are authorised in writing to do so by the Honorary Cement Controller, sell anything up to 50 per cent of their stock of imported cement to any person without permit but up to a maximum of 20 bags per person. Government have now examined the question whether it is necessary to have this restriction regarding the sale of imported cement and they have decided that it should be lifted for the time being. They have therefore amended Section 5-A of the Control Order and the relevant portion of the new section reads as follows:

"Provided that the person so bringing or causing to be brought imported cement, or the person so licenced may, if the Controller aforesaid authorises him, in writing in this behalf, sell cement to *bona fide* consumers who have not obtained the quota certificates referred to above, subject to the following conditions, namely:

- (1) The quantity sold to each such *bona fide* consumer shall not exceed such number of bags, if any, as may be fixed by the Government from time to time;
- (2) In respect of each such sale, the person selling the cement shall issue to the buyer a certificate that the sale is under the proviso to this clause;
- (3) The total quantity of cement which such person may so sell shall not exceed such quantity, if any, as may be fixed by the Government from time to time."

Government do not at present propose to fix any limit as regards the number of bags of imported cement that may be sold to each consumer or the total quantity of imported cement which may be sold by the dealer. Therefore, the dealers may sell any quantity of such imported cement to any *bona fide* consumer.

Single Country Chekkus

The Government have ordered that the owners of single country chekkus, dealing exclusively in the produce of their chekkus, be exempted from the levy of Sales Tax for a further period of one year from April 1, 1950. The owners have to take out a licence on payment of a fee of Rs. 5.

No Sex Discrimination in State Service

Article 16 (1) and (2) of the Constitution of India removes altogether any disqualification on account of sex for purposes of employment under the State and give men and women equal opportunities in the matter. The Government of Madras have, therefore, decided to delete all references to and provisions for the reservation of posts for either sex and the prohibition of appointment of members of either sex from the service rules concerned and to amalgamate men's and women's cadres, where they are separate, into one cadre, making no reservation of any percentage or proportion of posts in any service, class, category or grade in favour of either sex. Necessary amendments to the special rules for the services concerned will be issued separately.

The orders issued by the Government under Section 275 of the Government of India Act, 1935, prohibiting the employment of women in specific posts being inconsistent with the Constitution of India and void under Article 13 (1) should be deemed to be cancelled.

While under Article 16 (1) and (2), both men and women should be given equal opportunities for appointment to public services in the State, Article 15 (3) of the Constitution empowers the State to make special provision for women and children. Therefore, if the Government consider that the appointment of women to any category of posts such as the posts in institutions for women and children is essential with reference to Article 15 (3), provision for the appointment of women alone in such cases can be made. A general rule in the Madras Provincial and Subordinate Services Rules, specifically empowering the appointment of women to such posts, will be issued separately.

Tiruvur Firka

The Government of Madras have directed that Rompimalla, one of the villages in the Tiruvur firka under the Firka Development Scheme, be deleted from the list of villages included in the Tiruvur firka in the Order dated August 9, 1949.

This action has been taken by the Government, since the village of Rompimalla has been handed over to the Government of Hyderabad, in accordance with the recent agreement entered into between the Government of India and the Government of Hyderabad, by which certain villages of Krishna District have been transferred to the Government of Hyderabad and certain other villages have been taken over from them.

Sugar (Futures and Options) (Prohibition) Order

The Government of India have notified an amendment to the Sugar (Futures and Options) (Prohibition) Order, 1949, which states, among other things, that 'gur' means the article commonly known as gur, gul, jaggery, palmyra jaggery, shakkar or rab, and includes raw sugar or uncrystallised sugar in any other form composed of original and convertible molasses and other impurities inherent or foreign, and prepared by boiling cane or palmyra juice.

Pavanje Thodu Scheme

The Pavanje Thodu Scheme is for the construction of a dam across Pavanje Thodu, a tributary of Pavanje River in South Kanara District. The scheme seeks to prevent the influx of salt water and at the same time provides for the storage of fresh water for irrigation in Chillairu and Surathkal villages in Mangalore Taluk of South Kanara District at an estimated cost of Rs. 91,075 including direct and indirect charges. The scheme is expected to benefit the existing ayacut of 220 acres for second crop and to result in an additional production of 85 tons of rice per annum.

W.H.O. Malaria Control Team

The World Health Organisation in whose programme of assistance malaria control has been given top priority, has fortunately chosen Ernad Taluk in Malabar District as the field of operations in Madras State and has sent its team of experts (consisting of one Malariologist and a Public Health Nurse) there for demonstration work for a period of two years. This Government have set up a "parallel" Indian team to work in conjunction with it and to continue the work after the World Health Organisation team has left.

Relief for Cyclone Affected Areas

With a view to give relief to the areas affected by the Cyclone of October 1949 in Visakhapatnam, East Godavari, West Godavari, Krishna and Guntur, the Government have already sanctioned remission of land revenue at varying rates for the wet and dry lands affected by the Cyclone. In addition, the Government have now ordered the grant of full remission of land revenue for damaged coconut topes. If the entire survey number is occupied by the coconut garden full remission will be given; if only a portion of the survey number is occupied by it, remission will be granted in proportion to the area under coconut.

Copyright in Government Publications

Copyright in Government publications vests in the Government and any reproduction for sale of a work in which copyright subsists with Government constitutes an offence under the provisions of the Indian Copyright Act.

It has been brought to the notice of the Government of India that some firms are infringing Government copyright by reprinting question papers set at the various examinations conducted by the Union Public Service Commission. The Government of India take a serious view of the matter and warn all such agencies that Government will be constrained to take legal action against the parties concerned in accordance with the provisions of the Indian Copyright Act, 1914, if such infringement of Government copyright is not stopped forthwith.

Ramanathapuram

The Government of Madras have renamed the village, taluk and district of Ramnad as Ramanathapuram.

Leather Technology in Madras

The leather industry is perhaps the oldest known to mankind. Though rubber, plastics and such other artificial synthetic substitutes have been invented and put to use, leather holds its own and cannot be easily replaced. In the production of hides and skins, the primary raw material of the leather industry, India stands foremost among the world countries. The annual output is roughly one-fifth of the world's production. The cattle population of India, according to the 1935 census, is 2,235 lakhs and the goat and sheep population 1,037.8 lakhs. After the partition, one-sixth of the bovines and one-eighth of the goats and sheep belong to Pakistan.

India's position in the international leather market is unique and she is the largest producer as well as exporter of hides and skins. The bulk of the leathers that are being exported from India are from Madras State. This constitutes about 95 per cent of hides and 85 per cent of skins exported from India.

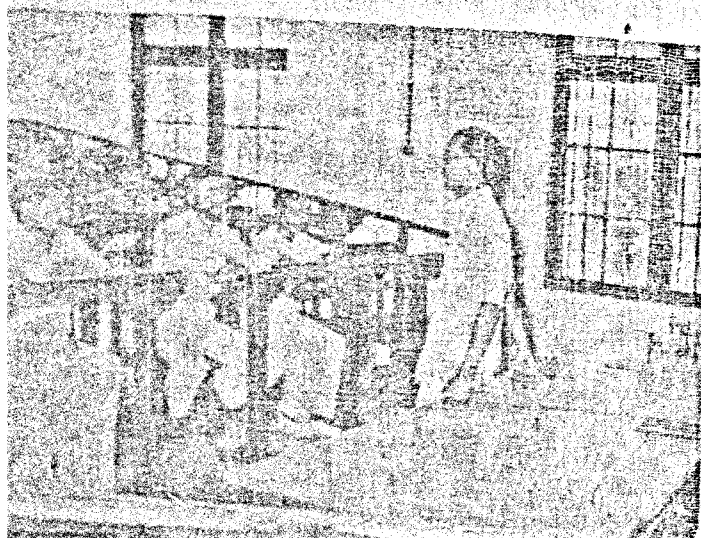
According to the last half-yearly official review of commodity prices and trends, export of hides and skins (raw and tanned) rose to 17,508 tons from 16,000 tons for the corresponding period in 1948 in spite of the fact that India had to curtail export of certain varieties not available in this country. In terms of value, there was an increase from Rs. 9 crores in 1948 to Rs. 11 crores.

Madras Leather is World Famous

South Indian tanned leathers are in good demand in various parts of the world. The sheep skins of Madras are said to be the best, producing light, smooth and fine grained leather. The skill of the Madras tanner is world renowned and the preparation of skins is a speciality of the State.

The defects in hides and skins are generally due to the inferior breed of livestock, maltreatment of animals, branding them with red-hot iron and goading them with sharply pointed sticks and animal diseases. The above defects have been causing enormous loss to the State. These have to be rectified by taking proper steps to improve the quality of livestock and by educative propaganda. Other factors which determine the value of hides and skins are the care taken in removing them from the

Theory class in progress



carcass and the manner in which they are preserved. These leave much to be desired. Imperfect shape, knife cuts and sores while flaying, depreciate the value of hides and the loss to the State on this account is estimated to be Rs. 25 lakhs annually. By licensing the slaughter houses and requiring the employment of skilled flayers, loss on this account can be reduced considerably. Soon after flaying hides and skins are cured or preserved so as to reach the tannery in proper condition.

The process of curing has been in existence in this country from very early times; but the methods followed are not the best. They are to be further improved in the light of modern knowledge. Madras mostly used raw hides that are produced locally. Due to heavy demand for tanned hides during the first world war, the production of Madras tanneries increased and raw hides and skins were imported from outside the State.

Tanning Techniques

There are about 469 tanneries in this Presidency, about a fifth being situated in North Arcot District. The number of workmen engaged in this trade is 20,000 while 10,000 men are employed in the auxiliary trades. The common method in vogue in this Presidency is the vegetable tanning of leather. All the leathers manufactured in India were of vegetable tannage, until chrome tanning was introduced in this country.

India abounds in different kinds of tanning material. They may be grouped under three categories; bark tans, fruit tans, and leaf tans. The materials that are commonly used in Madras Presidency are *avaram*, wattle, myrobalans and *konnai*. *Avaram* bark is available in plenty in the water-lands of the State. *Konnai* was the material largely used in the tanning of hides, but is almost replaced by wattle bark. Myrobalan is one of the important tanning materials used in South India. The tree is found mostly in dry deciduous forests of the State. Wattle bark had been mostly imported from South Africa. The use of this tanning material has increased to such an extent that the wattle bark has taken the place of indigenous tanning material for tanning hides.

Wattle plantations have been tried in Madras. Wattle belongs to the family of acacias. They are indigenous to Australia, but have been successfully cultivated in other countries, particularly in Natal (South Africa). Experiments have shown that it can be successfully grown in the hills of Nilgiris at an altitude of 7,000 feet. A certain amount of spade work has already been done by the Forest Department and the Department of Industries and Commerce and Government have sanctioned large-scale plantations with a view to make the State self-sufficient in regard to this vital tanning material; 15,000 acres in the Kodaikanal Hills and 6,000 acres in the Nilgiris are now being planted with wattle.

Chrome tanning in Madras was started under the auspices of the Madras Government by Sir Alfred Chatterton in the beginning of the twentieth century. One of the first and largest chrome tanneries of Asia was

started in Madras by the late Mr. Chambers. Now all classes of chrome leather are manufactured here. There is also a possibility of manufacturing chrome soles and waxed soles on a cottage industry basis. The different kinds of leathers that can be manufactured here are chrome retanned kips, semi-chrome villow and bocalf, coloured linings and upholstery leathers, moroccos, sambar, kip lining, coloured suedes and russet and waxed kips.

Technological Training

The tanning industry had been carried on progressively in the State for more than a century. Yet no attempts were made to establish an institute for the training of technicians until the year 1915. The Leather Trades Institute is situated in Washermanpet, Madras. The early batches of students included those from other States. After several alterations the present Institute of Leather Technology started its revised course of instruction. The Institute is under the control of the Department of Industries and Commerce. A diploma course of three years in leather technology, a certificate course of three years in tanning and leather goods manufacture are now offered.

The Institute consists of three separate buildings. The experimental tannery contains a lime-house, tannery, dyeing, curing and finishing shops. The second building situated in front of the main building accommodates the office and library and the third is the old pencil factory in which the leather goods manufacturing section is accommodated. The lime-house has sixteen soaking pits for soaking, liming and bating. Both English and Madras knives and beams for unhairing and fleshing are provided for use and instruction purposes. Three bating paddles of different sizes, together with tubs for small-scale experiments complete the equipment of this department.

The tannery contains six leach, six suspender and fifteen handler pits and two tanning drums of six feet diameter. The curing and finishing shops contain machine for stoning, shaving, splitting, rolling, staking, glazing and buffing. There are also necessary tables, nailing out boards, dyeing drums and the usual hand tools. The laboratories are fitted with the necessary apparatus for the teaching of science and for the thorough examination of materials used in the leather trade. The research laboratory is reserved for research work connected with the special processes used in leather trade and for routine analysis.

Courses of Study

The Leather Trades Institute was renamed 'The Institute of Leather Technology' on May 1946, when the new courses were introduced and the staff increased. The following courses were started on July 1946:

The Artisans' Course is a two-year course in which students are given training in the tanning of leather and in the making of leather goods starting from wrist-watch strap to pig suit-cases. Simple dyeing of leather, methods which could be done on a cottage industry basis, is also taught. Only students from the Harijan community in the mofussil districts are admitted to the course. They are paid a monthly stipend of Rs. 25.

The Diploma Course in Leather Technology extends over three years; the minimum qualification for admission is S.S.L.C. with Chemistry as optional. Special concession is given to Harijan students and to those students of

any other community who are directly or indirectly connected with the leather industry. Adequate practical training is given to the students after the completion of the course for a period of one year in a tannery recognised by the Department of Industries. There is a three-year certificate course in leather goods manufacture. The subjects taught during the course are simple methods of tanning and dyeing and selection of all classes of leather required in the manufacture of leather goods.

Besides these there is a one-year course for tannery operatives and another course of six months duration in a special branch of the industry. In the latter case admission is restricted to persons engaged in the industry who desire to specialise in a branch of the industry and also to Chemistry graduates who desire to be trained in the analytical chemistry of leather manufacture by working in the laboratories.

The first degree course in Leather Technology was started in the State in 1945 with a generous donation by Dr. Alagappa Chettiar. This College is known as the Alagappa Chettiar College of Technology and is affiliated to the University of Madras. At present there are facilities only to train eight students here. Pending the construction of the College buildings and attached Laboratories, the Leather Technology students of the Alagappa Chettiar College of Technology are at present working in the Institute of Leather Technology. They do practical work in the Institute Tannery and laboratory work in the Institute Laboratory, and for their lectures the students go to the Government Textile Institute where accommodation has been found for their classes.

Value of Research

As in any other industry, research is of fundamental importance in the leather industry. Much has to be done to improve tanning methods and leather manufacture in the light of modern research carried on here and elsewhere. The Leather Trades Institute was the first institute in India where research work was started as early as 1923. The results obtained have been published for the benefit of the tanners.

It is gratifying to note that the Central Leather Institute is to be established in Madras, which is the most important leather trading centre. The foundation stone

Splitting machine at work—splitting leather into required thickness



of this institute was laid by Dr. S. P. Mookerji, then India's Minister for Industries and Supply, in April 1948. Requesting Dr. Syama Prasad Mookerji to lay the foundation stone of the Institute, Dr. S. S. Bhatnagar, Director of Scientific and Industrial Research, observed: "We live in an age of Science and the modern leather industry owes a great deal to Science. To develop and maintain the Indian leather industry, in the face of world-wide competition, ready access to new discoveries is very essential. Nowhere is the need for research so essential as it is in this complex process of leather manufacture." The Institute is expected to take shape very soon.

"Nothing Like Leather"

The multifarious uses of leather, both domestic and industrial, are too well known to need enumeration. It may be mentioned here that no synthetic substitute has so far been invented which can completely replace leather. One of the special properties of leather is its porosity which permits easy passage of air through it. Hence articles made of leather are harmless and comfortable to wear. This is a special advantage of leather over plastics.

The manufacture of leather goods is an industry which is bound to flourish as long as the animal kingdom exists. The greatest industrial use of leather is for transmission belting. Before the war India used to import about 25 lakhs of rupees worth of leather belting. Hence there is great scope and prospects for a leather belting industry in this country.

The Indian leather industry has many pressing problems big and small upon which the future of its prosperity depends. The Madras Government appointed a Committee to examine and report on the development of the Leather

THIRD AND FOURTH COVER PAGES

1. Students working in the laboratory.
2. Research laboratory: A researcher does tanning extraction and analysis filtration.
3. Fleshing of hides.
4. Tanyard showing tan processing.
5. Shaving machine for levelling leather and removing flesh.
6. Tanning and dyeing drums.
7. Staking machine for making skin soft.
8. Glazing machine for giving leather sheen.
9. Spraying colour on hides.
10. Sole stitching machine.
11. Artisan class for leather goods manufacture.
12. Finished articles of artisan class displayed for sale.

Industry in the State. The Committee has since submitted its report. The Committee has recommended *inter alia* the possibility of developing the industry on a cottage industry basis, improved methods for flaying and curing, the need for greater contact between leather technicians and those engaged in the industry and the reorganisation of the footwear industry through co-operative societies with the help of hand-worked machines.

Production and Marketing of Small Fruit

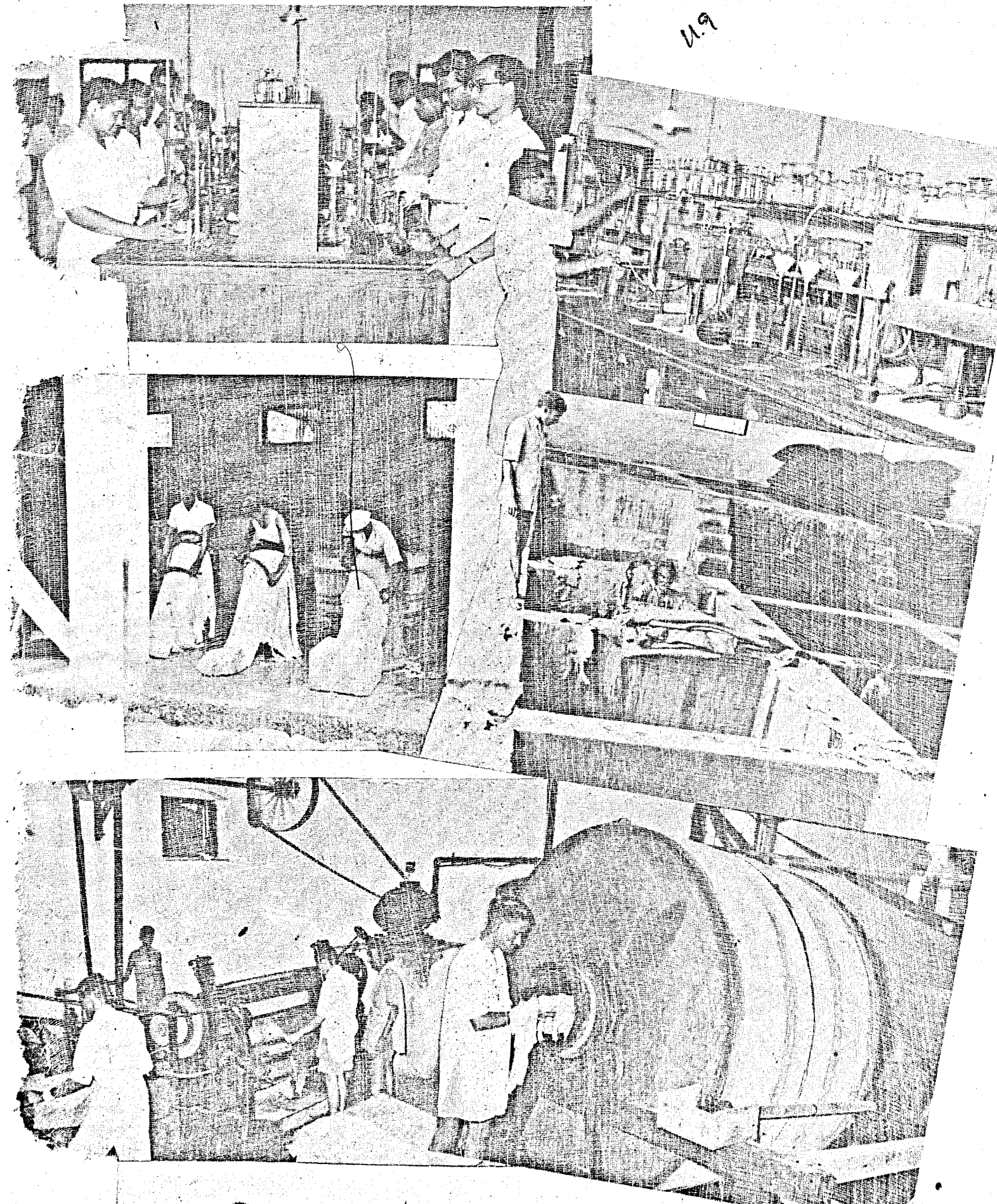
An account of the production and marketing of certain fruits like peaches, plums, cherries, strawberries, pineapples, apple and loquats, is contained in a bulletin issued by the Agricultural Marketing Adviser to the Government of India.

As against a total annual world production of these fruits estimated at 645 million maunds, India before partition produced annually only 3.8 million maunds. As a result of partition, it is estimated that about 47 per cent the area under peaches, 67 per cent of plums, 60 per cent of nectarines, 48 per cent of apricots, 10 per cent of strawberries, 35 per cent of pineapples, 10 per cent of apples, 41 per cent of pears, 64 per cent of quince and 13 per cent of loquat has gone to Pakistan. Moreover, peaches, plums, apricots, pears and quince of quality are produced in the areas that now constitute Pakistan. In the Indian Republic, the production of fruits like cherries, raspberries, currants, strawberries, apples, pears and quince is confined mainly to Jammu and Kashmir State. Pineapples are produced in Madras, Assam and West Bengal. Uttar Pradesh is now the main source of loquats as also of apples after Jammu and Kashmir. Serious efforts are, therefore, necessary to increase the area under those fruits.

Main Recommendations

The bulletin deals with problems of grading, assembling and marketing these fruits, as well as their storage and preservation. Among its important recommendations are:

1. To assist the planning future production of those fruits, State Governments should record the area, yield and production of each kind of fruit separately.
2. Fruit breeding work to evolve superior varieties should be taken up by the different States.
3. By introducing early and late varieties of fruits, the season of certain fruits like peaches and plums can be extended.
4. There is a great scope for increasing the use of those fruits in jam making and other fruits preservation industries.
5. State Governments should provide an efficient market news service in regard to these fruits.
6. Growers and packers should be encouraged to take up the grading and marking of these fruits under the *Aqmark* scheme.
7. It is desirable to organise co-operative societies for assembling and distributing the fruit.



EDUCATION

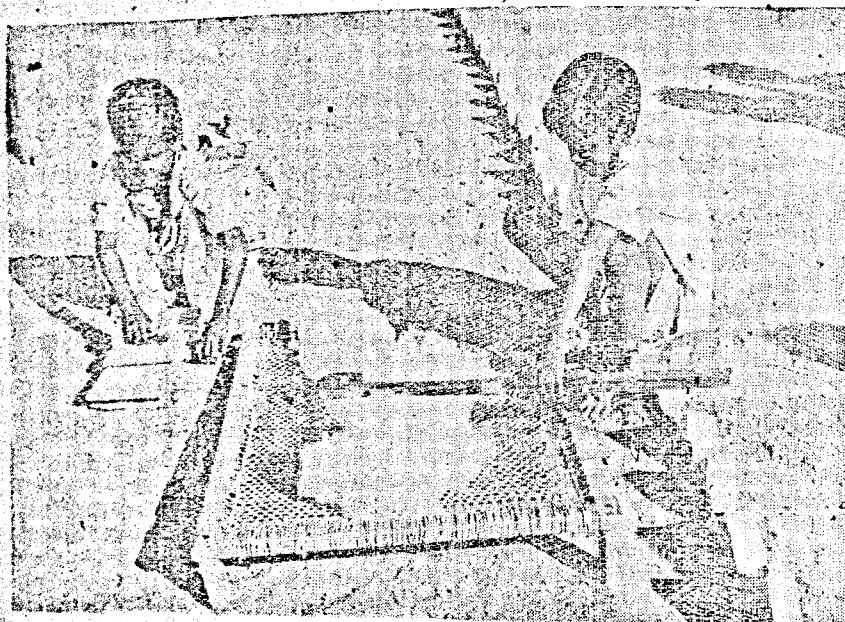
New School For Old

By Rev. T. R. FOULGER

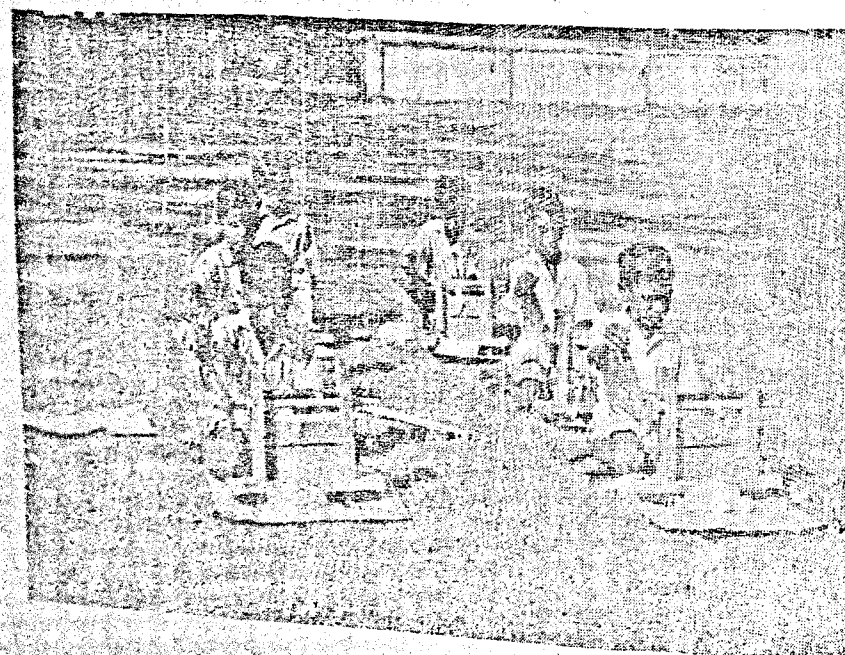
We have just introduced Basic Education in our B.T. Degree Class and Practising School; on the other day I thought I would go through our files and select some new pictures to hang on the walls. Among them was an almost forgotten set of pictures of towns in Ministry Schools in Britain. "These will not do," I thought, "but I may as well look them through." No sooner had I looked at the first picture than I became all eagerness. It showed four toddlers, one armed with a brick, clearing out a sand-tray. At the bottom of the picture I read, "At these schools children between two and five are cared for and given Basic Training." Picture five showed another tiny tugging away at a basket as he prepared his camp bed. "Self-reliance is a Basic Aim of good education," said the title, "and is best learned at an early age."

Every one of the twelve pictures had its "Basic" message. "Cleanliness and good habits are other foundations of education," said a picture showing eleven little people vigorously washing themselves. Other pictures showed children taking their food in an orderly way, children housekeeping, washing clothes, preparing vegetables for a meal. One showed a small boy doing carpentry work with a hammer almost as big as himself. "They were born to hammer their hammers," said the title.

As I made arrangements to have the pictures framed, I said to myself, "Here is a concrete answer to those who say that Basic Education in India is a dead end." Far from it. Basic Education is India's way of offering to the children of India, even today, the training for life which even times are scarce in other lands. Our children have the right to be taught habits of industry, cleanliness, the simple rules of health, how to behave at meals, how to behave in the house, how to behave in the school, at play, everywhere. Our children have the right to have the joy of working and to be encouraged in them. And this is the first step towards their becoming self-reliant and responsible citizens of India.

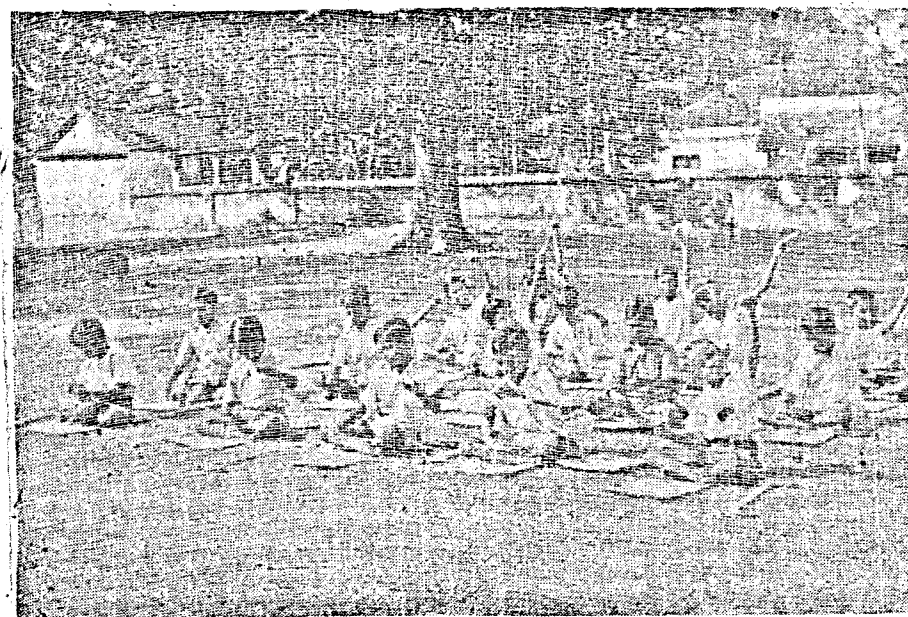


Basic Training School, Kallupatti: They are proud of their workmanship.



Ginning-works Warders, Madras.

EDUCATION



These pupils of the Meston Training School are enthusiastic spinners

Some people think that there is no definite syllabus for Basic Education. For two months we have been using the syllabuses of the Hindustani Talimi Sangh and found them most fascinating. All the activities I have mentioned above are to be found in them in an India-setting; and there is ample provision also for oral expression, reading and writing, mathematics, general science, art, music and physical education. The syllabuses are adequate but not too detailed. I personally hope they will remain so, for they offer to teachers and pupils new opportunities for initiative which the detailed bookish syllabuses tended to discourage.

How do our Basic classes differ from the old primary classes? The timetable on the wall does not look so very different, except that it provides two hours a day for craft work. What is different is the atmosphere. I wish you could come and see our little people at their half-hour's silent spinning after tiffin. There they sit, each happily absorbed; and learning habits of creativeness and self-discipline which the old class-room methods never achieved. And they are as keen as can be. The other day, before school opened, I approached a class-room and heard a

"clatter-clat clatter". Looking in, I found a happy group of small boyhood busily spinning.

Of course Basic Education is an experiment—an experiment for our school as for the nation. We shall make our mistakes and, if we are wise, learn by them. I personally think, we shall find it well to modify some of our terminology. Basic Education in fact is far bigger than "Craft-centred Education", as even a cursory examination of the syllabuses will show. It is community-centred education. It seeks to serve the needs and ideals of India by centering upon the activities and problems of life in the community, among which a creative craft is an essential element. Just as a worthy occupation gives reality and direction to a good man's life without dominating the whole of it, so the basic craft gives reality and direction to the life of the school. (Of course the bad teacher can make it into drudgery; but who has not seen something of the drudgery of the text-book and the black-board in the hands of the same bad teacher.) Sharing in the same craft and the other practical activities of the Basic School also had inestimable value in helping its members to transcend those limitations of caste and community which have so grievously divided the nation.

Another word which, I think, causes misunderstanding is "Self-support". Lots of people seem to think that this means that the school should support itself by its crafts. (I've never yet met a practising teacher who thought this desirable or possible.) The aim of Basic Education is to make boys and girls self-reliant, so that they will not, as children, expect others to do everything for them, and when they grow up will seek or make a job for themselves and take their full place as responsible citizens of India.

At any rate, I think, Basic Education is an experiment to which we should give the best possible chance. For many years we have striven to make our elementary schools come alive. Yet thousands of children have not been attracted to them and thousands of those who attended them have, not even achieved literacy. There is no other programme in the field which offers such promise of new life as Basic Education. Let us give it the best possible opportunity of proving itself.

Better Manure for Food-Crops in Bombay

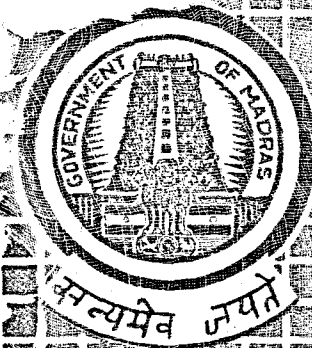
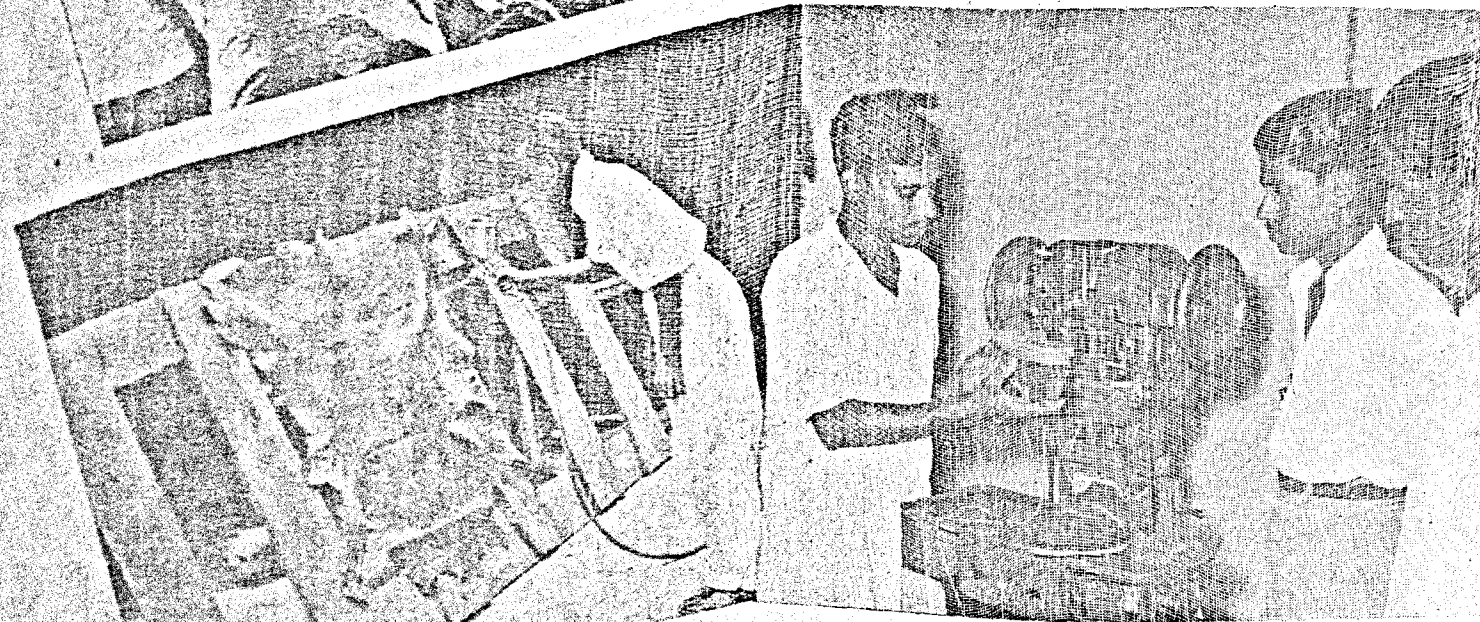
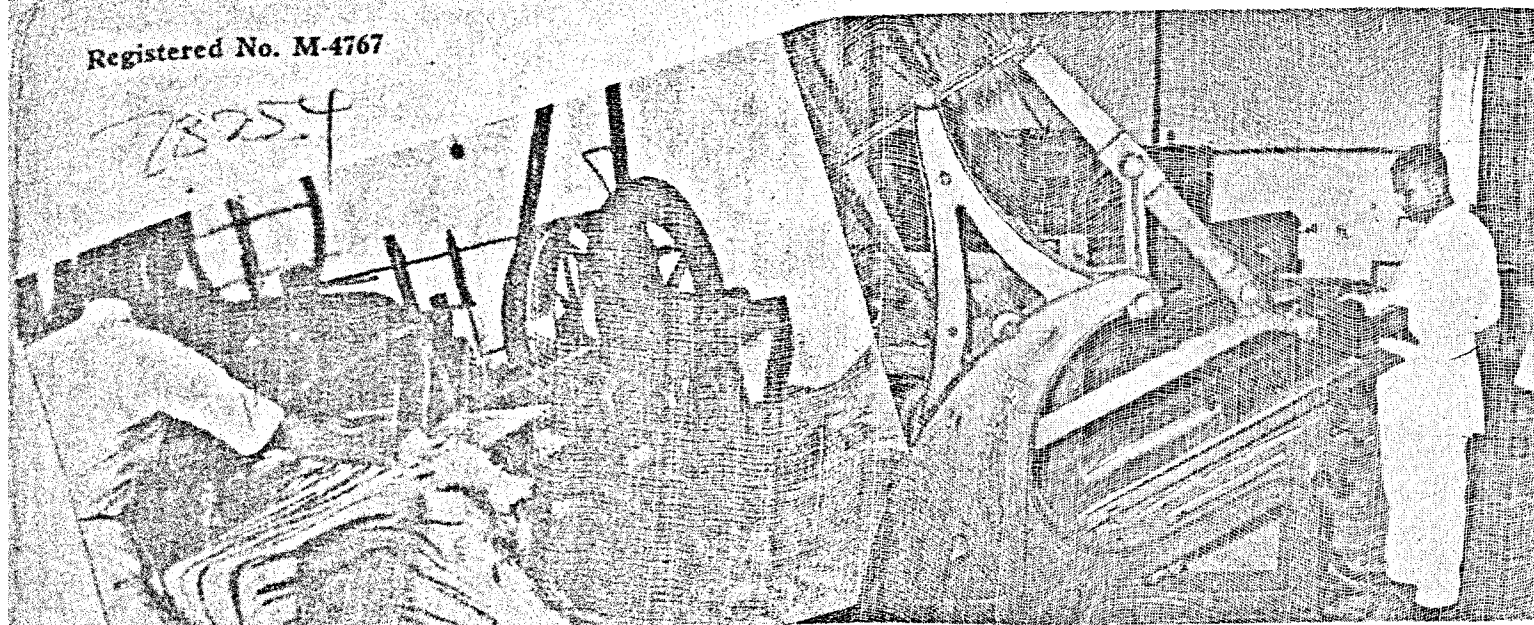
With a view to improving the quality and output of farm-yard manure in the Province, the Government of Bombay has sanctioned a scheme at an estimated cost of Rs. 35,14,177.

The scheme, which is spread over a period of two years and five months—from October 1 of this year to February 29, 1952—consists of improvement of cattle byres, conservation of all organic refuse from fields and villages and its use as bedding under the cattle, for absorbing urine which is rich in nitrogen and systematic construction and filling of manure pits.

A subsidy of Rs. 2 will be granted for every new pit dug on the village basis. The subsidy will be paid to the Village Food Production Committees, who in turn, utilize it for the benefit of the villages.

The scheme is calculated to bring about an increase of 50 per cent. in the quantity and of 0.7 to 1.3 per cent in the nitrogen content of the manure produced in the Province.

Registered No. M-4767



MADRAS INFORMATION



VOL. IV. NO. 6

MADRAS
JUNE
1950

Price, As. 3



Madras Information

Published every month by the Director of Information and Publicity
Fort St. George

Vol. IV, No. 6

"WE SEEK TO SERVE AND NOT TO COMPETE"

June 1950

CONTENTS

FOOD—

1. Youth Drive for Food Production—Chief Minister's Appeal	3
2. Food Production Drive—Sri A. B. Shetty	4
3. Progress of Grow More Food Campaign	6

AGRICULTURE—

4. Hints to Farmers	10
5. The Tamarind Tree	11
6. Bonemeal and Bloodmeal Production	13

PROFILE—

7. Gandhian Ideals: Self-Sacrifice—Dr. T. S. S. Rajan	16
---	----

NEWS AND NOTES—

8. Committee to Advise on Land Revenue Reforms	18
--	----

IRRIGATION—

9. Planning and Execution of Projects—Sri M. Bhaktavatsalam	20
---	----

WOMEN'S WELFARE—

10. Success of Integrated Scheme	24
----------------------------------	----

CULTURE—

11. Behind the Scenes in the Madras Museum—Sri S. T. Satyamurti	26
---	----

RURAL RECONSTRUCTION—

12. Firkha Development Work	30
13. Failure of Monsoon: Relief Measures Adopted	32

PROHIBITION—

14. Policy of Social Reform—Sri N. Sanjeeva Reddi	34
---	----

TRANSPORT—

15. The Government Coach Building Factory at Chromepet	37
--	----

HEALTH—

16. Leprosy Prevention and Relief	38
17. Health Minister's Comments on Problem	39
18. Blood Banks	42
19. How to Cook Eggs	43

POWER—

20. Review of Electricity Construction Work	44
---	----

INDUSTRY—

21. Sugar Production in Madras	46
--------------------------------	----

FORESTRIES—

22. Protecting Our Birds—Lieut.-Col. R. W. Burton	48
---	----

ANIMAL HUSBANDRY—

23. Minerals for Milch Cows—Sri C. Balasubramaniam	50
24. Colostrum and the Calf—Dr. C. Krishna Rao	51
25. Wanted: Earthworm Breeding Farms	52

H.E. THE GOVERNOR AT CHROME PET

Top: Watching a welder at work at the
Government Coach Building Factory
at Chromepet

Left: Standing room only! H.E. inspects the
spick-and-span interior and the
comfortable upholstery work

Right: A more spot of stitching for
making those roomy cushioned
seats

Bottom: H.E. the Governor acknow-
ledges the greetings of the
Chromepet workers

Youth Drive for Food Production

Chief Minister's Appeal

In the fight for freedom, youth battled in the vanguard; now, in the third year of our freedom, the nation again needs the services of youth as the spearhead of attack on the Food Front.

The young men and women of the nation are, at present, undergoing training for their future role of citizenry in New India. To all of them, the recent epoch-making events in our country, culminating in the birth of the Republic, are vivid realities. But youth cannot afford to rest content with mere pride in this precious legacy of freedom. Only when the citizens of tomorrow are prepared to shoulder the responsibilities of today, shall we have ensured the safe transmission of this heritage of freedom to successive generations. To those administrators, statesmen, industrialists, merchants, farmers and workers in the making—the heirs of Free India—this appeal is addressed for assistance in our gravest problem, Food.

Our Prime Minister, Pandit Jawaharlal Nehru, has already announced in his historic broadcast of June 29, 1949, that our food problem will be tackled on a war-footing henceforth. There will be no food imports after 1951, he has announced, and it is up to us to honour the word of our Prime Minister. Youth has vigour and vision; youth has ideas and ideals; youth is zealous to serve, impatient to achieve. If our young men and women can be persuaded to devote their spare hours to the food drive in any capacity—organiser, propagandist, contact man or educator—we shall have harnessed a vast potential for national service.

Social Worker to Guide Youth

The Government of India have decided to depute an honorary social worker to contact youths and youth organisations to enlist their aid for producing food and more food. The Government of Madras wholeheartedly support this move. It will not do merely to convene conferences, meet in assemblies, pass resolutions, honour presiding chairmen and propose votes of thanks. Real honest work, sustained endeavour, undiminished effort—that is the need of the hour.

The youth of the Nation must muster strong for this cause and rally forth into farm and field. Such constructive activities will have to be co-ordinated and concerted, conducted on a purely non-political and voluntary basis. An honorary worker, therefore, will organise and guide the Youth Drive.

Programme of Work

In furtherance of the campaign, the following programme of work is outlined:

1A



Young educated men and women will go into villages in small groups and popularise the various methods of increasing food production using all media such as leaflets, booklets, film, posters and magic lanterns. In the villages the pioneer group can help to establish local youth clubs to continue the campaign. In urban areas, youth can work for the Save More Food campaign.

I appeal to the young men and women of our State, in schools and colleges, in professional and technical institutions, and those in factories, offices and workshops, to come forward and do their bit. I also appeal to junior clubs, juvenile leagues and all associations where youth plays a prominent part, to join this Youth Drive for Food. Heads of educational institutions, Congress Committees and social service organisations can likewise help, by affording all help to youth to join this drive. Parents can serve by encouraging their children and wards to assist in the campaign.

I am confident that once youth sets the pace, the campaign will acquire dynamic progress and we will be well on the way to self-sufficiency in food.

P. S. KUMARASWAMI RAJA,
Chief Minister.



Study becomes play for little infants in the Kindergarten class of a modern Indian Nursery School. The Government of India's basic education scheme will give all children between 6 and 11 compulsory free education in five years time.

The Honourable Maalana Abdul Kalam Azad, Minister for Education, Government of India, delivering his Presidential Address at the Conference of the Indian Council of Cultural Relations held recently in New Delhi. The Honourable Pandit Jawaharlal Nehru, Prime Minister, who inaugurated the Conference, is seated at right of the Education Minister. Seated at his left is Dr. Tara Chand, Secretary, Ministry of Education.



Food Production Drive

By Sri A. B. SHETTY, Minister for Agriculture



use of improved seeds. Agriculture is exposed to a high degree of risk owing to the vagaries of the monsoon, since only about a third of the area under cultivation has irrigation facilities. The greatest need of the agriculturist is, therefore, an adequate and assured water-supply. Our major irrigation projects will take time to produce results. We have, therefore, to concentrate on minor irrigation schemes which will give quick results and help us to tide over the food crisis within the next two years. Two hundred and thirty-one irrigation schemes which are expected to be brought into beneficial use by the end of 1951-52 have been selected by the Public Works Department for concentrated attention. About 60 of these schemes have been completed in 1949-50; 15,427 subsidy wells have been completed up to the end of February in 1949-50.

Ryots must take full advantage of the help given for sinking new wells and repairing old wells, and complete the works they have undertaken within the stipulated time. A five-year scheme for effecting repairs and improvements to tanks and other minor irrigation sources estimated to cost Rs. 10 crores has been started in 1949. A special engineering staff has been appointed to carry out this scheme.

Oil engine and electric motor pump-sets are being supplied to ryots for the purpose of lift irrigation. The pumpsets are hired out at concessional rates. They are also sold on hire purchase system. The purchase of another 150 oil engines has been sanctioned for sale under this system.

More Manure for the Soil

The present low yield of crops in our country is mainly due to the poor fertility of our soil. Nitrogen deficiency and lack of humus are the fundamental defects of our soil. This has to be remedied. A judicious application of concentrated chemical fertilizers in conjunction with bulky organic manures will increase our crop yields by 10 to 50 per cent. About 50,000 tons of ammonium sulphate and 11,000 tons of phosphatic fertilizers were distributed in 1949-50. The Government of India have allotted 134,000 tons of ammonium sulphate for the calendar year 1950. The sale of super-phosphate and bonemeal at half the cost price will be continued up to the end of June.

Farmyard manure is the largest source of bulky organic manures. At least 50 per cent of our cowdung is used as fuel. If this is to be prevented an alternative fuel should be made available to the cultivators. The celebration of the Tree Planting Week is organised with a view to impress on the people the need for planting quick-growing fuel trees and utilise all cowdung for its proper purpose as manure. Green manure is most useful for maintaining the fertility of the soil and increasing the output of paddy crops. Government are encouraging its production and use by procuring and selling green manure seeds on a subsidised basis.

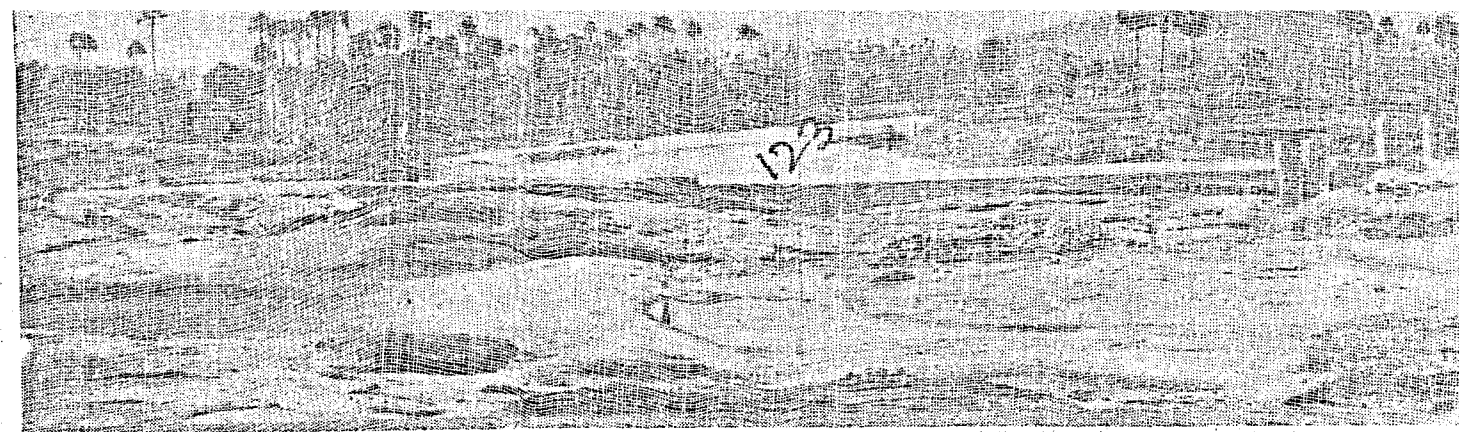
The Government of India lay great stress on compost making, both in the rural and urban areas. Compost, if

We are continuing to have an anxious time on account of food shortage. Food production and distribution has become one of the great preoccupations of our time. Even before World War II, Madras was importing about five lakhs tons of foodgrains every year. Madras has been the first State to take up Grow More Food work, but adverse seasonal factors and the increase of population at the rate of half a million per year have come in the way of our efforts to make up the food deficit in this State. The majority of our people do not get their minimum requirements of food at present. We are taking a predominantly cereal diet which lacks in certain essential ingredients, especially good quality proteins and fats. The milling of paddy removes much of the nutritionally important Vitamin B and it also causes about six per cent loss of weight. Our people suffer on account of under-nutrition and malnutrition.

The immediate problem is to feed the present population according to current standards of consumption and do away with food imports which threaten to disrupt the whole economy of the country, by exhausting our foreign exchange resources. The three-year food plan of the Madras Government seeks to increase cereal production and bridge the gap between the estimated requirements and the supplies available. We are now entering the second year of the plan. It is proposed to assess the direct results of the present intensive cultivation campaign by a system of crop cutting experiments.

Additional Supplies of Water

The three major lines of work which have been taken up for stepping up food production are provision of additional water-supply, production of more manure and spread of the



The Cheramangalam Anicut, across the Gayatri River near Cheramangalam, Palghat Taluk, Malabar District, and excavation of a channel therefrom to serve an area of 1,874 acres of second-crop, has been sanctioned at a cost of Rs. 7,10,000 and work is in progress

properly made from night soil and rubbish in towns and from cattle dung and urine mixed with the refuse and waste vegetable matter in the villages, will give us immense quantities of valuable and cheap manure which we so badly need. At present 80 municipalities and 54 panchayats are manufacturing compost. Steps are being taken to see that the rest of the municipalities and all the 360 panchayat boards having executive officers manufacture this useful manure. The urban compost will be sold to ryots at controlled rates. A subsidy of Re. 1 per ton or roughly two cart-loads is being paid for rural compost.

An intensive drive will be undertaken by the Commissioner for Food Production to increase the production of rural compost. Every farmer should be encouraged to have a compost pit into which he puts all the dung rubbish and waste matter from his home, cattleshed and field. This will increase our manurial resources to a considerable extent. Manure mixtures suitable for different kinds of crops are now being supplied by the trade. Government have recently appointed an inspection staff to keep watch over their quality and prices.

Better Seeds for Increased Yields

Several improved strains of paddy and millets have been evolved at our agricultural research stations. The improved seeds, besides having some special points in their favour such as resistance to disease, draught, salinity, etc., give an increase in yield of about 10 to 15 per cent. The nucleus seed are given from the research stations for multiplication in seeds farms of certain selected ryots. They are procured from them by paying a premium and then they are sold to ryots at a subsidised rate.

Government are considering the question of further popularising the use of improved seeds by lowering prices and making them more easily available in the interior villages. Steps have to be taken to supply reliable seeds to the cultivators in sufficient quantities and well in advance of the time he needs them. Special staff has been recently appointed for seed development work. They will also take steps to maintain the purity of the seeds and their germinating quality.

Plant Protection

Special staff has been appointed in January 1949 to combat pests and diseases which annually do considerable

damage to our crops. They have conducted major campaigns last year against the grasshopper pest, the swarming caterpillar pest and the rat pests. New drugs like D.D.T. have shown remarkable results in protecting large crop areas. The ryots have begun to appreciate the benefit of such remedial measures and there is now an increasing demand for pesticides. The chemicals required for this purpose are sold by Government at half the sale price and charges for the equipment used are levied only in the case of power operated machinery. The plant protection scheme will be one of the main planks of the Agricultural Department in its future work.

Prevention of Soil Erosion

Soil erosion is a great menace to agriculture, especially in places where lands are undulating and there is no protective cover of vegetation over them. In Bellary, Anantapur and the Nilgiris, one can see some of the areas badly affected by erosion. The need for protective measures against soil erosion is receiving increasing attention today in many countries. A scheme for laying permanent bunds along the contour to prevent soil erosion and conserve moisture has been taken up in Bellary and Anantapur Districts. It will be extended to Visakhapatnam and other districts in due course. The result of such work done in Bombay has increased the yield to an appreciable extent.

A considerable extent of cultivable waste land and old fallows is known to exist in every district, though no detailed survey has so far been done to find out how much of such land it would be economical to bring under cultivation. The Agricultural Department is now having 230 tractors, several of which are fitted with bulldozer attachments. These tractors are distributed among the several districts and they are being increasingly used for ploughing, removing sand and silt, eradicating deep-rooted weeds, clearing jungles, levelling and such other earth movement operations. Over 38,500 acres of waste land and old fallows have been reclaimed with the aid of tractors in 1949-50. The target for 1950-51 has been fixed at 80,000 acres.

Co-operation of Farmers and Public

The success of the food drive depends ultimately on the farmer. We have millions of small farmers spread

(Continued on page 9)

Progress of Grow More Food Campaign

The Commissioner of Civil Supplies who is a member of the Board of Revenue, has been appointed as the Commissioner of Food Production, with full control over the entire range of activities connected with the execution of the Intensive Cultivation Schemes of the different Departments. At district level, there are District Food Production Committees consisting of officials and representatives of non-officials with the District Collector as Chairman. These Committees hear representations from ryots who seek assistance for increasing food production, review the working of the various food production schemes in the District and make recommendations to the proper authority, in regard to all food production matters.

At the Government level, a Cabinet Committee for Food Production has been constituted; the Committee sanctions Food Production Schemes expeditiously without subjecting them to go through the usual circuitous financial procedure adopted for other schemes.

Targets

The Government have fixed a definite target to be reached by the end of 1951-52, by means of Intensive Cultivation Schemes relating to all Departments; the target is 5.4 lakhs annual tons of foodgrains (rice and millets) over and above the production in the base year 1948-49. This additional production will offset our normal pre-war imports.

	1949-50 TONS.	1950-51 TONS.	1951-52. TONS.
Agricultural Schemes ..	1,64,582	2,59,521	3,58,431
P.W. Dept. Schemes ..	18,015	36,418	63,621
Rev. Dept. Schemes ..	26,700	66,750	1,15,850
Total ..	2,08,797	3,62,689	5,37,902

Agricultural Schemes

(a) *Pumpsets*.—One important scheme in the Three-Year Plan of the Agricultural Department is the supply of oil

A member stores paddy in the godowns of the Nangavaram Village Co-operative Credit Society. This Society, in Tiruchirappalli District, has recorded 29 years of useful service. The two godowns accommodate 2,900 bags each.

engines and electric motor pumpsets to ryots for purpose of lift irrigation. So far 248 oil engines have been purchased and sold on the hire purchase system; at the end of March 235 oil engines and 447 petrol pumpsets were hired out. The acreage covered and the additional production expected from the distribution of pumpsets during 1949-50 are respectively 19,300 acres and 9,650 tons. Actually 10,085 acres have been benefited up to the end of March 1950, resulting in an anticipated additional production of 5,042 tons.

Tractors and Fertilisers

(b) *Tractors*.—Another important scheme of the Agricultural Department is the hiring of tractors for the reclamation of waste lands. The Department now has 230 tractors. Till now, the tractors were hired out at concessional rates, but it is proposed to increase the rate of hire charges suitably. Under tractor reclamation, the target fixed for 1949-50 are 40,000 acres yielding 10,000 tons of additional foodgrains. A total extent of 43,250 acres of wastes and old fallows have been reclaimed up to the end of March 1950, and the additional production expected out of this is 10,813 tons of foodgrains.

(c) *Chemical fertilisers*.—The Government have been supplying large quantities of *nitrogenous and phosphatic fertilisers* for application to food crops. For 1949-50, it was programmed to distribute 45,000 tons of ammonium sulphate and about 25,000 tons of phosphatic fertilisers so as to cover extents of 12.6 lakhs acres and 7 lakhs acres respectively. Actually from 1st April 1949 to end of March 1950, a quantity of 46,959 tons of ammonium sulphate and 11,918 tons of phosphatic fertilisers has been distributed in the several districts of the State, covering an extent of 18.1 lakhs acres. The total additional production of rice expected is 93,918 tons on account of ammonium sulphate and 9,931 tons on account of phosphates. Actually 30,316 tons of rice from ammonium sulphate and 5,407 tons from phosphate are reported to have been realised up to 31st March 1950.

To popularise its application to paddy crops, the Government have been selling phosphatic fertilisers at half the cost price. This concession will be available in regard to superphosphate and bonemeal up to the end of June 1950 only.

(d) *Improved seeds*.—The Government have been paying particular attention to the supply to ryots of *improved seeds of paddy and millets*. They are procuring improved seeds from seed farm ryots by paying them a premium and selling the seeds to ryots at a subsidised rate. The Government are considering the question of supplying improved seeds at the market rates applicable for consumption, paddy and also exchanging seed paddy for consumption paddy.

(e) *Green manure*.—The Government are attaching great importance to the production and utilisation of *green manure*. The Agricultural Department is procuring green manure seeds from seed farm ryots by paying them a premium of Rs. 6-8-0 per bag and selling them to ryots on a subsidised basis, by recovering through the sale price only half of the premium paid to the seed farm ryots.

The quantities fixed for the distribution of improved paddy, millet and green manure seed during 1949-50 are respectively 9,018 tons, 72 tons and 2,370 tons and the acreages to be covered are about 4 lakhs acres under paddy, 19,000 acres under millets and 150,000 acres under green manure. About 3.2 lakhs acres under paddy, 19,000 acres under millets and 87,000 acres under green manure have been covered up to the end of March 1950.

(f) *Compost*.—In order to increase the production and utilization of *indigenous manures*, the Government have taken adequate measures for the manufacture of compost manure both in urban areas and in rural centres. Under the Town Compost Scheme, it has been programmed to distribute 150,000 tons of compost during 1949-50. Against this, 51,322 tons of urban compost have been distributed up to the end of March 1950 and the additional production of grains anticipated from the use of the quantity is 1,265 tons. The target fixed for rural compost for 1949-50 is 42,600 tons. Against this, 35,425 tons have been reported to have been applied to the fields up to the end of March 1950 and this will result in an additional production of about 900 tons of grains as against a target of 1,000 tons fixed for the scheme.

Urban compost is being sold to ryots at a flat rate of 10 annas 10 pies per cubic foot and any reasonable loss sustained by the local bodies on this account is proposed to be made good by the Government. In regard to *rural compost*, the Government are encouraging its production by paying a subsidy of Re. 1 per every ton of compost produced and applied to crops.

(g) *Iron and steel*.—The annual requirements of *iron and steel* for agricultural purposes in this State is 60,000 tons. Against this requirement the supplies made by the Government of India are inadequate. The allotment made by them for this State for period I of 1950 is 7,465 tons, 6,700 tons for period II and 9,200 tons for period III of 1950.

(h) *Pest control*.—Under the Two-year Plan Scheme, fungicides, sprayers, etc., are stocked in agricultural depots and made available to the ryots at 50 per cent of the cost price. It is proposed to include this scheme in the Three-year Plan of Food Production under formulation. It is proposed to purchase chemicals to the tune of Rs. 4,50,000. It is also proposed to purchase sprayers, dusters, etc., required for the scheme at a cost not exceeding Rs. 50,000. The total cost of the scheme is therefore estimated at Rs. 5,00,000 out of which Rs. 2,25,000 will be recovered from the ryots towards 50 per cent of the cost of the chemicals.

Contour Bunding and Trenching

One of the items in the Grow More Food programme is a scheme designed to ward off soil loss by the construction of contour trenches and bunds. The scheme is at present confined to an area of 7,500 acres in the Nagari and Alur Taluks of Bellary District and the Gooty Taluk of Anantapur District. The capital cost of the scheme has been estimated at Rs. 8,19,171 and the recurring expenditure at Rs. 2,81,424 per annum. The Government of India's experts on Soil Conservation, who inspected the several areas in this State, have made some suggestions for extending the scheme to Visakhapatnam and Tirunelveli Districts.

As a result of the several schemes of the Agricultural Department mentioned, the quantity of foodgrains actually produced up to end of March 1950 is estimated to be 58,166 tons of rice against the target of 164,582 tons for the crop year 1949-50 (up to end of June 1950).

Two New Schemes

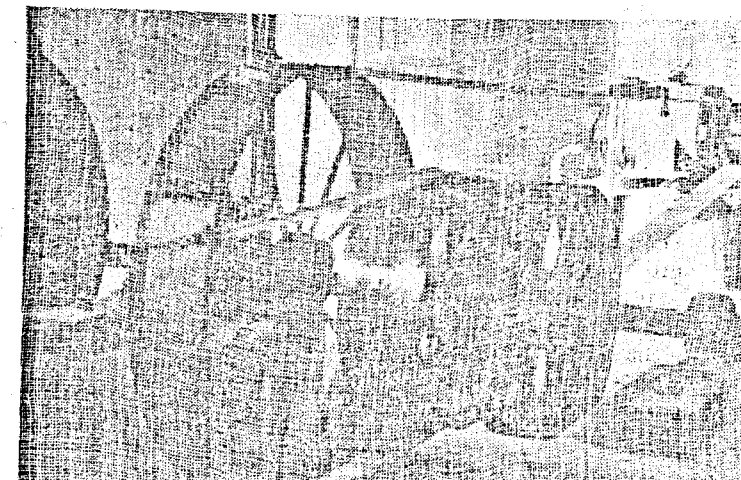
In order to associate the people who are actually engaged in food production work with the Government's programme of work, the Government have recently sanctioned two new schemes. One of the schemes is the setting up of multi-purpose co-operative societies in all firkas in seven districts to begin with. These societies will be required to distribute to ryots essential agricultural requirements like implements, seeds, manure, etc., collect statistics of food production, list out fallow lands and take steps to bring them under cultivation, etc., etc. The scheme will be introduced immediately in the districts of East Godavari, Nellore, Guntur, Tirunelveli, Mathurai, Coimbatore and South Kanara.

The other scheme is the introduction of an Agricultural "Extension Service." Under this scheme, an enlightened farmer with the necessary aptitude for the work will be selected for each firka for doing necessary propaganda and demonstration work among fellow ryots. He will be paid an honorarium of Rs. 50 per month and given the assistance of a demonstration maistry. The Government have ordered that ten enlightened ryots for this purpose should be selected and the scheme tried in ten firkas where these ryots reside.

Well Subsidy Scheme

The New Well Subsidy Scheme, 1948-49, which came to an end on 31st March 1949, was extended for another year from 1st April 1949. Time for payment of subsidy loans was allowed till 31st March 1950 and time for completion of wells till 30th September 1950. A subsidy of half the cost of construction subject to a maximum of Rs. 750 in rocky areas and Rs. 500 in ordinary localities was paid for construction of new wells. In the case of tanks (new and old) in South Kanara and Malabar, however, if the cost exceeded Rs. 1,000 the Collector could sanction an amount equal to half the cost up to a limit of Rs. 1,000 and the Board of Revenue up to a limit of Rs. 2,000. Only paddy or

Rice huller driven by electricity at the Nangavaram Society. The motor also runs a flour mill and disintegrator. In one year 400 members and 200 non-members used these facilities, and the Society earned Rs. 990.



millets were allowed to be cultivated under the subsidised wells for three years after their completion, failing which subsidies advanced were ordered to be summarily recovered.

There are over 33,000 irrigation tanks in this State, of which a little over 29,000 are Government tanks. As a result of siltation over a number of years, many of these tanks have lost a considerable proportion of their storage capacity. The Government sanctioned, in August 1949 a scheme for restoring the lost capacity of irrigation sources at an estimated cost of Rs. 10 crores spread over a period of five years from 1949-50. It has been estimated that the scheme might add about 1½ lakhs of tons to the State's food production.

The items of work to be taken up under the scheme are given below in the order of priority:

- (i) Repairs to non-delta river channels with direct ayacuts;
- (ii) Spring channels and kasams;
- (iii) Wells in ayacuts of tanks;
- (iv) Repairs to tanks depending on regular sources of supply like canals and rivers; and
- (v) Repairs to rain-fed tanks and tanks depending on the surplus of other tanks.

Tanks which are manifestly beyond repair will not be taken up under the scheme. On the other hand, Kudimaramath liability will not be insisted on during the period of the scheme.

proper condition under the time-honoured Kudimaramath System. The Government have now launched a drive to restore these works to their former efficiency and have authorised such works as are considered necessary for the proper maintenance and functioning of irrigation sources without rigid adherence to Kudimaramath for the duration of the period of Intensive Cultivation, viz., up to the end of 1951-52.

In the interests of speedy execution of irrigation schemes, the Government have delegated certain enhanced powers to the officers of the Public Works Department and also issued orders revising the procedure in regard to investigation and submission of schemes for sanction to Government.

As regards the future programme, a list of irrigation schemes has been drawn up for 1950-51 consisting of 91 schemes to be newly taken up for execution during the current year, at an estimated cost of about Rs. 1.17 crores, besides the continuance of about 133 schemes which were sanctioned in the previous years. As a result of execution of these 91 irrigation schemes, an additional area of 50,701 acres is expected to be brought under irrigation and an existing ayacut of 22,441 acres is to be provided with better irrigation facilities, with an anticipated yield of 22,594 tons of additional foodgrains.

Fisheries Schemes

The following are the Grow More Food Fisheries Schemes in operation in this State:

WELL SUBSIDY SCHEMES

Up to February 1950.

Name of Scheme.	Amount paid.	Number of wells subsidised.	Number of wells completed.	Additional acreage brought under irrigation.	Additional tonnage produced.
(1)	(2) Rs.	(3)	(4)	(5)	(6)
Old 1944 scheme ..	1,03,212	594	293	271	175
Accelerated Scheme—					
New Wells ..	1,85,43,990	61,558	50,402	65,776	33,399
Old Wells ..	47,37,882	30,779	26,995	30,180	15,350
Ceded Districts Modified Scheme—					
New Wells ..	9,50,000	1,960	842	1,290	581
Old Wells ..	1,47,277	530	321	616	332
New Well Subsidy Scheme, 1947-48	1,63,19,652	46,847	23,243	23,202	11,503
New Well Subsidy Scheme, 1948-49	1,67,02,386	29,183	4,932	6,448	3,021
New Well Subsidy Scheme, 1949-50	1,12,08,375	19,017	373	635	159
	5,41,12,774	190,458	107,401	128,418	64,560

Irrigation Schemes

Every effort is being made to sanction, execute and complete small irrigation schemes which are capable of producing quick results.

While examining the possibilities of extending new irrigation the needs of the old irrigation have not been lost sight of. Many of the irrigation sources were not being worked to maximum efficiency because of the negligence of the ryots to keep the tanks and supply channels in

(i) *Expansion of Deep Sea Fishing.*—This scheme was sanctioned in 1946 to expand the deep sea fishing operations in the State and the areas selected were all the important fishing centres on the East and West Coasts of the State. Deep sea fishing operations are conducted with nine power vessels and country boats. The following are the important deep sea fishing centres in the State:—

- (1) Tuticorin, (2) Pamban, (3) Nagapattinam,
- (4) Adirampatnam, (5) Sadras, (6) Kakinada,

- (7) Visakhapatnam, (8) Pudiappa, (9) Kozhikode,
- (10) Tanur, (11) Kadapuram, (12) Padne, (13) Ullal,
- (14) Malpe, (15) Kanchikodi.

Fishing by whiffing has been newly introduced at Tuticorin and it has produced very good results. As much as half a ton of valuable fish, Caranx, was taken on a single trip. This method of fishing is being extended to other deep-sea fishing centres like Kakinada, etc. Other methods like surface netting have also been introduced.

(ii) *Fish preservation and transport.*—This scheme was sanctioned to provide increased facilities for transport of fish from the shore to the consuming centres and for easy and wholesome preservation of fish by the establishment of 100 factories-cum-cold stores on the East and West Coast. It is also proposed to purchase motor vans and insulated cases for this purpose. It is proposed to establish ice-cum-cold stores at Westhill and Mangalore, and ice plants only at Tanur on the West Coast and Adirampatnam on the East Coast.

(iii) *Fish marketing.*—Fishermen were experiencing considerable difficulty in bringing fish to the market from Ennur, Tiruvonmiyur and Arambakkam villages near Madras. In order to provide quick transport, motor vans with sitting accommodation for about 24 persons and with racks for keeping about 80 baskets of fish are being run from each of the three centres.

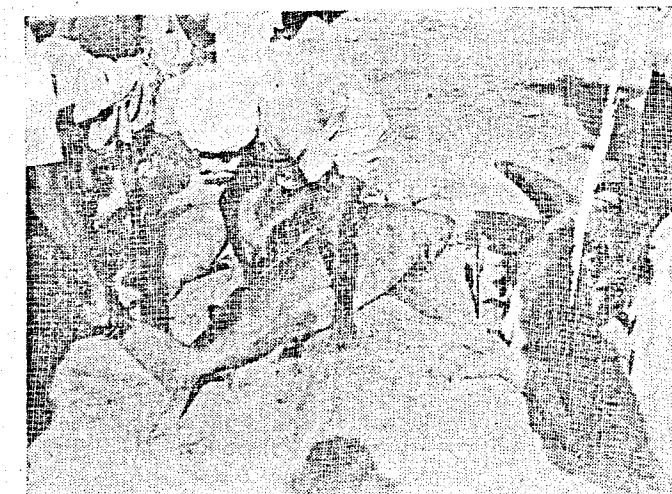
(iv) *Mirror carp fish farm at Ootacamund.*—The scheme was sanctioned in 1945 for stocking the lakes and ponds of the hilly regions with this fish with a view to increase the food supply and for the establishment of a fish farm for mirror carp at Ootacamund. The scheme is working successfully and fresh fish are daily marketed in Ootacamund. Seeds of Mirror Carp are also stocked in waters in plains, where they have flourished.

(v) *Rural fishery demonstration units.*—There are about six lakhs of acres of waterspread, besides seven lakhs of irrigation wells. An acre of waterspread is estimated to yield 500 lb. of fish, if properly stocked. In some of the demonstration tanks maintained by the Department yields of over 1,000 lb. per acre have been recorded. The rural fishery demonstration units have so far surveyed about two lakhs of acres of waterspreads. They are supplying seeds of fingerlings to private parties, making arrangements for intensified stocking of all provincialized waters under their control and locating fresh sources for seed collection.

(vi) *Mettur reservoir exploitation scheme.*—Mettur Reservoir, which is the fourth largest in the Commonwealth, has got an area of 60 square miles with an average depth of 50 feet. It has not been properly exploited for the last fifteen years. The annual yield has been estimated at 17,000 tons of food fish. The Government have sanctioned a scheme for the exploitation of the reservoir. The scheme, besides yielding adequate returns to Government, will also provide hundreds of tons of good fish to the people of Salem, Coimbatore and other neighbouring towns.

The following five new schemes are under the consideration of the Government:

- (1) Intensive seed collection and seed distribution for exploiting inland waters.
- (2) Improvement of indigenous fishing craft and tackle.
- (3) Supply of salt for fish-curing yards.



A haul of sharks on the West Coast

- (4) Supply of yarn and other essential articles to fishermen.
- (5) Provision of suitable quick transport facilities for fish trade.

Food Production Drive

(Continued from page 5)

over 35,430 villages in Madras State. Over fifty per cent of them own less than two acres of land and 30 per cent between two and five acres. We must help them to produce the maximum they can from the small piece of land they are cultivating. The farmer must be persuaded to learn and adopt better farming methods. Rs. 87 lakhs have been allotted in this year's Budget for loans under the Land Improvement Act and Agriculturists' Loans Act. There is provision for giving loans for the purchase of manures, seeds, agricultural implements and pumping installations.

Multi-purpose co-operative societies will shortly be set up in the firkas in seven districts to begin with. These societies will distribute to ryots essential agricultural requirements, do propaganda regarding green manure and rural compost, list out fallow lands and take steps to bring them under cultivation. Government have under consideration the introduction of Agricultural "Extension Service" on the American model. Under this scheme enlightened farmers with the necessary aptitude for work will be selected in a few districts for organizing demonstration plots, agricultural associations and exhibitions in certain selected firkas. Each such propagandist will be paid an honorarium of Rs. 50 per month and given the assistance of a demonstration maistry.

The Prime Minister and other great leaders have made broadcast appeals to the people to make food production a national effort on the scale of Mahatma Gandhi's unique campaign for winning Swaraj for India. The mass of the people in this country must feel that it is their work and give their wholehearted and willing co-operation.

—By courtesy A.I.R. Madras.

Hints to Farmers

Seed Bed Preparation: It is important that seed beds are prepared in time. If seed is not sown at the right time, the yield is low. The low yield accrues from the change in season and the susceptibility to crop diseases. Wheat that is sown late after the middle of November, very often suffers from rust.

Land preparation: It is most important that land is prepared with care. Fields must be levelled uniformly, as far as possible, in order to ensure proper distribution of water, whether by rain or by irrigation. However, if certain parts of a field are lower than others, it is necessary to construct a "dael", "mend" or small bund at the lower ends of the field to prevent the topsoil being washed away.

It is commonly seen that the yield of a crop varies greatly, in the same field. The tilth of the soil must be fine and all heavy clods must be broken up. To improve the tilth, tank earth, organic matter and compost must be added to the soil. This addition improves the moisture retaining capacity of the soil.

Weeding: A weed is a plant out of place. By the very strictest definition a poor quality of wheat in an improved wheatfield is a weed. Also barley and gram plants in a wheatfield are weeds. The farmer should be told that he must remove weeds from his fields. Perhaps it is expecting too much to ask him to remove inferior quality plants from his field, but he should most certainly remove all plants that do not belong to the same species as is being grown in a field. This process of weeding is important because

(a) Weeds multiply rapidly and if a single plant is allowed to run to seed, it will produce a large number of offspring. This will decrease the yield per capita and is most undesirable while harvesting.

(b) Weeds compete with the crop plants for moisture, space and fertility. As it is, our lands are depleted in fertility and if we allow weeds to further deplete the land, we will have to face serious consequences.

(c) Weeds harbour pests and diseases. Pest diseases that have no harbour find it convenient to settle down in weeds and from that pest they attack the rest of the healthy plants in the field. Very often the life cycle of a pest has a missing link, which keeps its incidence down; weeds provide that missing link and thus help to destroy food.

Plant protection: Plant protection is also important. Diseases take a heavy toll of plant life. Experts estimate that, on an average 20 per cent of the total production is lost. Therefore it is vital that the farmer should eradicate plants that are stricken with disease. If an agricultural officer is available, the farmer must notify him of an epidemic and seek his assistance in destroying the disease. It is vital that the sentiment of the farmer must be raised against all animals that destroy his crop. It is only when the farmer co-operates with us by destroying wild animals, that we can hope to reduce the great loss incurred.

Renovation of existing wells: It has been observed that a large number of wells and tanks have become derelict

in the absence of adequate repairs. A detailed census of such wells should be taken and the cultivator should be convinced, so that he may bring them under working conditions as soon as possible. The farmer must also be told that this extra supply of water will help to produce a larger quantity of food per acre.

Irrigation: It has been noticed that sometimes the cultivator is very careless with his water-supply. Water is a valuable commodity today and is urgently required by many cultivators, and yet there are some who allow it to run to waste.

Water that is handled poorly may flood fields, ditches and waste land. This waste may ruin crops and it certainly is most unhealthy. Cultivators must take greater care and be unselfish in watering their fields. They must remember that there are other cultivators, down the line, who will suffer for their carelessness.

Compost Manufacture Training for Village Teachers

The Government have sanctioned a scheme for training 40 elementary school teachers under local bodies in the preparation of compost in the two selected firkas, viz., Thirumangalam in Madhurai District, and Dendulur in West Godavari District.

The training will be given by the officers of the Agricultural Department for a period of ten days under the supervision and control of the respective District Agricultural Officers. During the period of training, each candidate will be paid an honorarium of Rs. 10. The period of training of the teachers will be treated as duty, and their salary for the period and their travelling allowance will be met by the District Boards. Their boarding charges will be met by the Government. The District Agricultural Officers will award a certificate to each candidate, after satisfactory completion of the course of his training.

If the teachers after their training manufacture compost either in their school premises or near their residences, the subsidy now given to the cultivators at the rate of Re. 1 for every ton (50 c.ft.) of compost prepared by them, will be paid to such teachers also. They will also be allowed to sell the compost to any ryot in their centres and realise the sale-proceeds.

Delegates to F.A.O.

The Director of Agriculture, Madras, and the Assistant Agricultural Engineer in-charge of the Contour Bunding Scheme, Madras, will represent Madras at the International Meeting on Land Utilisation proposed to be convened at Colombo by the Food and Agricultural Organisation of the United Nations in August 1950.

Cinchona Control Orders Cancelled

The Government of Madras have cancelled the Madras Cinchona Bark Control Order and the Plantation Order, 1945.

The Tamarind Tree

Tamarind (*Tamarindus indica*, Linn = *Leguminosae-Caesalpinoideas*; Tamil = *Puli*, Telugu = *Chinta-manu* and Malayalam = *Puli*) is a fairly big tree growing to a height of 80 feet and a girth of 25 feet. It is quite drought resistant and can thrive in any soil. It dislikes high altitudes and water logging or areas with high rainfall. It is not usually found about 2,000 feet above sea level. It is not very common to grow them in groves or topes but there are a large number of topes also. It is a very good avenue tree and as such it is very extensively used. Otherwise it is mostly a self-sown crop. It comes to flower in six to seven years. Flowering commences in May-June and fruits ripen during January-March in South India.

The fruits are harvested by men climbing on the trees and by shaking and jerking the heavily loaded branches with their hands and legs. Topmost branches which cannot be reached are shaken by means of long bamboo (*Sesbania grandiflora*) poles with a hook attached to the end. Pods are gathered by women and children in gunny sacks. The pods are dried in the sun for two or three days on a threshing floor. Later a few women are engaged to shell the pods by beating them with small sticks about three feet in length. When the shell which is the pericarp is removed, we get the pulp with the seeds inside and the fibre outside. This is also subjected to drying for two to three days.

Removing the Seeds

Afterwards women and children sit round with a flat stone in front of each one of them. They place the dried pulp on the stone slabs and beat it with another stone or a mallet or iron rod to expel the seeds. While doing this, they also remove the fibre completely and other particles of dust or pieces of shell. In some places the dried pulp is put in a mortar or on a stone floor and a wooden pestle is used to extract the seeds. Extraction of the seed is a very important item of work and on it depends the keeping quality of the finished product.

The seeds attract caterpillars which bore into the kernel and build nests. In order to prevent this, care is taken to see that the pulp is completely devoid of seeds. Finished product meant for the near-by market and cheap quality stuff will contain seeds to increase the weight.

When the dried pulp is completely free of shell, seed and fibre it is pressed into big cakes. It is usual to add one to two per cent of common salt as a preservative. It is packed in palmyra or date mats. Now it is ready for sale. When it is fresh the colour will be brown and with time it darkens or becomes black. The older the product better is the price given. In the East and the Far East salt is added to preserve the product and in the West Indies sugar or syrup is added for preservation.

Manifold Uses of Tree

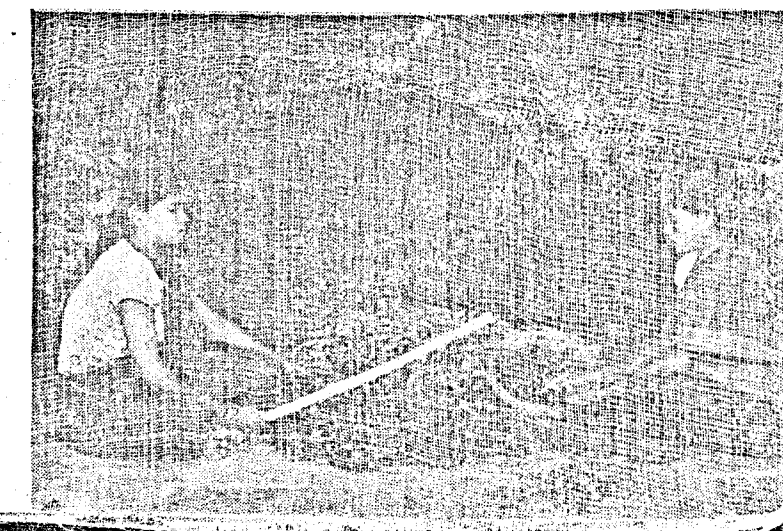
The other uses of the tamarind tree are manifold:

Bark: Used as an astringent tonic. Contains seven per cent tannin. Ink is prepared out of it, and teeth are stained with it.

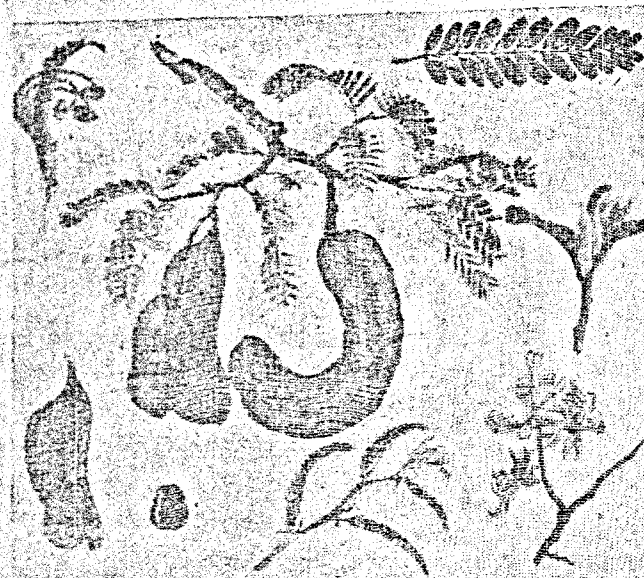


Beating the tamarind with a hammer prior to removing seeds

Shelling the pods: the pericarp (shell) is removed by beating and by hand



PARTS OF A TAMARIND TREE



Parts of a tamarind tree showing a branch with fruits, vegetative shoot, a leaf, a bunch of flowers and buds, a ripe pod with the shell (pericarp) removed and a seed

Comparative Analysis of Tamarind Seed.

(1)	Crude protein.	Ether extract.	Crude fibre.	Nit. free extract.	Total carbo-hydrate.	Total ash.	Cu O.	P ² O ⁵
(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Tamarind seed ..	15.40	3.89	8.17	69.25	77.43	3.28	0.43	0.52
Barley ..	11.50	1.06	5.39	78.84	84.23	3.21	0.25	0.65
Oats ..	10.07	6.55	12.71	65.88	78.59	4.79	0.16	0.93
Maize ..	10.55	3.30	2.20	82.10	84.30	1.85	0.07	0.91
Gram ..	19.63	4.84	7.50	65.40	72.90	2.63	0.43	0.98

Extracting the fibre and seed



Leaves: Tender leaves used for making *chutney* (pickle). Poulitice of leaves used in inflammatory swelling. Red dye is prepared. Used as a mordant also. Cleaning material for metal vessels.

Flowers: Used for *chutney*. Used in poultices, especially for the eye. Juice given internally for bleeding piles as mordant.

Fruits: Tender ones for *chutney*. Ripe pulp is refrigerant, digestive, carminative, antiscorbutic and laxative. Used for diseases caused by deranged bile. As a mordant it is particularly used when the dyes are bixa and tumeric. It is an excellent cleaning material for metals. Locally a cheap cool drink is prepared during hot summer by mixing the pulp with water and adding jaggery.

Shell: The fruit shell is used as an alkaline substance when it is ashed.

Seeds: Used as an astrigent. Poulitice to boils, for diarrhoea seeds without the testa and for dysentery testa alone. Testa contains tannin and is used as dye for pulp and paper industries. Wood cement is prepared by boiling pulverised seed into a paste with thin glue. Used for sizing country-made blankets and other handloom textiles. They are eaten by poor people after drying and soaking in water. Seeds can be fed to cattle. Animal nutrition trials were conducted and it was found that 50 per cent of the concentrates can be made up of tamarind seeds. They can be used as coins or pieces in indoor games.

Wood: It is yellowish white, heart wood dark purplish brown, weight 60-80 lb. per c.ft. It is very hard and used for wheels, mallet, planes, rice pounders (pestles). Excellent for turning purposes. As fuel it is very much priced because of its great heat giving property.

Analysis of Pulp (free from seeds).

	PER CENT.
Water ..	27.00
Insoluble ..	16.20
Potassium bi-tartrate ..	5.27
Tartaric acid ..	6.63
Citric acid ..	2.20

100 lb. of dry pods give—

	LB.
Cleaned pulp ..	44½
Seeds ..	28½
Shell ..	25
Fibre ..	2

Bonemeal and Bloodmeal Production

Richest Source of Nitrogen

Human urine, according to Sri Valunjkar, formed the richest source of nitrogenous manure. Nearly 95 per cent of the nitrogen consumed by the human beings passed out in the urine and if this was used to enrich the soil, the human beings would be returning to the land whatever nitrogen they were taking from it. It has been estimated that nearly 13 pounds of nitrogen could be acquired from a single individual's urine in the course of a year. The normal manure requirements for unirrigated soil was 20 lb. per acre. A single individual's urine would, therefore, be sufficient to manure more than half an acre. On the basis that the average extent of cultivated land per head in India was 546 to an acre, all the nitrogen needed by the cultivated lands in this country could be supplied by the human beings who depended upon the land for their food.

Sri Valunjkar has designed a drum for the collection of this "waste material" and preserving its valuable properties. An ordinary drum filled with any absorbent material such as soil, charcoal or sawdust is used, with a metal tube which takes the fluid to the bottom of the drum and prevents the mixing of its ammonium contents with air. The absorber, when saturated, is dried and used again and again with a view to increasing the nitrogen content of the medium. On an experiment it has been found that three saturations in charcoal gave as much as 7 per cent of nitrogen which is equal to the nitrogen content of oil cake.

Whatever nitrogen is left unused by plants is washed away into rivers, lakes or seas where it serves as the food for fish and other sea animals. This nitrogen could be recovered by pisciculture. Another good source of nitrogenous manure is therefore fish waste or fishmeal.

The potentialities of "waste materials" such as bone, blood, urine and fish waste as valuable sources of nitrogenous and phosphatic manure were explained by Sri G. B. Valunjkar, Honorary Bonemeal Adviser to the Government of India. Sri Valunjkar, who has been studying this problem for more than a decade as a member of the Gandhi Ashram at Wardha, visited Madras for analysing the local conditions in this regard and discussed his plans and suggestions with the Minister for Agriculture and officers of the Agricultural Department in the Government of Madras.

Sri Valunjkar said that bone was by far the richest source of phosphates, which were now being imported from abroad to supplement what was available in the Tiruchirapalli and Visakhapatnam Districts. Government were, therefore, keen on accelerating the production of bonemeal in this country. At present all the bonemeal factories were concentrated in big cities which meant large expenditure on transport. It has, therefore, been suggested that the State should resort to decentralization; small units should be established in a number of places which can collect and process the bones available in the surrounding areas. In order to aid these units the Government of India have designed a mobile unit for crushing bones. This consists of a small disintegrator mounted on a trailer drawn by a 25 H.P. tractor which would also supply motive power for the machine. This mobile plant was likely to cost nearly Rs. 10,000.

In the various States where this industry has been organized on the basis of small units, it has been found that the cost of production was fairly economical. The Madhya Pradesh State, for instance, had effected a contract at the rate of Rs. 142 per ton, Uttar Pradesh at Rs. 170 per ton and Madhya Bharat at Rs. 150 per ton including baggage. The big factories in Madras and Calcutta were demanding Rs. 250 to 280 per ton.

Bloodmeal and Meatmeal

Bloodmeal, Sri Valunjkar said, was another valuable organic manure which supplied nitrogen to the depleted soil. Blood contained 12 to 15 per cent of nitrogen which was readily available to the plant. It was calculated that if all the blood going waste in the slaughterhouses of India was collected, it would supply more than 20,000 tons of bloodmeal per year which would be sufficient to manure nearly 2½ lakhs of acres. The process is quite simple and does not involve any huge capital or intricate machinery. All the blood—plasma as well as clots—collected and heated with a little alum in cauldrons. The whole mass, after it coagulates, is dried and converted into a dusty powder which is ready for application to the soil.

Sri Valunjkar suggested that a considerable amount of meatmeal could be prepared from dead cattle which at present were being thrown away as waste except for the fact that the skins or hides were used by tanners. The carcasses were found to contain 11 to 12 per cent of nitrogen. These should be cut into small pieces and boiled efficiently and dried after the fat was skimmed out.

A mobile bone-crushing unit has been designed by the Government of India for accelerating the production of bonemeal. The plant consists of a disintegrator mounted on a trailer drawn by a 25 h.p. tractor which also supplies the motive power for the machine.



Depletion of Arable Land

Sri Valunjar estimated that the arable lands in the State of Madras were being depleted every year to the following extent in terms of chemicals:—

	TONS.
Nitrogen	886,000
Phosphorus	366,000
Potash	905,000

The requirements of this State to replenish this drain was 35 lakhs tons of ammonium sulphate. It has not been found possible to procure all this quantity from abroad. Sri Valunjar therefore said that the sources suggested by him could prove very valuable in substituting this supply, or, at any rate, in supplementing it.

On a rough estimate Sri Valunjar calculated that his scheme for the utilisation of waste material would, incidentally, provide employment for as many as 3½ lakhs of people including the organising staff.

Economic Reconstruction

Pointing out how the people could solve the economic problems of the nation if only they took a personal interest in it, Sri Valunjar said that even calamities could be converted into occasions for economic reconstruction. He suggested that if people cultivated the sentiment of planting trees on burial mounds, it would lead to afforestation on a large scale and would contribute to the prevention of soil erosion.

The Government of Madras propose to convene a meeting of social workers and concerned officials of this State with a view to considering the appointment of a committee, which would suggest steps to give a concrete shape to the proposals of Sri Valunjar. It is understood that persons already in the trade are also being invited for this meeting from all over the State.

Results of Grow More Food Scheme Reviewed

The results of the Grow More Food Schemes which are being executed by the Madras Government were disclosed at a Press Conference held at the Cabinet Room in the Secretariat on 6th May 1950. Mr. J. L. P. Roche-Victoria, Minister for Food, Sri A. B. Shetty, Minister for Agriculture, and Sri M. Bhaktavatsalam, Minister for Public Works, were present. The Commissioner of Food Production, the Director of Agriculture, the Chief Engineer for Irrigation, the Special Engineer for Food Production, the Director of Fisheries, Secretaries and Deputy Secretaries to Government, Food and Agriculture, Public Works, and Development Departments, the Economic Adviser to Government and the Director of Information and Publicity attended the Conference.

A comprehensive note revealing the results achieved by the various Departments of the Government in augmenting food production was presented and there was free exchange of views on a number of subjects including compost-manure, distribution of fertilisers, minor irrigation schemes, expansion of fishing operations, etc.

The various questions put by the Press representatives regarding the Government policy and programme and the details furnished in the Note, were answered by the Officers and Ministers concerned. It was explained how the Government were trying to cut short red-tape as far as possible and to co-ordinate the activities of the various departments and see that good results were produced within the shortest time. As one of the representatives remarked at the end of the Conference, it was the first big conference of Government officials and Pressmen and through them the people at large, the efforts taken by the Government in stepping up food production and clarify the doubts and misapprehensions that prevail among some people, with regard to the food production drive.

Water Rate Charges

The Government have re-examined the question of continuing the concessional rates of water-cess for Fasli 1359, under the Kattalai High Level Channel in the Tiruchirappalli District in the light of the representations received from the ayacutdars and of the remarks offered by the Board of Revenue. They see no reason to reconsider the orders already issued restoring the original rates of water-cess with effect from Fasli 1359.

The ayacuts under the Kattalai High Level Channel and the Cauvery-Mettur Project have always been treated on a par in the matter of levy of water-cess. As the original rates of water cess have already been restored under the Kattalai High Level Channel with effect from Fasli 1359, the Government have directed that the original rates of water-cess be restored in the Cauvery-Mettur Project area also with effect from Fasli 1359.

Animal Husbandry Department

The Government have sanctioned the constitution of a Special Committee to review the work that is being done in the Animal Husbandry Department and suggest the lines of future work.

Sri K. S. Nair, retired Joint Director of Animal Husbandry, will be the Chairman of the Committee. Sri T. Vinayaka Mudaliar, retired Livestock Development Officer, and Sri R. Swaminathan, retired Principal, Madras Veterinary College, will be the members.

The following items of work done by the Animal Husbandry Department will be reviewed by the Committee: (1) improvement of livestock (including breeding, feeding and general management) at Government and private farms and in rural areas; (2) combating of animal diseases; (3) Veterinary research work; (4) Veterinary education.

New Well Subsidy Scheme 1950-51

As the need to stimulate food production in the State is still urgent, the Government have sanctioned the extension of the New Well Subsidy scheme during 1950-51 also. The scheme applies to all the districts of the State except Madras. Subsidies will be advanced in all these districts for the construction of new wells. In the districts of South Kanara and Malabar not only new wells but also tanks (old and new) used for irrigation purposes will be eligible for subsidies.

The scheme offers a subsidy of half the cost for the sinking of new wells, subject to a maximum of Rs. 500 in ordinary areas and Rs. 750 in areas where the soil is rocky and the cost of sinking high.

In the case of tanks (new and old) in South Kanara and Malabar, however, if the cost exceeds Rs. 1,000 the Collector may sanction an amount equal to half the cost up to a limit of Rs. 1,000 and the Board of Revenue up to a limit of Rs. 2,000. The maximum subsidy will be only Rs. 2,000 in any case.

The amount of subsidy will be advanced as a takkavi loan in the first instance and will be treated as a subsidy only if the work is satisfactorily completed by 30th June 1951. No extension of time beyond this date will be given on any account. The last date for receipt of applications for subsidy loans is 30th June 1950. The distribution of subsidy loans will come to a stop on 31st October 1950. The maximum number of wells in any one village for which subsidies will be granted under the scheme to any individual is five. There is, however, no limit as far as co-operative societies or companies are concerned.

Prior approval of the site of the well or tank is necessary. The proposed well should have an ayacut of at least one acre. Only food crops may be grown on the land brought under irrigation for a period of six years. Food crops for this purpose shall mean only paddy, millets, cereals, grains, pulses, root crops, potatoes, sweet potatoes and plantains. The well dug must have not less than four feet of water in it all the year round and be capable of irrigating at least one acre. If a ryot to whom a subsidy is advanced as loan in the first instance takes no steps to sink a well or fails to sink a satisfactory well within the date prescribed the amount advanced together with all interest due thereon will be summarily recovered.

Time for Completing Subsidy Wells

Under the existing orders works subsidised under the New Well Subsidy Scheme, 1947-48, should have been commenced at least by the end of January 1949 and completed by 31st December 1949. It has been represented to Government that a large number of wells could not be completed under the scheme owing to paucity of labour between June and December last due to other agricultural operations and that the best season to undertake excavation of wells is from January to June. The Government have accordingly sanctioned an extension of time for completion of wells under the scheme till 30th June 1950 and for commencement of works till 31st December 1949. The Government desire to make it clear that these dates are final and that no extension beyond these dates will be granted.

Subsidy Loans for Wells

Under the existing orders, grantees under the New Well Subsidy Scheme 1949-50 have been allowed time till 30th September 1950, for the completion of the well or tank works. Payment of subsidy loans under this scheme came to an end on 31st March 1950. As the purpose of the scheme is to accelerate the production of food in the shortest possible time, the Government have decided that time should not be allowed beyond 30th September 1950 for completion of wells subsidised under the scheme. They accordingly desire to impress on the grantees that they should endeavour to complete the wells for which they have already obtained subsidies under this scheme before 30th September 1950, failing which subsidies advanced will be summarily recovered.

Road for Temple Sanctioned

The Government have sanctioned, under certain conditions, the construction of a 9½ mile road, connecting Thalabetta with Wandeswarammalai temple in the Ramapuram Range of Kollegal Division.

Engineering Exhibition in New Delhi

The Government of Madras have decided to take part in and send exhibits to the Engineering Exhibition to be held in New Delhi in January 1951 in connexion with the fourth plenary session of the International Commission on Large Dams, Meetings of the International Association of Hydraulic Structures Research and the World Power Conference.

BUMPER FISHING

Recently the Assistant Director of Fisheries, Tuticorin, went on board the M.F.V. *Tuticorin* accompanied by the Superintendent of the Fisheries Technological Institute and the Research Assistant on a fishing expedition. The vessel left the shores at 3 a.m. After clearing Hare Island the vessel was allowed to proceed fast towards Rameswaram Pagoda with ten long lines trailing from the stern of the vessel with Clupid fish as baits attached to the hooks. Within three hours 10 large sized Caranx, Seers and Tunnies each weighing about fifteen lb. were caught in the hooks. The officers and the crew all had to handle the lines in hauling in the great catches, when the vessel was steaming through a large shoal of fishes. On the same day they were also able to catch two huge large sharks by means of revolving hooks baited with beef. On the whole 1,061 lb. of fish were caught on that single day which brought a revenue of nearly Rs. 250. This excludes the cost of shark livers, which was retained in the office for extracting oil to be sent to the Government Oil Factory, Kozhikode.

Our cover page picture in this issue illustrates one mode of rural fishing in shallow waters, with the aid of wicker boxes.

Gandhian Ideals: Self-Sacrifice

By Dr. T. S. S. RAJAN, Minister for Health

When I readily agreed to accept the invitation of All-India Radio, to speak on Self-sacrifice, in the series of talks on Gandhian Ideals, it was to place before listeners certain impressions which I have been holding on the subject, as applicable to Gandhiji, and which I feel have not possible been sufficiently appreciated in India, as well as abroad.

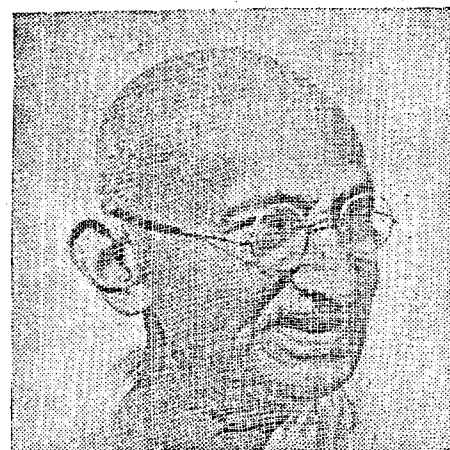
The dictionary explains self-sacrifice as an art of yielding up one's life or interests to others. To talk of self-sacrifice as one of the Gandhian Ideals may give the impression that Gandhiji had as his ideal or goal, the yielding up of his life and interests to others, and that one who intends to follow Gandhian Ideals must, as a positive act, necessarily yield up his life and interests to others. I would straightaway say, that, to have such an ideal, savours of intellectual conceit, of which I, as one of those who have had the privilege of moving with him fairly closely, know Gandhiji had none.

Service of Humanity

It is quite true Gandhiji lived his life and died in the service of humanity at large, and of this country in particular. But I venture to suggest that he neither kept self-sacrifice as his ideal, nor set out to sacrifice himself for the sake of others. He had an essential humility and simplicity which precluded any such intention. All he did was to have before him constantly the amelioration of the conditions of living of the people, peace not only in this country, but in the world as a whole, and the liberation of India, as well as other subject peoples.

If any self-sacrifice was involved in his life and conduct, it was only a means to an end, a means he did not ever think of, a means unknown to his consciousness, characterised by simplicity and love. To assist him in his endeavour, to better the lot of the weak and down-trodden, he necessarily had to learn what the living conditions of the masses were. He was a genuine seeker after Truth, and mere theoretical knowledge, visual observation, or second-hand information, was not enough for him. Moreover, mere seeing may be believing in some cases, but will only furnish a superficial impression of the conditions of the people. He, however, desired to have full, complete and first-hand knowledge, and personally to appreciate what the masses felt and did. He could achieve his desire only by living and feeling as they did, and by sharing their joys and sorrows.

This naturally involved his breaking away from his social and economic status and position, as the modern and westernised world know them. He deliberately chose to live his life as one of the many poor in India, without feeling he was sacrificing anything, without any desire to show himself off as a social reformer, and without any intention of making a martyr of himself. Therein lay his greatness, and his capacity for going to the root of any problem, with a humility and sincerity all his own.



Bapu and the Masses

But in the process of such living among, and as one of the masses, partly unconsciously, and in some matters deliberately, he set an example to the rest, to follow the path of cleaner, better and happier living, to make the best of circumstances and to get the most out of life. And he seemed to like this kind of life, as it obviously gave him happiness, and enabled him to know the heart of the masses and feel as they did. This, in turn, helped him to assist the country in getting what it wanted, freedom and the happiness that only freedom can give. In short, it is my considered opinion that he did not sacrifice himself but merely lived a rational life, just doing his duty to God, to his country, to his fellow-men and also to himself. He lived a life which every Hindu is enjoined to do by the Shastras, and the only difference between him and others was that he did so successfully, without deviating from the straight path.

Two Glorious Tributes

Pandit Jawaharlal Nehru has rightly pointed out that :

"According to the teachings of the Gita, Gandhiji laboured dispassionately, without attachment to results, and so results came to him. . . . He had learnt the art of living, though the way of life he had adopted, was very different from the world's way. The pursuit of truth and goodness, leads, among other things, to this artistry in life."

Any self-sacrifice in his life was unintentional and only incidental to the Hindu, or rather, Indian way of life. But an element of self-sacrifice is available in anyone's life, whether according to Hindu Dharma or Christian doctrine or Islamic Faith.

An English journalist, Mr. George Slocombe, with a wide experience of the world, said of Gandhiji :

"I have never met any man more utterly honest, more transparently sincere, less given to egotism, self-conscious pride, opportunism and ambition."

It was these characteristics which enabled Gandhiji to attempt to mould India, in Pandit Nehru's words, "into a people with self-respect and self-reliance, resisting tyranny, and capable of united action and sacrifice for a larger cause." Again, to quote Pandit Jawaharlal Nehru : "Gandhiji demanded work and labour and sacrifice from

Government Grants for Harijan Hostels

There has been some misconception in the matter of recognition and grant of Government subsidy to hostels run for the benefit of pupils of eligible and backward communities and the Government desire to make the position clear.

Lump sum boarding grants are given to hostels run by the Harijan Sevak Sangh and by private individuals for the benefit of boys and girls belonging to the eligible communities and to the backward classes who take up approved courses of study in recognised educational institutions. No such hostel will be admitted to the Government grant, unless it is recognised by the Director of Harijan Welfare. For the purpose of recognition the management of the hostel should submit an application to the Director of Harijan Welfare by 31st August through the Collector of the district concerned with full and necessary particulars required by the Harijan Welfare Department. Necessary application forms may be obtained from the Harijan Welfare Department, Madras, in proper time. The grant of recognition to these hostels will normally be limited to those which have at least ten eligible boarders in them.

In the case of hostels already admitted to Government subsidy, further grants will be sanctioned for the additional boarders newly admitted into them, if the managements of these hostels make fresh applications to the Director of Harijan Welfare through the Collectors of the districts concerned before 31st August in the prescribed form for grants for the increased number of boarders.

The additional boarding grants will normally be limited to twenty per cent of the strength of the hostel in the previous year in regard to boy's hostels. In the case of the girls' hostels, however, grants may be given for all pupils who are not in receipt of grants.

Declaration for Acquiring Domicile

Under Section 11 of the Indian Succession Act, 1925 (Central Act XXXIX of 1925), any person may acquire a domicile in a State by making and depositing in the office appointed for the purpose, a declaration in writing under his hand of his desire to acquire such domicile provided that he has been resident in the State for one year immediately preceding the time of his making such declaration. The office of the Secretary to the Government of Madras in the Home Department was appointed for that purpose. His Excellency the Governor of Madras has since appointed the office of the Secretary to the Government of Madras in the Legal Department for the purpose, in the place of the office of the Home Secretary. All declarations under Section 11 of the above Act should therefore be made and deposited hereafter in the office of the Secretary to the Government of Madras in the Legal Department.

Advisory Board to Review Detention Cases

The Government of Madras have constituted an Advisory Board for reviewing the cases of persons detained under the Preventive Detention Act, 1950. The Hon'ble Sri Justice P. Satyanarayana Rao, High Court, Madras, and Sri K. Rajah Ayyar, Advocate-General, Madras, are members of the Committee.

Study of Languages in Secondary Schools

The Government have decided that henceforth only three languages should be studied during the secondary school stage.

This action has been taken after considering the recommendations of the Expert Committee constituted in October 1949, to go into the question of the study of Hindi and other languages under the reorganised scheme of secondary education.

In respect of the first language it has been decided that instead of the regional language being the compulsory first language, any Indian language whether it be regional language, or mother tongue, or classical language, or any other language may be studied as first language from Forms I to VI for six periods a week.

It has been decided that Hindi should be studied as second language in Forms I to VI, the language being taught conversationally in Form I and the script in Form II. The script for the teaching of the language will be Devanagari.

English should be studied as third language for six periods a week from Forms I to VI as at present.

The medium of instruction will be the regional language except in case of linguistic minorities whose mother tongue is one other than the regional language and for whom special provision has already been made.

These changes in the study of languages will be introduced from the school year 1950-51 commencing from Form I and given effect to progressively every year up to Form VI. It is left to the discretion of the Director of Public Instruction to decide whether the students now in their intermediate stages, viz., students in Forms II to VI, should be permitted to follow the existing system or the new system.

Apprentice Course

The Government of Madras have approved subject to certain conditions a scheme which will enable students of any of the Engineering Colleges in the Madras State to work on Public Works Department works under execution or investigation and also in Public Works Workshop laboratories during their vacation, so that they may study the day-to-day working of the Department, and acquire a knowledge of practical side of Engineering.

The number of students to be taken shall be fixed by the officer in charge of works, workshops, or laboratories as the case may be according to the departmental convenience.

PUBLIC HEALTH

modern lines; the study of hyper-endemic and healthy areas, and generally to explain the causes for the prevalence of malaria in India.

5. To undertake clinical work on malaria, including treatment. To study serum reactions and allied aids to diagnosis. To study relapse problems, effects of new drugs, etc.

6. To assist affiliated research (e.g., kala-azar, filariasis, sandfly fever, dengue, stegomyia work) by identification of material, provision of trained staff and subordinate personnel.

7. To teach and train officers and others in practical malaria work.

8. To publish scientific results, useful guides and bulletins.

9. To conduct and supervise anti-malaria operations in Delhi urban and rural areas and in coalfields.

10. To investigate and advise the Government of India with regard to insecticides, aerosol dispensers and other spraying equipment necessary for the prevention of yellow fever in India.

A large number of exhibits illustrating different aspects of the varied subjects relating to the prevalence and control of malaria, viz., models of mosquitoes, anti-malaria apparatus, pathological specimens, epidemiological graphs, photographs, etc., for the instruction of both medical men and others are placed in the spacious museum.

A hatchery of gambusia, the larvæ eating fish, is maintained at the Institute, and supplies are made to workers in different parts of India as and when required.

Literature on malaria and allied subjects is being maintained and constantly added to. Foreign and Indian journals dealing mostly with tropical diseases are received, and reprints of papers on malaria appearing in other journals are obtained by exchange or otherwise. Important reports on work done on malaria in India and elsewhere are also available. The library now provides all facilities for the study of the subject not only to the staff and students of the Institute but also to other malaria workers in the country. Requests for references from outside can be met in a comprehensive manner.

Instructional Courses

A six-week course in Malariology for medical officers was provided by the Malaria Institute of India up to the outbreak of World War II. This has been revived. The course is designed for training in the basic principles and advanced aspects of malariology. Twenty-six medical officers, nominated by the Public Health Departments of the Provinces, Defence Services, Railways, Indian States, etc., are trained at a time. The subjects taught include entomology and bionomics relating to mosquitoes, parasitology, pathology and epidemiology of malaria, methods of investigating and measuring the extent of malaria incidence and modern principles and practice of control measures.

Each course consists of about forty lectures and 120 hours of practical instruction both in the laboratory and in the field. The officers of the Institute deliver lectures and arrange laboratory and field demonstrations. In recent years the material obtained from the study of monkey and bird malaria has been found most useful for instructional purposes.

A practical, written and *viva voce* examination is held at the end of each course and certificates are awarded to the successful candidates. Many of the students who have done the course are doing valuable work in the different parts of India and are able to train subordinate personnel in field methods. Short course in malariology with special reference to engineering problems for engineers from the various provinces and local bodies have been conducted since 1940.

The *Indian Journal of Malariology* is published quarterly under the editorship of the Director of the Institute. A number of Malaria Bulletins, forming part of the Health Bulletin series of the Government of India, are being produced by various members of the staff.

(i) Three different species of malaria parasites in monkeys were isolated and described, and various immunological, biochemical and pathological investigations have since been made in connection with monkey malaria. These strains have also been used for testing a number of indigenous and synthetic anti-malarial drugs.

The isolation of the monkey malaria strains has enabled the malaria research worker to overcome the inherent difficulty of using in the laboratory human material for detailed parasitological, immunological and pathological studies, and has provided an instrument which is being used more and more all the world over for experimental work including therapeutics of malaria.

(ii) Researches have been directed towards the testing and development of insecticides, larvicides and repellents as also towards the improvement of spraying equipment of different types.

(iii) Systematic investigations have been carried out on mosquitoes and other insects of medical importance. The work of Mr. Christopher on Indian anophelines, of Mr. Marraud on culicines, of Mr. Puri on anopheline larvæ and of Mr. Sinton on phlebotomus have now become classic in literature on medical entomology.

(iv) Other researches include—

(a) Therapeutic value of a number of synthetic and indigenous anti-malarial drugs.

(b) Determination of the source of mosquito blood meals.

(c) Mosquito bionomics.

(d) Naturalistic methods of malaria control.

(e) Maintenance of strains of bird malaria and mosquito colonies.

(v) Extensive field work has established that indoor residual spraying with D.D.T. preparation is the most effective method of malaria control under Indian conditions. This control measure, formerly an uneconomical proposition, has now placed in the hands of the malariologist a powerful weapon to combat the disease in the rural communities.

(vi) A number of successful therapeutic trials with paludrine were conducted in 1946 in various parts of India under the direction of the Malaria Institute of India by Special arrangement with the Medical Research Council in England.

(vii) A large-scale field experiment to test the prophylactic value of paludrine was undertaken in a hyper-endemic tea estate. One thousand seven hundred and fifty individuals took

PUBLIC HEALTH

the prophylactic treatment. No case of malaria with the exception of one occurred among the individuals who had received the prophylactic treatment regularly throughout the season without missing a single dose. The total sickness of the estate was reduced to negligible proportions.

The programme of malaria control was broadly divided into temporary or recurring and permanent or non-recurring measures.

Recurrent control measures consisted mainly of systematic destruction of adult mosquitoes and their aquatic forms by the use of insecticides and larvicides. Additional measures included the removal of vegetation in tanks, the clean-weeding of water

channels, removal of silt from storm-water drains, the filling up and drainage of minor depressions and other methods of dealing with various breeding places of mosquitoes.

During the war years Indian Army anti-malaria units, under the command of officers specially trained at the Malaria Institute of India, also assisted in these operations.

There is a steady and remarkable decrease in the incidence of the disease. The year 1948 has truly been a testing time for the anti-malaria organization in Delhi. The normal rainfall exceeded the average by at least 60 per cent and wide areas within urban units were flooded and the breeding of mosquitoes must therefore have been facilitated

to a considerable extent. In the circumstances a recurrence of conditions closely approximating to those which took place in 1942 might reasonably have been expected. On the other hand it will be seen that the incidence of the disease in 1948 has been kept abnormally low.

The Malaria Institute of India was called upon in 1944 to undertake the task of organizing malaria control measures in the coalfields throughout India. At first three military anti-malaria units worked in the most important coalfields in India. The reduction in the spleen rates is significant, especially when it is taken into consideration that the control measures have been in operation only for a relatively short period.

Unqualified Medical Practitioners

Several instances have been brought to the notice of the Government where unqualified persons practising medicine have added to their names titles, descriptions, letters or abbreviations which imply that they hold degrees, diplomas, licences or certificates as their qualifications to practise medicine. In the Press Communiqué No. 30, dated 3rd May 1947, the Government have already explained the relevant provisions in the Indian Medical Degrees Act, 1916, as amended by the Madras Amendment Act of 1940 and conveyed a warning of the penalties for violating the provisions of the Act. The Medical profession has also been warned that in case they engage unqualified persons as their Assistants, they will be offending the code of medical ethics and will have to face the risk of removal of their names from the Madras Medical Register.

Some practitioners of Indigenous systems of medicine are now reported to be committing the offence of using bogus titles. Such practitioners are now classified into two groups. Those who have obtained the L.I.M. qualification are permitted to get themselves registered in Class 'A' of the Register of Practitioners of Indigenous Medicine, while certain other practitioners have been registered in Class

'B' of the Register. The Government have decided that 'A' class practitioners of Indigenous Systems of Medicine may style themselves as doctors and prefix the title "Dr." provided they affix their qualification to their names and indicate that they

are registered practitioners of Indigenous Medicine. "B" class practitioners should not under any circumstances prefix the title "Dr." to their names but they may prefix the words "Hakim" or "Vaidya" to their names according to the system they practice and indicate clearly that they are practitioners of Indigenous Medicine. Those who contravene these instructions are liable to prosecution.

Ahimsa (harmlessness or non-violence) means the largest love. It is the supreme law. By it alone can mankind be saved.

MAHATMAJI

Standards for Drugs

The Government of Madras have notified that the standards, laid down in the British Pharmacopoeia, 1948, will be rigidly enforced from March 1, 1950, in respect of drugs, manufactured in the Province for sale.

(Continued from page 7)

COMPOSITION OF FOOD STUFFS

	Cereals.	Water.	Protein.	Fat.	Calories per 100 gms.
Cholam		11.9	10.4	1.9	355
Maize (tender)		79.4	4.3	0.5	83
Do. (dry)		14.9	11.1	3.6	342
Do. flour		11.5	0.6	0.5	355
Ragi		13.1	7.1	1.3	345
Rice, raw (home pounded)		12.2	8.5	0.6	351
Do. parboiled (home pounded) ...		12.6	8.5	0.6	349

Planning and Execution of Projects

In the course of his speech moving Demand No. VIII (Irrigation), Sri M. Bhakthavatsalam, Minister for Public Works, reviewed in detail the progress of planning and execution of irrigation projects in Madras State. Extracts from his speech are given below.

The effective total expenditure on irrigation for 1950-51 under all the relevant demands, is about Rs. 712 lakhs. Our irrigation expenditure had been steadily increasing after the present Government assumed office in 1946. It was Rs. 97 lakhs for 1945-46, Rs. 155 lakhs for 1946-47, Rs. 254 lakhs for 1947-48, Rs. 396 lakhs for 1948-49, Rs. 597 lakhs for the current year and is estimated to be Rs. 712 lakhs for the ensuing year. Even after making due allowance for the depreciation of the Rupee, the tempo of work in the Department has increased three or four fold during the last three years.

Our programme of irrigation development may be broadly divided into three parts. The first part which is the least ambitious of the three, is a short-term programme to execute about 300 small irrigation schemes, at an aggregate cost of about Rs. 6 to 7 crores, in about five years. This Five-year Plan was inaugurated in 1947-48 and therefore we are now in its third year. We have up to this date, sanctioned 184 schemes from this programme, at an estimated cost of Rs. 250 lakhs and they are expected to benefit about 1½ lakhs of acres. In selecting schemes under this programme, it has been our endeavour to spread the benefit out to dry tracts, as far as practicable.

Short-term Programme Schemes

Twenty-four of the sanctioned schemes costing Rs. 50 lakhs are in Rayalaseema; eighty-seven schemes costing Rs. 90 lakhs in the Circars, where special attention has been paid to the uplands of Guntur and Nellore; sixty-four schemes costing Rs. 90 lakhs in the Tamil districts with weightage to the dry districts of South Arcot, Salem, Chingleput and Tiruchi; four schemes costing Rs. 12 lakhs in Malabar

Gorgeyapuram tank in Kurnool taluk is designed to supply water for 140 acres of wet ayacut. The cost of forming the tank was Rs. 1,70,000



and five schemes costing Rs. 8 lakhs in South Kanara. The Tigaleru, Kolimalgulavagu and Rayalacheruvu Schemes in Kurnool, the Kanchalamma tank in Cuddapah, the Pennar-Kumudavathi in Anantapur, the Madrikatta tank in Bellary, the Yerricalva in Chittoor, the Ramanaidu-palli, Upputer and Karedu Schemes in Nellore, the Peddakandluru, Peddapalli and Bhugubanda Schemes in Guntur, the Ponnar and Kaliveli Swamp Schemes in South Arcot, the Badathalav and Jeddarpalayam Schemes for Salem, the Sivalaperri tank for Tirunelveli, the Chéyyar Anicut and Neman tank for Chingleput, the Gayatriputzha and Vandithode Anicut for Malabar and the Shriyar Anicut for South Kanara are just a few of the schemes already sanctioned.

All the sanctioned schemes are now under execution; a few of them have been completed and an amount of Rs. 70 lakhs has already been spent on them. Adequate provision has been made in the Budget for completing these works in quick time. Investigation is now progressing briskly on another 200 such small schemes. Additions and alterations are being made to that list, as the field staff conducts investigations and brings to notice new schemes. We are sanctioning these new schemes at the rate of about ten per month and at the present rate of progress, it looks quite possible to reach the target of 300 schemes in five years. When these 300 schemes are completed, we would have brought under irrigation about 300,000 acres of waste land, which is not altogether an insignificant contribution to the Grow More Food drive.

Expenditure on this kind of work is only a small portion of our irrigation outlay. No doubt, many of these schemes are unremunerative, i.e., they do not promise a direct return, equivalent to the interest on the outlay; but in respect of this Programme, the present Government have

departed from the orthodox theory of productivity, which had held sway in the past. A good portion of this outlay, especially those on the smaller schemes, is being met from current revenues and therefore, we do not pass down to our children a heavy load of debts on this Programme. Besides, we are getting a subsidy from the Government of India on these works and therefore we may hope to continue this useful programme beyond the five-year period.

Medium-sized Schemes

The small works covered by this Programme do bring in some satisfaction to our rural folk who have, for several decades agitated for them; but for a badly deficit State like ours, a programme of this limited magnitude cannot by itself bring in substantial relief. If we must attain self-sufficiency in our times, we must put to productive use the large volumes of water which are running to waste in our river systems and this takes me to the second part of our irrigation programme. Our Engineers are now investigating our minor river valleys and they have found that reservoirs capable of irrigating several thousands of acres can be constructed on most of them. A list of about 25 medium-sized projects has been drawn up, including important drainage schemes for our deltas and detailed investigations are now proceeding on a good many of them.

We have already sanctioned six of these projects at an estimated cost of Rs. 17 crores and works are now well in progress on them. The Lower Bhavani Project in Coimbatore District, estimated to cost Rs. 879 lakhs, is the most important of them. An amount of Rs. 82 lakhs has been estimated to be spent on it this year and a provision of Rs. 103 lakhs, is now being made for expenditure next year under Demand XXXV. Considering that this Project was sanctioned only towards the end of 1947, the progress so far made is heartening and we may reasonably hope that it will be completed by the end of 1952, as scheduled, to bring under irrigation about 200,000 acres of land in Gobi, Bhavani, Erode and Dharapuram Taluks of Coimbatore District.

Malampuzha Project

The Malampuzha Project for Malabar sanctioned in 1949, at an estimated cost of Rs. 380 lakhs, is designed to benefit about 40,000 acres of land in Palghat Taluk. Preliminary works such as land acquisition, construction of camp buildings and collection of materials are making rapid progress and the work on the dam has commenced. An expenditure of Rs. 14 lakhs has been incurred this year and an amount of Rs. 26 lakhs has been provided for the coming year. Work has also commenced on the Mettur Canals Scheme, sanctioned in 1949, at an estimated cost of Rs. 245 lakhs, for the benefit of 45,000 acres in Salem and Coimbatore Districts. An amount of Rs. 40 lakhs has been set apart for this work in the Budget.

Rallapad Reservoir

The Rallapad reservoir scheme in Nellore, sanctioned in 1948 at an estimated cost of Rs. 53 lakhs, has also been started and an expenditure of about Rs. 6 lakhs incurred. The works will be continued, for which a provision of Rs. 6.72 lakhs is made in the Budget. In order to improve the outturn in the Krishna and Cauvery Deltas, we have sanctioned two major drainage schemes, one for Krishna, costing Rs. 116 lakhs and the other for Cauvery,

costing Rs. 30 lakhs. We have spent Rs. 23 lakhs this year and provided Rs. 25 lakhs for next year on the Krishna drainage scheme. Similarly we have spent Rs. 12 lakhs this year and provided for Rs. 10 lakhs for next year, on the Cauvery drainage scheme.

Upper Pennar

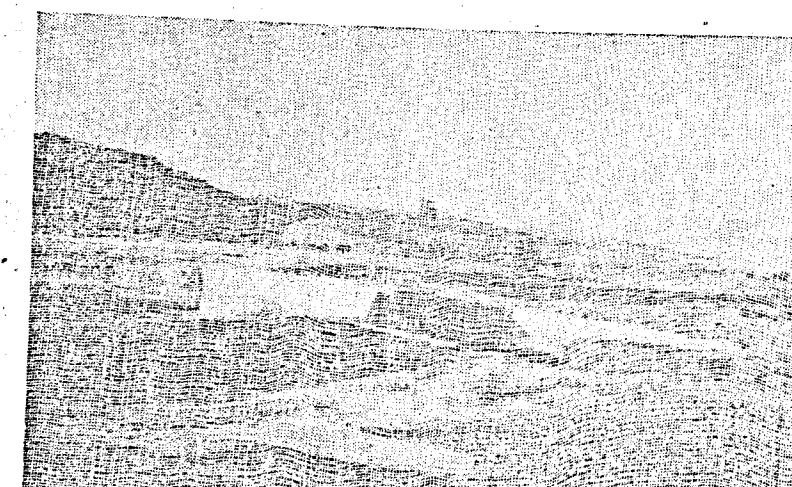
Of the other schemes in this midterm programme, we have already laid the foundation of the Upper Pennar Project in Anantapur District, estimated at Rs. 89 lakhs. This reservoir will submerge a small area in Mysore for which the formal concurrence of that Government is necessary and we are hoping to obtain it without delay. This project is expected to benefit about 8,000 acres of land in the famine-stricken areas of Anantapur District and we shall start work immediately. The Bhairavaitippa Project for Bellary, estimated to cost Rs. 82 lakhs, is also in the last stages of scrutiny. On this scheme also an agreement with Mysore is necessary, because the Hagari is a common stream and we have already settled the main points of dispute with Mysore. This Project, expected to benefit about 8,000 acres of land in a backward area, will also come up for sanction shortly.

Kattalai and Pullambadi Canals

Plans and estimates are ready for the Kattalai and Pullambadi Canal Scheme of Tiruchi, at estimated costs of Rs. 111 and 84 lakhs, respectively and the question of sanctioning these schemes is now engaging the attention of the Government. The Coringa Island Scheme costing Rs. 21 lakhs for Godavari, the Arniar Project costing Rs. 110 lakhs for Chingleput, and the Ateru Project costing Rs. 35 lakhs for Nellore, are also getting ready and can be sanctioned during the year. Investigation is nearing completion on the Vaigai Scheme for Mathurai costing Rs. 250 lakhs, the Manimuthar Scheme for Tirunelveli costing Rs. 200 lakhs, the Sathanur Scheme for North and South Arcots costing Rs. 200 lakhs and the Kunnikarpuzha and Walayar Schemes for Malabar costing Rs. 260 and 99 lakhs, respectively.

Detailed investigation has been ordered for the Vamsadhara Project for Visakhapatnam and the Amaravathi

Zurru anicut near Banganapalle. The scheme costs Rs. 1.4 lakhs and is expected to irrigate 400 acres of wet crop, yielding 200 tons of foodgrains



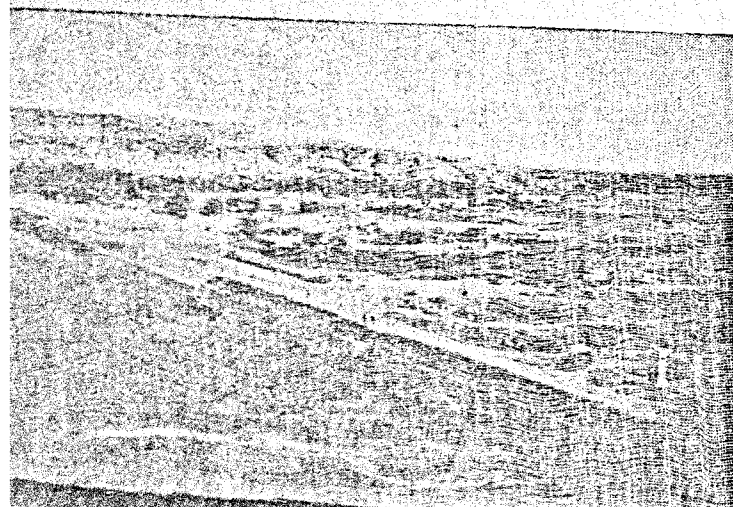
Project for Coimbatore and special staff is being deputed for that purpose. The projects yet to be sanctioned from out of this midterm programme may cost about Rs. 30 crores; but since this expenditure must necessarily be spread over a few years, owing to inevitable delays in execution, the successful completion of this programme will be well within our means.

River Valley Projects

The third and most ambitious part of our irrigation programme comprises the multi-purpose projects for the development of the Godavari, Krishna and Tungabhadra river valleys. The cost of this programme will easily run into two or three hundred crores of rupees. We cannot meet this enormous outlay without the active assistance of the Union Government and therefore we do not control the destiny of these projects as much as we should desire. Even so, we have not been merely marking time awaiting the bounty of the Central Government, because the Tungabhadra Project, no doubt the smallest of the three, is already well within our grip. This is a joint endeavour with Hyderabad and is expected to bring under irrigation, in its first stage, about 300,000 acres of land in Bellary and Kurnool districts and also to develop about 35,000 K.Ws. of power. Our share of the cost is about Rs. 17 crores on the irrigation side and about Rs. 5 crores on the electricity side, making up a total of Rs. 25 crores.

We had very many difficulties with Hyderabad at the initial stages; but they have all been resolved in conferences at the highest level and the work is now progressing rapidly. An expenditure of Rs. 234 lakhs is being incurred this year, taking the total investment to about Rs. 600 lakhs. A provision of Rs. 287 lakhs is being made for expenditure next year and at the present rate of progress, we may hope that the reservoir and the bulk of the canal works, will be completed by the end of 1952, as originally scheduled. The waters of the Tungabhadra will not be exhausted by the Low Level Canal Scheme, now under execution. Extra capacity is being provided in the reservoir even now for taking out a High Level Canal at a later stage, for the development of more areas in the Ceded Districts.

The Paleru reservoir of Owe (Kurnool District) to augment supply to an ayacut of 450 acres. This scheme will cost Rs. 4.3 lakhs and is expected to yield 200 tons of foodgrains



Krishna and Pennar Valleys

The investigation for the development of the Krishna and the Pennar valleys, is progressing satisfactorily. In broad outlines, the Krishna-Pennar Project consists of a reservoir of the size of Mettur on the Krishna at Siddeswaram below Kurnool, from which a canal will be taken to the Pennar through a cutting in the intervening low range of hills. A reservoir with a capacity of about three or four times that of Mettur will be put up on the Pennar at Someswaram. From this reservoir, two canals will be taken off, one to the north through the uplands of Nellore to the Gundlakamma in Guntur District. Another canal will be taken southwards through Chingleput to the Vellar in South Arcot. From the Krishna Reservoir, yet another canal will be taken towards the south, to augment the supplies of the Gandikota Reservoir, for use in Cuddapah District.

When the project is completed, it will irrigate about three million acres in the districts of Cuddapah, Kurnool, Nellore, Chingleput, South Arcot, Chittoor and Guntur. A second crop can be raised on the existing Krishna and Nellore Deltas. Large blocks of power will be generated from the discharges from the two reservoirs. The City of Madras will be commanded by the South Main Canal and therefore, the water problems of the City will be solved for ever. The cost of the project has not been computed; but it may be of the order of Rs. 100 crores.

Even though the problems facing us on this project are many and difficult, there are a few relieving features about the project on which we may speculate. Apart from the fact that the project is a very big one and therefore correspondingly expensive, it does not present many difficult technical problems. It is within the competence of Madras Engineers, who had built the Mettur Dam twenty years ago and who are building the Tungabhadra Dam now, to tackle the river beds of the Krishna and the Pennar, because they do not involve complicated problems of foundation-excavation or river-diversion. The bulk of the expenditure will be on the excavation of canals; but our Engineers have already acquired considerable experience on this kind of work on other projects.

Second Crop in Krishna Delta

The project is capable of being taken up and executed in easy stages, each stage bringing in some return on the outlay. For example, as soon as the Krishna Reservoir is completed, a second crop can be raised over a million acres in the Krishna Delta. Similarly, when the canal from the Krishna Reservoir to the Pennar is completed, it will irrigate three lakhs of acres and also enable a second crop to be raised on two lakhs of acres in the Nellore Delta. There are seven main canals in all, two taking off from the Krishna Reservoir, two from the Gandikota Reservoir and three from the Pennar Reservoir.

There is no imperative need to dig all the seven canals at one stretch, but they may be taken up one after another. Even if a portion only of a canal is excavated, irrigation can develop on that portion and begin to yield a return on the capital invested thus far. We need not therefore keep in store all materials and money required for the whole project before we launch it.

Provision in Budget

A good many schemes in our short-term and midterm programmes will come up for sanction during the course of the year. It is difficult to compute, even approximately, what the actual outlay on these new projects will be in the coming year. We have therefore provided a lump-sum of Rs. 60 lakhs in the Budget to cover this expenditure. The actual expenditure on a new scheme, in the year of action, cannot be considerable, because the initial work such as clearing the ground, acquiring land and laying out roads and camps, will not cost much money. Therefore, the amount of Rs. 60 lakhs now provided for will be ample to meet the unbudgeted needs of next year.

Such a provision had been made in the last Budget also and the expenditure of about Rs. 42 lakhs on new schemes sanctioned during the current year, was met out of that grant. At the time of reappropriation of grants, it is possible to estimate the actual expenditure incurred in the year on each new scheme and this expenditure is then shown under the new head, opened in the accounts for that scheme. The balance, if any, in the lump-sum provision is then merged with the general grant to the extent of the deficit under the general grant.

The decision taken by the Government of India recently to stop imports of foodgrains from 1952, has given a new urgency to our short-term programme of food production. We have inherited from our ancestors about 35,000 irrigation tanks, which constitute a fair portion of our real wealth. By gradual silting through the ages, and long neglect, very many of them are unable to sustain the ayacuts registered under them. Even in a year of normal rainfall, there is a scramble for water, because the tanks have lost much of their original capacity and flood waters which should have been conserved in them, drain off to the sea.

Therefore, the quickest way of growing more food is to renovate these tanks and restore to them their lost capacities. This is particularly so in respect of the large numbers of zamindari tanks which are now being taken over by the Government. A scheme has been drawn up in rough detail for this purpose and a start has already been made in a few districts. The object of this scheme is not to bring new lands under irrigation, but merely to ensure adequate supply to lands already growing wet crops. The scheme, which is estimated to cost about Rs. 10 crores, will be spread over five or more years and is expected to relieve our rice deficit to the extent of at least 1½ lakhs of tons.

Corruption Cases Among Government Servants

During the month of January 1950, corruption among Government servants was brought to notice against 314 persons including those against whom proceedings were pending at the end of the previous month. Of these 20 were let off as charges against them were not proved, and proceedings against 279 were pending at the end of the month. Corruption was successfully detected in the case of the remaining 15 persons and they were suitably punished. Of these, two persons were awarded minor punishments. The names and designations of the 13 persons who were awarded severe punishments are as follows:

CASES DEALT WITH BY THE TRIBUNAL.

A. GAZETTED OFFICERS—Nil.

B. NON-GAZETTED OFFICERS.

Raju Pillai, Deputy Commercial Tax Officer, Karur Dismissed.

CASES DEALT WITH BY DEPARTMENTAL AUTHORITIES.

II

A. NON-GAZETTED OFFICERS.

G. Hussain Peeran, Acting clerk, Sub-Registrar Office, Madakasira, Anantapur Dis- Services terminated. trict.

Anjaneppa and Lakshmayya (constables, Anantapur District) Dismissed.

P. Nagi Reddy, Acting Forest Guard Do.

Nam mialisar, Sannasi Thevar, Noor Mohamed and S. Nagarajan (Prohibition Guards, Discharged from service. Ramanathapuram District).

Venkatappa, Rangappa and Nagappa (Prohibition Guards, Anantapur District) Do.

P. G. Pandian (Coastal Patrol, Thirukkalkundram, Chingleput District) Do.

B. INFERIOR SERVANTS—Nil.

Success of Integrated Scheme

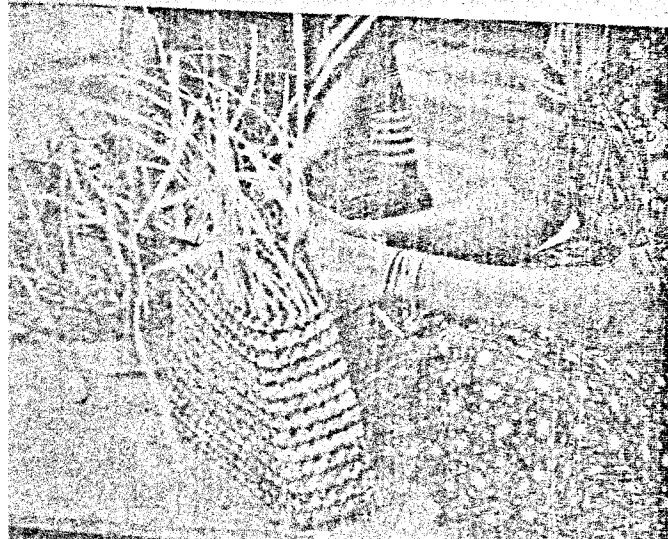
A tribute to the good work that was being done by the Department of Women's Welfare was paid by Her Highness the Maharani of Bhavnagar, addressing the members of the Provincial Advisory Committee of the Department recently. The Maharani called upon the workers of the Department not to rest on the laurels of their achievements in the past, but to think of what lay ahead. Her Highness expressed her appreciation of the good work done by the Department in the field of adult education and in the fight against illiteracy, and pointed out the importance of these activities in the exercise of adult franchise and the fight against social handicaps. Her Highness exhorted the members to give earnest consideration to the many problems that stood in the way of the progress of the Department and declared that the task would become easier when once the people realised its usefulness and importance.

Rural branches.—Since September last, the work of the Department has been greatly consolidated and has taken proper shape. The integrated scheme—house contacts, community service centres, Service Home and Training Institutes—is being more and more correctly understood and appreciated. Even better results are expected after the graduation of the present batch of trainees.

The following Rural Branches were opened since September 1949 :—

- Chittoor District.**—Nagari ;
- Tirunelveli District.**—Kuruvikulam ;
- Ramanathapuram District.**—Kilarajakularaman, Manahaseri and Achankulam ;
- Salem District.**—Kondalampatti ;
- East Godavari District.**—Kadium and Dulla ;
- Krishna District.**—Tiruvur ;
- Nellore District.**—Venkatachalam ;
- Guntur District.**—Santhanuthalapadu ;
- West Godavari District.**—Gopannapalem and Mundoor ; and
- North Arcot District.**—Odugathur.

Craft training includes rattan and wicker work



The Service Home.—The Home now accommodates 100 women and includes widows, deserted wives, destitute and orphans, besides the Balwadi Sections. Training includes instruction in one of the following in addition to general education :—Tailoring, Spinning and Weaving ; (2) House-keeping ; (3) Balasevikas ; (4) Midwifery ; (5) Teaching and (6) Women's Welfare Organisers' Work. The inmates are selected for special training in these according to their aptitude.

Out of last year's batch of 50, the following have joined vocational groups :—

Midwifery—8, Teacher's training—4, House-keeping—5, Balasevika—3, Welfare Organiser—4 and Tailoring and Spinning—16. Nineteen inmates appeared for the Lower Grade Examination in Needlework and 16 for the E.S.L.C. Examination.

Crafts taught are spinning, weaving, tailoring, rattan work. Paper, ink and soap-making will be introduced soon. An honorary Lady Doctor visits the Home thrice a week and also takes classes in First Aid and Home Nursing.

A Balwadi Section is attached to the Home and Basic instruction is imparted to them. This section serves as a practising section for those students who take up Balasevika training.

Special emphasis is laid on discipline, civic consciousness and community living. To promote these ideas, the Home is run on self-sufficiency basis of Gandhian ideology. The members themselves are taught to manage, organise and plan the work of the Home as a whole. The community life of the Home instils in them love for their neighbours, kindness, sympathy and co-operative spirit. There is no caste or creed within the Home and the discipline of the inmates is carefully maintained. A delegate of the International Welfare Organisers' Conference considered her visit to the Home "instructive and interesting" while Mrs. G. Helen Martikunin and Mrs. L. Sankara Iyer, M.L.A., hoped that "such progress may be seen among women in all parts of India and even in a broader horizon".

Attention is paid to art, cultural and physical development besides providing facilities for recreation. Festivals—both national and religious—are celebrated ; excursions, team games and entertainments are conducted.

Training institutes.—Three training institutes are at present functioning to train the field workers, as it was felt that special training is very necessary to carry out effective work on approved lines. Thus there is a training institute at Gandhigram and one at Seethanagaram, both of which train workers for rural areas, and one at Madras, which trains urban field workers. There are 30 students in all the institutes. Though the fundamentals of instruction imparted to the rural and urban workers are the same, emphasis is laid on the differences of approach and special problems pertaining to rural and urban areas. The course includes Basic and special subjects besides crafts, practical work and administration.

Community service centres.—These are becoming more and more systematised and popular ; the happy results of social education can be seen in the new outlook of each

member to become a true citizen of the land. The Citizenship Training enables them to become good members and to take a lively interest in civic matters.

Monthly meetings, study groups and discussion hours in all the centres are held when the members themselves conduct meetings, preside, talk, debate and discuss topics of various interest ; sometimes specialists enlighten them and train members for leadership. Both light talks and thought-provoking addresses are given.

National, social and religious festivals are celebrated. On the Sarvodaya Day the women rededicated themselves to the fulfilment of the great objective for which the Father of the Nation lived, worked and died.

Audio-visual aids like charts, posters, lantern slides, film strips projection, gramophones, trips and excursions are also used to promote social education. Some of the branches are introducing poultry-farming, bee-keeping and kitchen gardening besides other cottage industries like dress-making, cotton-crafts, palm-leaf and coir work and cane and leather work. Hospital linen stitching is a useful occupation for the poor members.

Adult literacy.—The Adult Literacy Scheme of the Department is attracting more members. Besides making them literate, the scheme helps the members to maintain their family accounts, to read and to improve their knowledge. In each centre, the members joining the literacy and study groups are increasing. The enthusiasm shown by the Todas to read and write is noteworthy. Some of the members appeared for the Hindi Prathmic Examination recently. For post-literacy training, small libraries are being built up with the help of the Firka Development Departments and kind individuals.

The Pre-basic or Balwadi Classes are functioning well and the syllabus is so planned as to promote the growth of a strong body and the development of language, muscular co-ordination and refined sense perceptions of the child. Supply of milk, cod liver oil, simple medicines and free midday meals are arranged both with the help of the local bodies and charitable individuals. These are popular institutions everywhere and sometimes the strength of these centres is more than can be managed.

House contacts by the field staff is proving more and more successful as the members look forward to the Department for all help. At the rate of 10 per day each Organiser or Organizers visit 300 families a month, i.e., about 26,000 houses a month in all the Branches. This means that in one year 312,000 homes have been contacted by the Organisers, out of which many would have received more than one visit a week. Percentage of response varies from 30 to 50 per cent. Home visit includes among other things, hospitalisation to ailing members ; this aspect of relief work is becoming stupendous. Recently the field staff of Madras secured medical help for 42 T.B. patients ; 34 women were taken to the Gosha and Maternity Hospitals and 28 patients were treated for various ailments. Handy medicines are being supplied by the Department for minor ailments. The First Aid Clinics in the rural branches are very popular. Employment was secured for the needy and help afforded to admit children into schools and girls for training in various institutes.

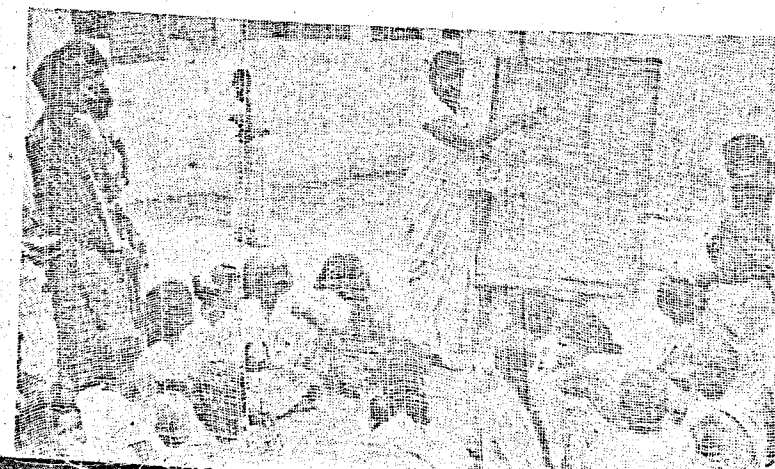
Rural Colleges.—The work of starting three Rural Colleges for Women has been entrusted to this Department.



Bandaging lesson in a First Aid class

These have already begun functioning at Visaknapatnam, Tanjore and Calicut. Students who could not continue their education and those who are anxious to improve their knowledge and study for study's sake have been attracted by the scheme and have enthusiastically availed themselves of this great opportunity. The average strength is 30 at present. If hostel facilities are provided, many from the surrounding villages would be willing to come and improve their knowledge. The aim is to provide higher education for adult women possessing only III Form or E.S.L.C. education. Necessary exemption will be given in the case of suitable candidates. The course is for a period of two years and the syllabus includes special subjects of interest to women. A nominal fee is charged and even this will be waived in the case of deserving poor candidates. A guide book has been prepared by the Women's Welfare Officer for the use of the lecturers of these colleges.

Women throng to an Adult Literacy class



Behind the Scenes in the Madras Museum

by Sri S. T. SATYAMURTI, M. A., Curator, Madras Government Museum

Perhaps the initial impression that a public museum creates in the mind of a lay visitor is that it is nothing more than a show-place or a repository of curios, where there is apparently no external sign of activity. Indeed, the very atmosphere of the museum, with its galleries of mute and lifeless exhibits, might produce a strange sense of static quiescence and inactivity. But this is a highly illusive impression. Actually, an ideal, modern, educational museum is a veritable beehive of active intellectual and technical labour.

The aims and objects of a museum are manifold. The primary objects of a museum are to collect and preserve the relics of the past, treasure prehistoric antiquities, conserve objects of ancient art and hand them down to posterity. Works of art such as sculpture and painting, and archaeological and numismatic remains which provide a graphic picture of the history of our country naturally take a large share of the available space in the exhibition halls of the museum. But at the same time we have so many lessons to learn from Nature and her multifarious creations that Natural History has also come to take an equally important share in our museums. Collecting, preserving, mounting and setting up for exhibition Natural History specimens, both plants and animals, therefore constitute a large part of the primary duties of the naturalist at the museum.

Each type of specimen requires a special technique of its own to be preserved and set up satisfactorily at the museum, and the methods involved therefore demand considerable technical skill and experience. The methods of preservation and exhibition of the main representatives of the animal kingdom perhaps afford the most interesting material for the museum worker.

Microscopic Single-Celled Creatures

Among animals, the lowest creatures in the scale of evolution are single-celled, and are so minute that one can hardly detect them with the naked eye. They may be found in ditches and fresh water pools, or floating in the open sea, or lying on the sand at the sea bottom, or again, as parasites in the blood streams or digestive tracts of various higher animals. Samples of ditch water often yield plenty of common one-celled creature, while many of the forms that inhabit the sea may be collected with a special tow-net. These minute animals are generally mounted on glass slides for microscopic examination, and are therefore difficult to be exhibited for the general public in the museum galleries. Nevertheless, so many members of this group, as for instance, the malarial parasite, are of vital importance to man, and attempts have therefore been made at the museum to exhibit enlarged diagrams, photographs and models of these microscopic creatures.

Sponges, corals, sea-anemones, jellyfishes and other lowly organised animals stand a little higher up in the evolutionary scale of the animal kingdom, and are mostly inhabitants of the sea. Their collection and preservation present considerable difficulties to the museum worker,

who has to undertake frequent visits to coral reefs and shore areas where such animals are generally found. He has to walk and wade and swim in the neighbouring waters around coral islands and sandy shores in order to make a handsome collection of these beautiful treasures of the ocean. He may have to venture into areas where he risks being bitten by a crab, stung by a jellyfish or lacerated by a crumbling mass of coral. But with all this, marine collecting is a pleasurable adventure.

Marine Collections

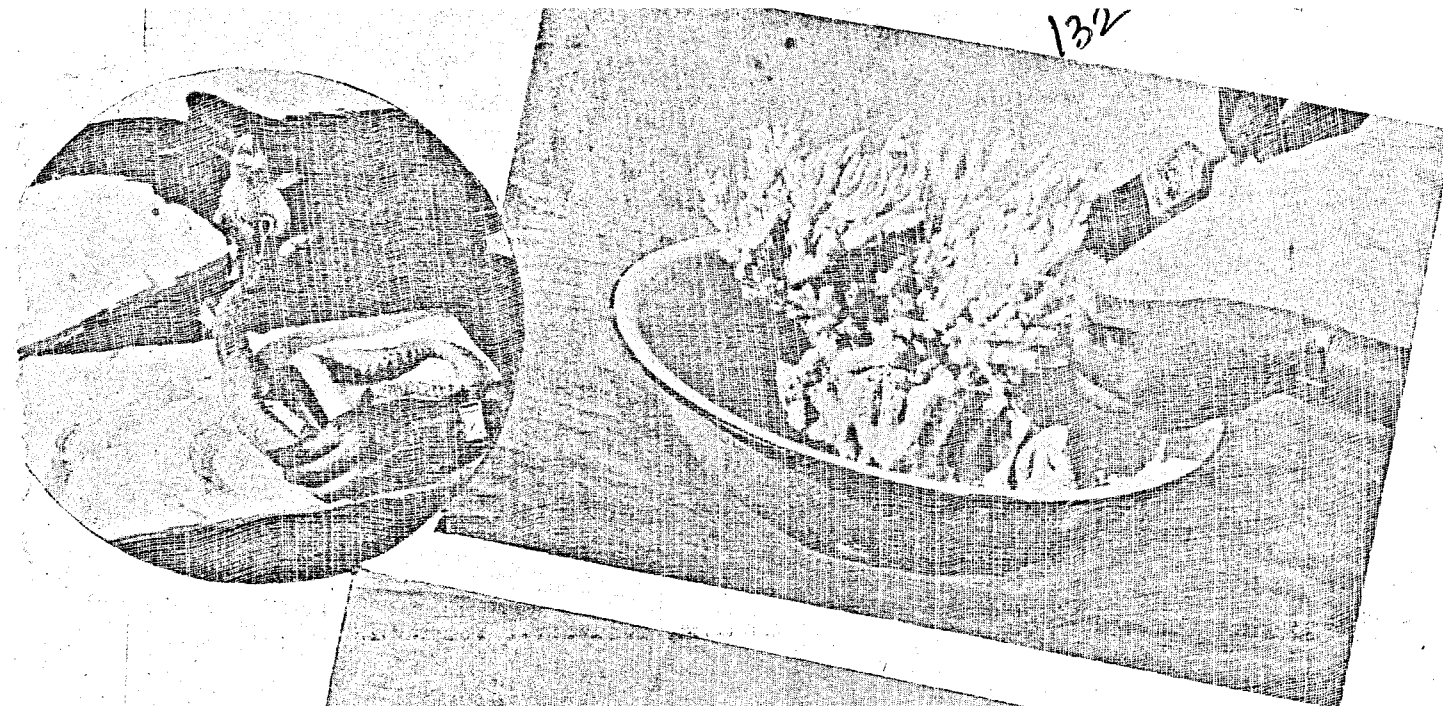
A large variety of even more highly organised invertebrate animals, such as bristle-worms, molluscs or shell-bearing animals including the whelks, cowries, cockles and oysters, spiny-skinned animals including the star-fishes and the sea-urchins and the more high developed creatures such as crabs and lobsters, may be collected when one is out on such a marine collecting trip. An ideal spot for collecting these animals in South India is Pamban, near Rameswaram, and its neighbouring islands known as Krusadai and Single Islands, which are rich in coral reefs and their associated fauna. During marine collecting trips it is often necessary to dredge the sand at the sea bottom at least in the shallow areas adjoining the coast in order to collect the bottom-living fauna. Breaking open the masses of coral rock and shingle and turning over stones on exposed reefs often yield a rich assemblage of marine worms, boring molluscs, crabs and other associated reef fauna.

The task of collecting these animals, arduous as it is, forms only the preliminary part of museum routine. Even more difficult and intricate is the job of suitably preserving the animals, collecting and setting them up for museum purposes. Animal tissues are easily perishable, and unless they are speedily and effectively preserved by a satisfactory method, all the labour spent on their collection would be a sorry waste.

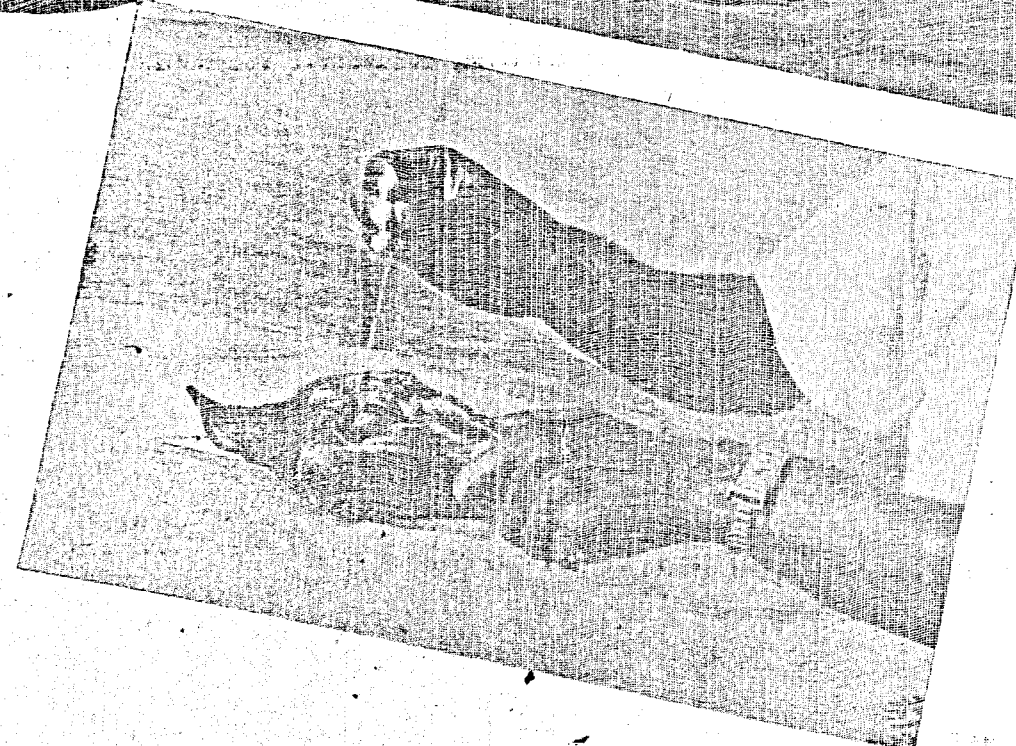
"Put to Sleep"

Many marine creatures as sea-anemones, jellyfishes, worms, sea-cucumbers (a group allied to the star-fishes) and shell-bearing animals rapidly contract and shrink so badly when placed directly in the preserving fluid that they become partially useless either for exhibition or for purposes of study. It is therefore most essential that these should be rendered insensible before they are preserved and this is achieved by first sorting them out in basins of clean sea water. They are now allowed to expand fully to the limit of their natural splendour and are then anaesthetised, or made 'to go to sleep' as it were, by the addition of various anaesthetising agents such as crystals of magnesium sulphate or menthol to the water containing the animals. When they are fully insensible and cease to respond to stimulus, they are thoroughly washed in fresh water and transferred to the preserving fluid.

The best preservative for lower animals in general for museum purposes is strong alcohol (about 70 to 90 per



AT
THE
MUSEUM

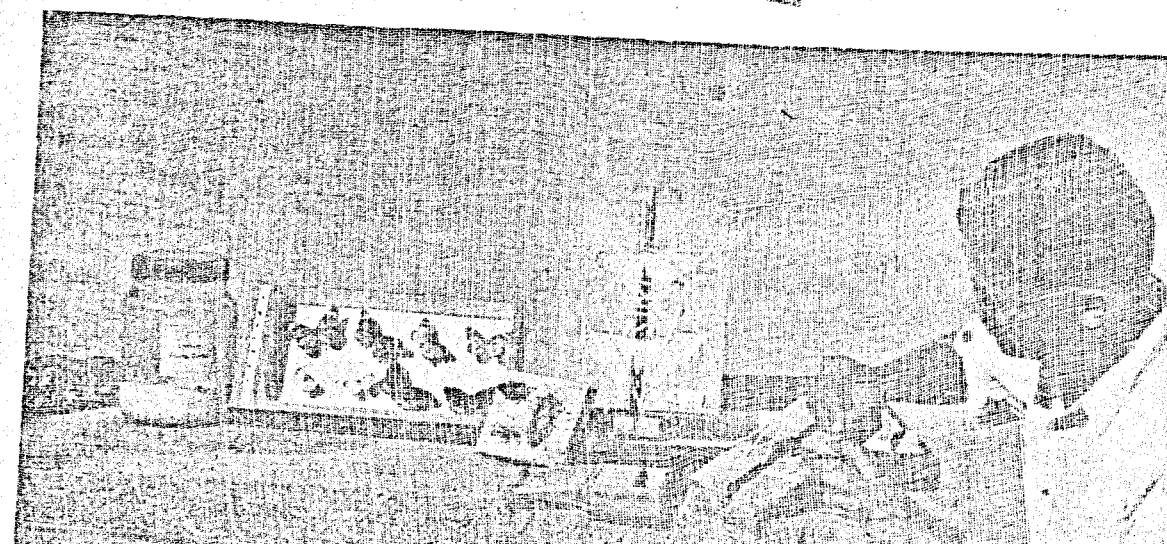


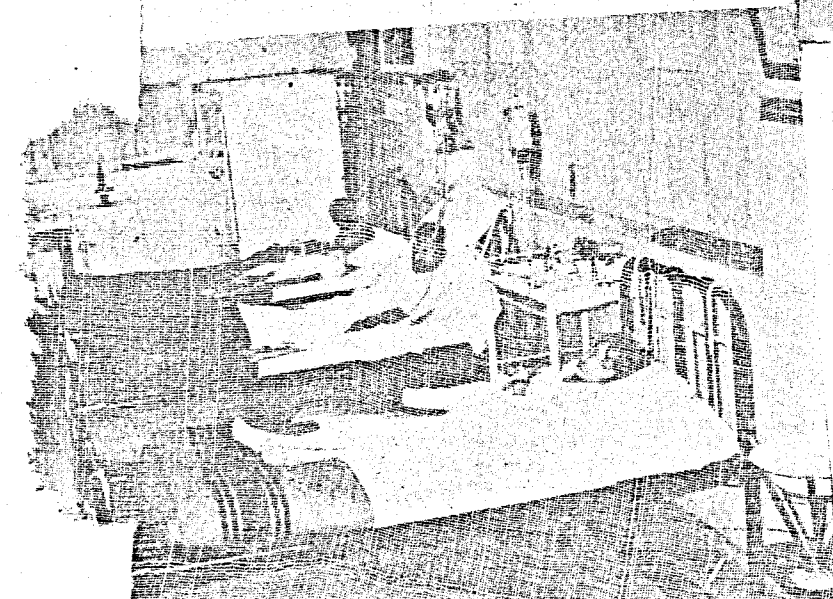
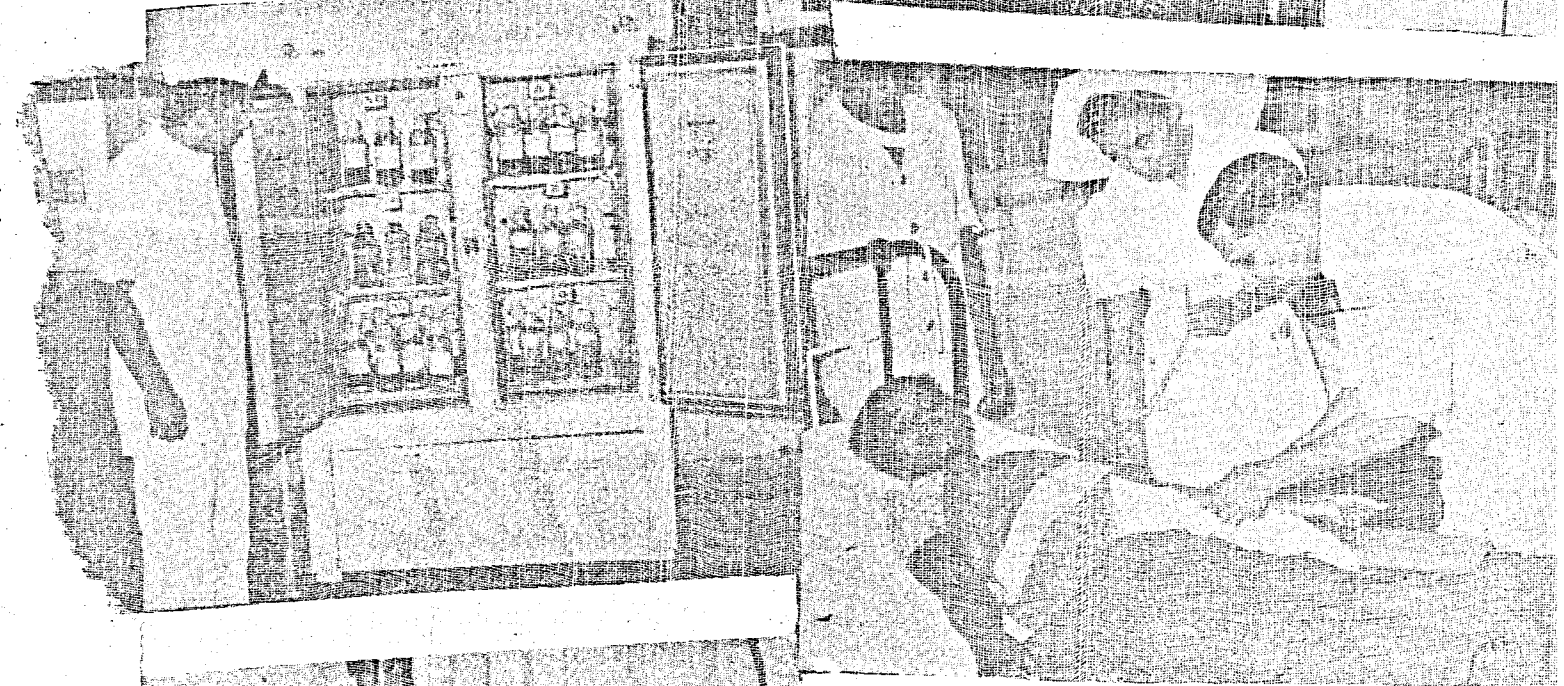
Circle: Preparing a plaster mould of a cobra

Top: Cleaning and bleaching corals

Centre: Stitching up a stuffed pigeon

Bottom: Pinning and mounting butterflies and moths





AT THE GENERAL HOSPITAL BLOOD BANK

(1) Prospective donors line up ; (2) a thorough medical examination including blood tests, is done ; (3) the donor is prepared for blood-letting ; (4) blood is collected in the sodium citrate bottle—this process is quite painless ; (5) donors take rest and refreshments after giving blood ; (6) remuneration of Rs. 5 is paid to each donor. (7) The bottles are numbered and labelled after collection ; (8) the patients' blood and stock blood match before transfusion ; (9) blood stored in the frigidaire after classification ; (10) transfusion being administered to a patient ; (11) view of ward section with patients receiving blood transfusion.

cent strong), but for certain soft-bodied animals such as jellyfishes and anemones a weak, four per cent solution of formalin is preferable. Crabs, prawns, scorpions, millipedes and spiders may be dropped directly into alcohol as soon as they are collected, as they possess hard bodies incapable of contracting appreciably. All preserving fluids are changed after 24 hours as they get diluted by absorbing water from the animals, and lose their strength during this initial period.

Dry Preservation

Fortunately, however, the hard parts of many marine animals, such as corals, shells, sea-urchins, starfishes and even crabs and lobsters lend themselves easily to dry preservation, and most of them make excellent museum exhibits when they are thus preserved dry and mounted suitably. Corals are the hard, massive, limy skeletons built by myriads of tiny marine creatures generally found in large, colonial associations and attaining a luxuriant growth in shallow waters in the warm tropical seas. When they are taken fresh from the sea, they are slimy and variously coloured.

They are soaked in tubs of fresh water for a few days during which the living parts die and begin to emit a most unpleasant odour. The fresh water is changed from day to day, and finally the corals are washed thoroughly, splashed forcibly with handfuls of clean water, brushed all over with a coarse brush and allowed to dry in the sun. They are thus bleached perfectly white and make attractive dry exhibits when mounted in glass-fronted boxes with a black interior lining which display their milk-white beauty to the best advantage.

Shells of molluscs (sea-snails, cowries, clams, cockles, etc.) constitute another large group of objects which fascinate the museum specialist. In the dry condition they are among the most easily preserved of all natural history objects and this is the reason why shell-collecting has always been such a favourite hobby with many an amateur. Shells with the living animals intact may be collected from coral reefs and sandy shores or dredged from the sea bottom. They are also found among stones and boulders in harbours and on rocky shores. The soft parts of the living animal inside the shell are removed with a pair of forceps, and the shells dried in the shade after a thorough wash. The shells are finally given a coating of vaseline to preserve the colour.

Pinning the Insects

Insect collection and preservation form yet another interesting field which provides ample scope for arduous and intensive activity for the museum naturalist. Insects are collected in various ways. Butterflies, dragonflies, bees and many other flying insects may be caught on the wing with the aid of a butterfly net. Beetles and other large members of the bug group may be collected with a pair of forceps from under stones, barks of trees and decaying logs of wood. Moths are generally collected at night by attracting them to an illuminated screen and trapping them with a net. The insects thus collected are first killed by dropping them into a killing bottle containing a layer of cyanide at the bottom. In a few seconds the insects die in this bottle.

They are now removed from the killing bottle and may be pinned and preserved immediately, but if time is short, especially while one is on field trips to hills or remote localities, they may be temporarily wrapped in paper and packed in boxes to be pinned and set leisurely at a later date. In the latter case, the insects thus placed are 'relaxed', or rendered soft and pliant, by placing them in a relaxing bottle containing a layer of moist sand at the bottom for a few hours before they are pinned.

The object of pinning out insects is to display all their external parts to the best advantage and to fix them in this position permanently. With this end in view, the insects are placed on specially designed setting boards made of cork sheets or pith blocks and their legs, wings, and feelers are spread out in the desired natural position and secured in that position with fine pins passed criss-cross over them. The wings of butterflies and other large-winged insects are held down by strips of paper passed over them and secured by pins at their ends.

Displaying Moths

Moths are also preserved in much the same way but in the case of large and bulky specimens it is necessary to slit open the underside of the abdomen, remove the internal contents and stuff the interior with some cotton wool soaked in a preservative fluid such as formalin. This ensures proper preservation of the interior and prevents early decay. The wings of the moth are then spread out on a cork setting board and pinned as for butterflies. In all cases of insect pinning, a central pin passes through the body of the insect. The setting boards and pith blocks with the insects pinned thereon are set aside to dry for a week or two in a cupboard with suitable disinfectants such as naphthalene or a solution of lysol and camphor.

When the pinned insect is thoroughly dry and stiff, the pins, except the central one passing actually through the body of the insect, are removed, the insect is released from the setting board and is ready to be transferred by means of the single central pin to the exhibition box if required for display, or to the storage cabinet, if it is required for the study collections. All storage and exhibition boxes meant for insects are lined internally with cork and are well provided with naphthalene or lysol and camphor to prevent the ravages of pests. Brightly coloured insects such as butterflies and golden beetles make a beautiful exhibition when mounted neatly in a glass-fronted box with a trim border of coloured calico all round.

The capture and preservation of higher animals provided with a backbone present still greater difficulties. Arduous expeditions with nets, traps and other fishing gear have to be undertaken to collect fishes, while careful and patient search in trees, bushes and underground burrows has to be made if the museum worker aspires to gather a good collection of lizards, snakes and frogs. One may have to plod through marshes, wade or swim across streams and rivers or venture into the thick jungle with rifle and ammunition if one wishes to make a decent collection of birds and mammals for the museum.

Mounting of Fishes

For purposes of storage in the study collections of the museum, fishes are best preserved in strong alcohol (70 to

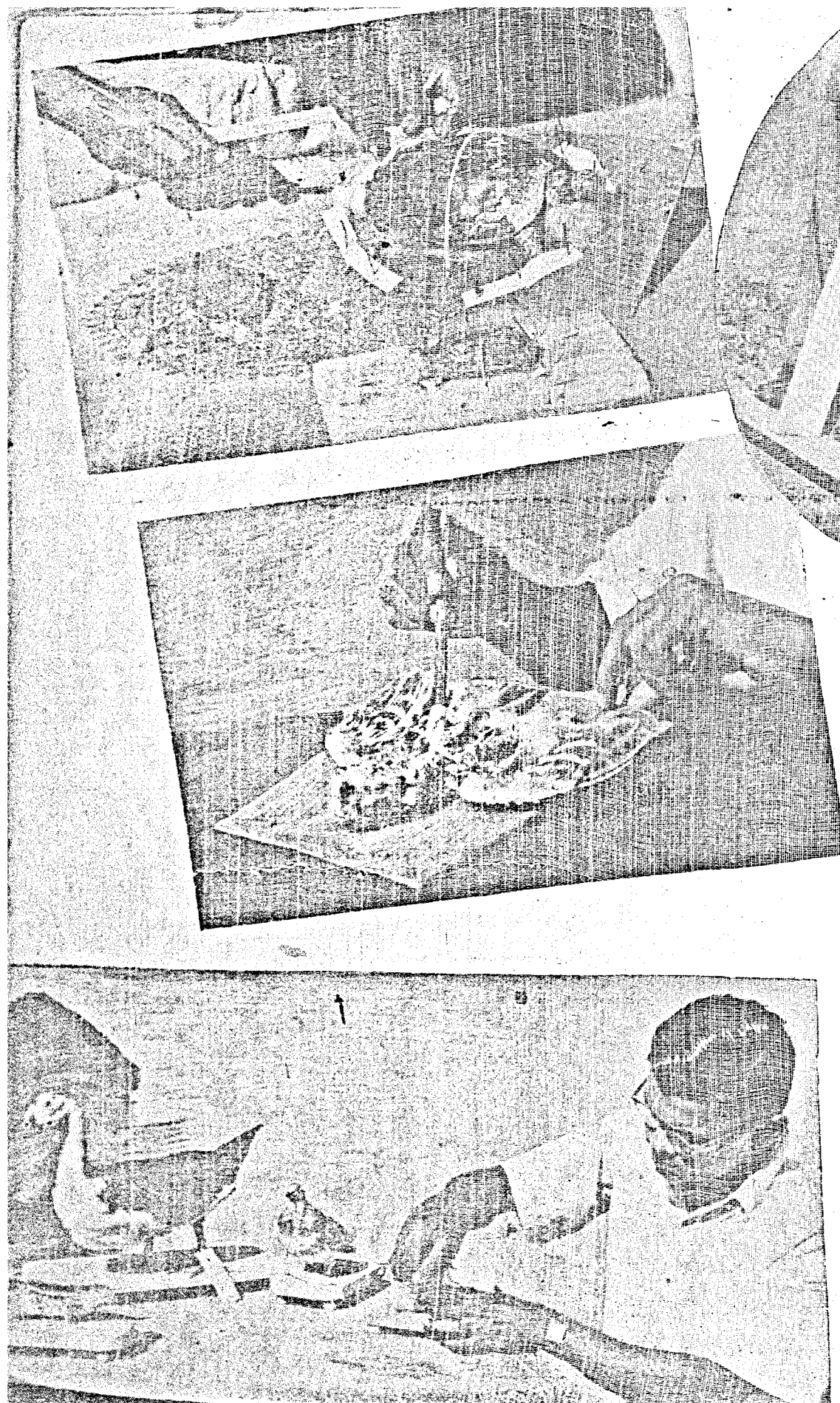
PREPARING THE EXHIBITS

Oval: *Scraping the flesh off from a tanned dog skin*

Top: *Mounting tortoises*

Centre: *Applying arsenical paste to the bird's skin*

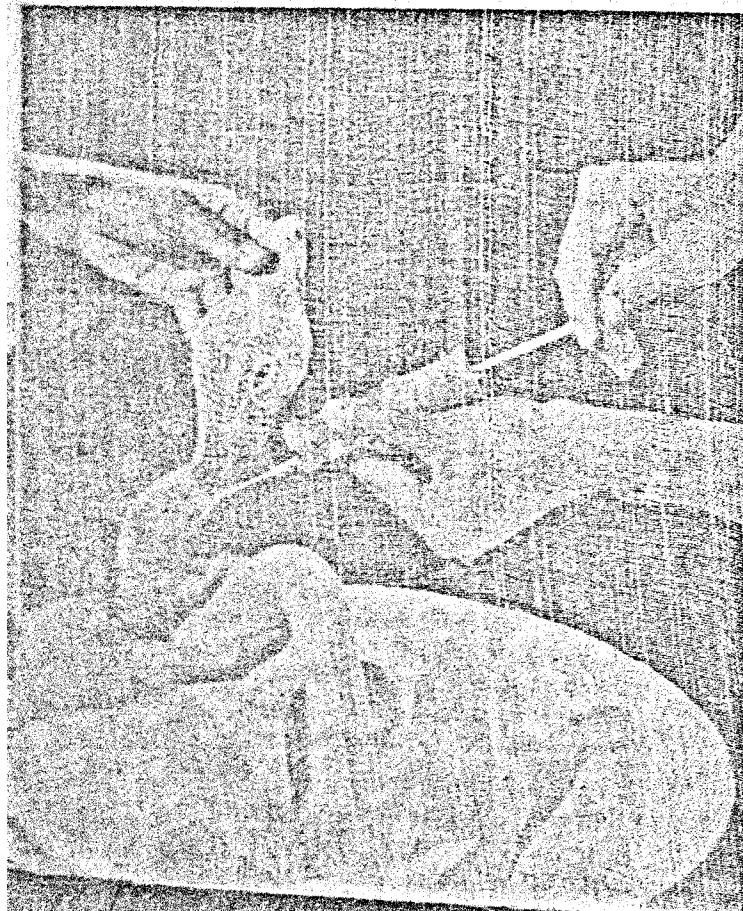
Bottom: *Mounting the stuffed birds*



90 per cent) or in a 5 per cent solution of formalin, but it is important that the preservative should be made to penetrate thoroughly into the body of the fish by injecting it by means of an hypodermic syringe or by making one or two linear incisions on the abdomen. For display purposes in the museum galleries fishes are generally preserved dry as stuffed specimens, or better still, they may be cast in plaster or wax from plaster moulds, and painted in natural colours. For mounting a fish as a stuffed specimen, the fish is first pasted up all over with tissue paper to prevent the scales from falling away. A linear incision is then made on one side of the body and the interior contents removed. The inside of the skin is then washed and thoroughly poisoned with arsenical paste (a mixture of white arsenic, zinc oxide and soap shavings in equal proportions) and an artificial body made up of fibrous material such as tow is placed inside the skin and the incision of the skin is then stitched up. The original eyes are scooped out and replaced by artificial glass eyes. A final touch of oil colour and a little varnish over the skin gives the finished specimen a natural, fresh appearance.

In many cases it is preferable to prepare casts of fishes as they are more permanent. For preparing a cast of a fish, the specimen is first smeared all over with alum water and olive oil, the fins removed and soaked in a saturated solution of borax, and a two-piece plaster mould of the body of the fish is prepared by pouring liquid plaster over the fish and allowing the plaster to set and harden. A wax or plaster cast may be prepared from this mould. In the

Preserving a cobra by injection with alcohol



case of a plaster cast, the interior of the mould is thoroughly coated with soap solution and liquid plaster poured into the cavity of the mould and allowed to set. If a wax cast is to be prepared, the mould is first soaked in warm water dried, and molten beeswax poured into the cavity of the mould. In either case the finished cast is trimmed and painted in natural colours after the fins and the artificial glass eyes have been fixed up in their respective positions.

Frogs and Reptiles

Frogs are best preserved in strong alcohol (70 to 90 per cent). The preserving fluid is injected into the throat to ensure proper penetration of the fluid into the body. Such preserved specimens are generally mounted suitably in specimen jars with the limbs properly spread out, and exhibited in the museum galleries, but as in the case of fishes, wax casts are painted in natural colours, though frogs as a rule offer greater difficulties in casting on account of the presence of limbs. Wax casts of frogs may also be prepared from flexible rubber moulds made of liquid latex. Such painted casts are of course more suitable for display purposes than spirit-preserved specimens.

Reptiles such as snakes and lizards are conveniently preserved in strong rectified spirit after being killed with chloroform. The preserving fluid is made to penetrate thoroughly into the body of the specimen by injection and through linear incisions made on the abdominal surface of the body. The specimens are then mounted in suitable positions on glass plates or mica sheets and displayed in specimen jars containing alcohol, with suitable backgrounds. For display purposes, however, it is desirable to make plaster or wax casts of the specimens from plaster-moulds and paint the casts in natural colours, with a final coat of colourless paper varnish.

Crocodiles and Lizards

Crocodiles and certain large lizards such as the monitor lizard, have to be prepared as stuffed specimens by skinning them, coating in interior of the skin with arsenical paste and stitching up the ventral incision after filling up the interior with an artificial body made of tow, providing supports of galvanised wire for the limbs, neck and tail. Natural colours of the skin are apt to fade, and hence are replaced with oil paints when the skin is dry, and the eyes are replaced with artificial glass eyes. Tortoises are also best preserved as dry, stuffed specimens, by sawing open the hard, box-like shell at the sides, emptying the internal organs, poisoning the interior of the shell with arsenical soap, stitching up the skin incisions in front and behind and attaching the lower plate of the shell to the upper half by means of pieces of thin rust-proof wire after filling up the hollow internal cavity of the shell with plenty of waxed tow.

Birds and Mammals

Birds make attractive exhibits at the museum and constitute one of the most fascinating groups. Birds have to be skinned very carefully as the skin is thin and tears easily. Starting with a median incision on the breast, the skin is very carefully separated off from the body until the entire bird has been skinned, leaving only the skull and rib bones attached to the skin. The interior of the skin is then completely coated over with arsenical paste and an artificial body stuffed with tow on a median core of galvanised wire

is placed inside the skin in the place of the original body. Pieces of sharpened galvanised wire are threaded through the legs to afford proper support for the legs, and their free, sharpened ends are inserted into the artificial body and firmly anchored to it.

The brain and eye-balls are removed and their cavities are liberally smeared over with arsenical paste. When the shape of the artificial body has been checked up and adjusted properly, and some loose filling of tow given wherever necessary, the main ventral incision of the skin is sewn up with needle and thread, and the feathers are arranged in their natural position, and secured in that position for a few days by means of thread passed round and round the bird in all directions. Finally, artificial glass eyes of appropriate size and colour are set in the eye sockets and the bird is mounted on a suitable perch.

Small mammals such as squirrels and rats are skinned in much the same way as birds, the preservative used being the same arsenical paste. But in the case of mammals larger than a cat, it is necessary to tan the skin thoroughly by soaking it in a solution of alum and salt and then shaving from the inner side of the skin, over a shaving beam. After tanning the skin is washed thoroughly in fresh water to remove the salt, dried in the shade and oiled on the flesh side with some warm vegetable oil. The excess of oil is removed by rolling the skin in a drum of sawdust and brushing off the sawdust with an air hose or a coarse brush. The skin thus prepared is soft and flexible and is now mounted over an artificially made manikin of the animal and the incisions in the skin stitched up after shaping and adjusting the body form as satisfactorily as possible. The artificial manikin is generally made hollow with some light material such as papier-mache over a scaffolding of iron rods for the limbs and neck.

Skeletons and Eggs

Skeletons reveal a good deal about the structure and habits of animals and hence are of great educational value. The skeletons of frogs, birds, small mammals and reptiles may, as a rule, be prepared as ligamentary skeletons, i.e., with the various bones attached and kept intact by their own ligaments. The animal or bird is first skinned, the belly opened and the internal organs emptied. As much as possible of the flesh is scraped away from the bones, the skull is separated at its base and the brain scooped out with a brain spoon. The skeleton is then allowed to macerate in a tub of water for a day or two and the water changed frequently. The odour emitted by the macerating skeleton is intolerably obnoxious!

The skeleton is then soaked in lime water (*chunam*) for a few days and all the flesh cleaned away by carefully scraping the bones with a wire brush. When clean, the skeleton is degreased by soaking in a jar of benzene and then bleached by immersion into hydrogen peroxide solution for about 24 hours. The skeleton is finally dried in the sun until it is perfectly bleached and white, when it may be moulded on a neat wooden pedestal and exhibited in the museum galleries.

A handsome collection of named eggs of birds and their nests adds considerably to our knowledge. For preserving a bird's egg, a hole is drilled by means of a special instrument called the egg-drill, at the broader end of the egg and the internal contents of the egg are carefully forced out by blowing in through the hole with a blow pipe.

Award for Best Tamil Films

In pursuance of their decision to grant a medal and trophy to each of the best Tamil and Telugu films produced in South India during 1949, the Government appointed a Committee for selecting the best Tamil film for the award consisting of the following:

Sri K. Venkataswami Naidu, M.L.C.
(Chairman).

Sri T. N. S. Raghavan, I.C.S.,

Sri V. C. Gopalaratnam,

Srimathi Kailasam, and

Sri R. V. Swaminathan.

No Telugu film was entered for the award.

Among the three Tamil films *KANNIYIN KATHALI*, *NAVA JEEVANAM* and *LIFE* competing for the award, the committee has recommended *NAVAJEEVANAM* as the best production of 1949.

Accepting the decision of the Committee the Government have decided to grant the award to *NAVAJEEVANAM*.

The interior of the eggshell is then washed out by forcing a mouthful of water through the hole by means of the blow pipe. A preservative such as 4 per cent formalin is injected into the eggshell with a pipette and drained out. The egg is allowed to dry in an open box lined with cotton-wool, and may be finally mounted in a glass-topped box for exhibition.

Sometimes enlarged models may prove very useful as museum exhibits, especially in cases where small and inconspicuous animals have to be displayed for exhibition. Specimens such as mosquitoes, houseflies, their larvae, earthworms, etc., lend themselves favourably to modelling. These may be either modelled directly in wax, or by casting in wax from a plaster mould prepared from a previously made plasticine model. Direct modelling is done by painting melted beeswax with a brush over a core of galvanised wire armature wound round with cotton or tow to the desired shape. After an almost endless process of trimming and shaping, building up and rubbing down, the final shape of the model is achieved. Wings of insects are reproduced on an enlarged scale in celluloid sheets and insect eyes are simulated by fine glassbeads in the model. Hairs are represented by sticking in bristles into the model. The finished model is then painted in natural colours with oil paints.

The preparation of exhibits, elaborate as it is, constitutes only the preliminary part of museum exhibition. Other important details relating to the proper care, casing, display and labelling of the exhibits have to be attended to and all these form routine items of work at the museum.

Firka Development Work

The prosperity of the country depends very largely on the prosperity of the rural side, because, in our country, the vast millions are concentrated more in the rural parts than in urban areas. For some considerable time past, owing to several causes, greater attention had been paid to the growth and improvement of towns and cities. Mostly the villages have been in a neglected condition. In fact, a number of villages to-day present a decaying and desolate appearance. Ignorance and poverty are the main features of the rural life in our country. But the progress and prosperity of our State, as indeed the whole of India, depend largely on villages, in which live more than 50 per cent of the population. Modern amenities like education, sanitation, drinking water-supply, etc., are not made available to them. Agriculture and cottage industries, which are the backbone of our country's prosperity, have not been paid as much attention as they deserve.

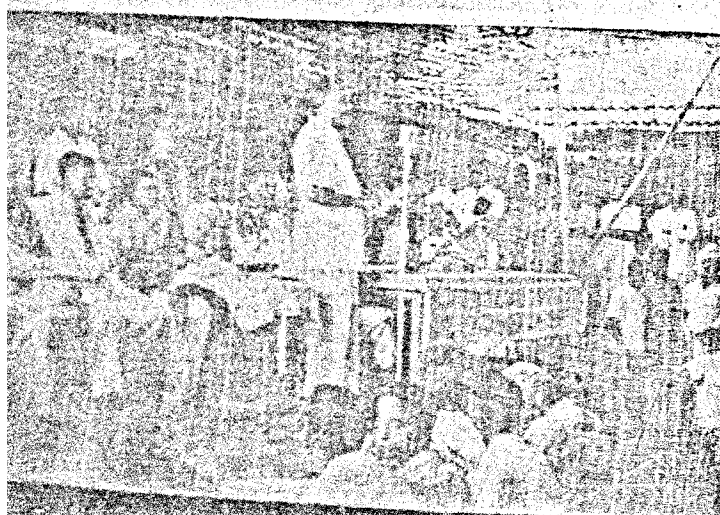
As Sri P. S. Kumaraswami Raja, the Chief Minister, in his opening speech at the meeting of the Provincial Firka Development Board, Madras, observed:

"Firka development work is not a thing to be inaugurated for the first time now; it has already been adopted as part of the Government's scheme for rural reconstruction and development and the work is already in progress in selected firkas or centres in the districts."

Enriching Rural Life

Villages are to be revitalized and rural life must be enriched. The more we attend to the promotion of rural welfare the more would we be improving the economy and welfare of the country. The firka development scheme is a new and promising activity of the Madras Government, formulated on the Gandhian plan of rural reconstruction, with its emphasis on the promotion of welfare of the villages; it is for resuscitating and enriching the village life that the firka development scheme was started by the Government. The scheme aims at improvement of the economic and sanitary conditions of the villages, and is designed to create in them an active interest in their

Sri K. Madhava Menon, Minister for Law, opened the Exhibition arranged at the 10th Malabar District Co-operative conference. Here he is seen addressing the Conference



problems, and make them self-reliant. The scheme also aims at developing the spirit of co-operation in the villages and at creating the proper field for co-operative effort, thereby organising the villages for a happier and fuller life.

It is the intention of the Government that the firkas and centres selected for intensive rural reconstruction work should be built up on the basis of self-sufficiency as far as possible. Every endeavour should be made to create self-sufficiency in food and clothing in these villages selected for intensive rural reconstruction work. The scheme embodies technical concentrated development, and involves the co-ordination of the work of the various nation-building departments of the Government, like Agriculture, Irrigation, Industries, Veterinary, Medical, Public Health and Communications, etc.

Selection of Firkas

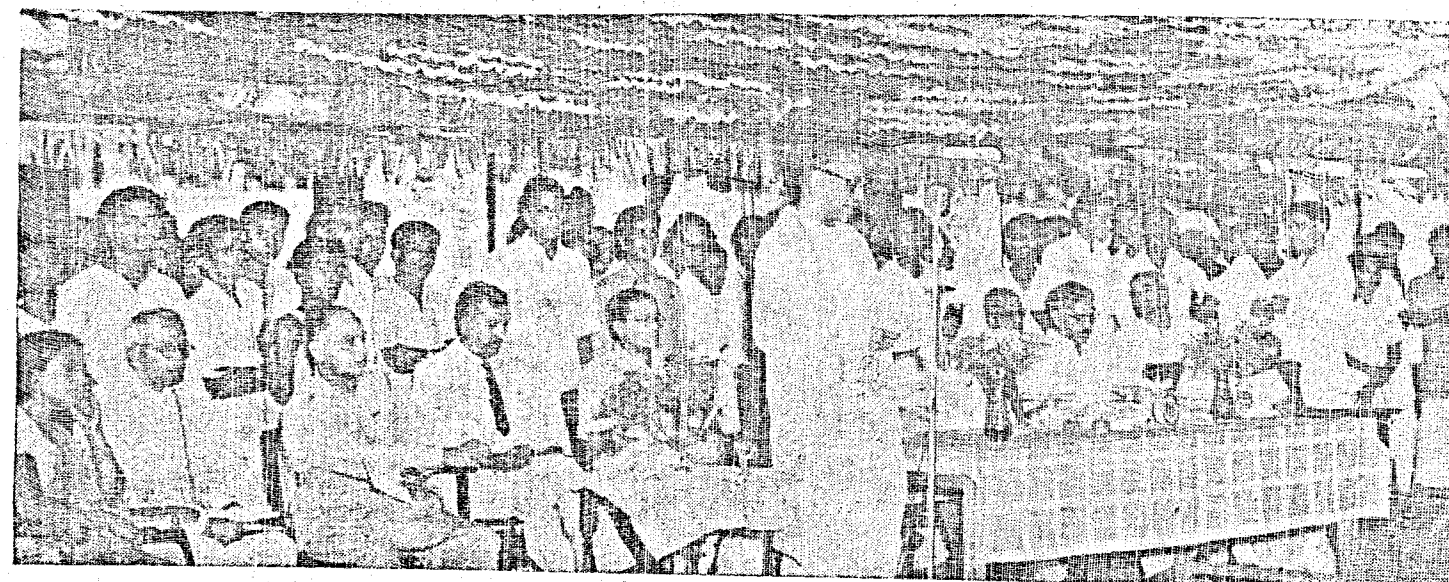
The Government started intensive rural reconstruction work in 34 selected firkas and centres. The firka is a convenient unit. Firkas where some work had already been done in model villages, or where there were some non-official agencies already at work, or where there was manifest enthusiasm, which could be put to some constructive use, were selected. The selection of firkas was also based on considerations of general backwardness of the firka with regard to communications, sanitation, lighting, water-supply, etc. There is no virtue in selecting for the firka development work areas which are already well off in very many respects.

It is only the backward areas that serve as suitable fields for the development work to bear fruit. The presence of electric installation in or within these areas, firka or centre, the existence of available conditions for intensifying the production of handloom cloth and for development of khadi and other cottage industries, were also taken into account in making selection. The Government are making all efforts to work out the scheme with success, and they have succeeded fairly to a large extent.

Water-supply and Communications

In the scheme of rural development, high priority has to be given to water-supply and communications. The health of the people is the very foundation on which depends all their happiness and well-being. In very many villages, drinking water is not available. Therefore, the very first step necessary for the improvement of rural areas is the provision of water-supply. And this has received the highest priority in the firka development scheme. Similarly, for the development of rural areas, it is equally necessary to provide communications which are badly lacking in most villages.

Realizing the importance of these two needs, the Government have provided Rs. 50,000 on each of the above two items for each firka. It is gratifying to know that the work of formation of road communications has met with great encouragement and success, as villagers themselves, realizing the great benefit they are deriving by the road communications, have made voluntary contribution in the form of labour, materials and even land.



Sri P. S. Kumaraswami Raja, Chief Minister of Madras, opening The 10th Malabar District Co-operative Conference held recently at Badagara. The Chief Minister told Ma'abar Co-operators: "Agricultural Co-operatives, as well as other co-operatives organizations like the Land Colonization Societies and Sales Societies should be pressed into service to intensify food production."

Development of Agriculture

The development of agriculture is also attended to with all earnestness, as it will result in self-sufficiency in food. Deficiency in food production is the burning problem which our country is facing. To increase productivity of lands, facilities are given in these selected firkas for the supply of better seeds and manure, better implements and better livestock, etc. With regard to the construction of buildings and wells, etc., the response from the villagers in the selected firkas has come in a large measure. This only indicates that the circumstances are favourable for tapping the local resources for development of rural areas. The Government have, therefore, decided to extend the intensive rural reconstruction scheme to 50 new additional firkas in the State. The Government are determined to push through with the scheme in those new areas.

But however much the Government may endeavour to work the scheme through their official machinery, non-official co-operation is also necessary to make the scheme a full success. The association of non-officials and the public in implementing this scheme is absolutely necessary. The intensive rural reconstruction scheme provides the democratic basis for development of rural areas and aims at placing the destiny of the masses in their own hands. The villagers themselves should have a share in framing the proposals for their own development.

No Permanent Spoonfeeding

It must however be mentioned that the entire governmental machinery (like Firka Development Officer, etc.), now set up in charge of the work, is not to be retained permanently in the firka. There cannot be permanent spoonfeeding. The firka development work should be extended to other firkas also, and to them the special facilities available under the scheme should also be given. The Government's responsibility rests equally for the

development of other firkas as well. So, when the work in a particular firka now included in the scheme has gone ahead fairly well, the people of that firka must be prepared to take up the responsibility for further work and development. This they should take up through village panchayats formed in their area.

The scheme of firka development necessitates the closest contact of the workers with the villagers. It is only with a view to bring about co-ordination of non-officials with officials in the field of rural development, that the various Firka Development Committees as also the Provincial Firka Development Board, are made to contain leading non-official gentlemen, who are selected for their public spiritedness and devotion to the cause of rural uplift.

Animal Husbandry Units for Firkas

The Government have approved the proposal for the starting of Animal Husbandry and Poultry Units in Grama Sevak Vidyalayams at Kallupatti and Gopannapalem for practical and demonstrational purposes. Kallupatti and Gopannapalem are two of the selected firkas where intensive rural reconstruction work is being carried on.

Salvage of Dry Cows at Kambakkam

The rate of fee for the maintenance at Kambakkam Reserve Forest of animals admitted into the scheme for the salvage of dry cows of Madras City has been enhanced as follows:—

- (1) Rs. 10 per animal per month, in cases where the owners' income is not above Rs. 500 per mensem, and
- (2) Rs. 12 per animal per month, in cases where the owner's income is above Rs. 500 per mensem.

Failure of Monsoon : Relief Measures Adopted

The North-east Monsoon has failed for a third year in succession in certain parts of the State, particularly in certain Central and Southern districts, causing widespread failure of crops. Consequently, unemployment among agricultural labourers has been felt in these areas. The Government as early as December 1949, deputed the members of the Board of Revenue to tour the affected areas intensively to study the conditions at first hand and to formulate for the consideration of the Government proposals for the relief of distress in these areas. On the recommendation of the Board of Revenue the Government sanctioned remission of land revenue in the affected areas on a liberal scale, the details of which have already appeared in the Press.

The present policy of the Government when conditions of distress prevail in any area as a result of adverse seasonal conditions is to expand, as a preliminary measure of relief, the ordinary public works so that agricultural labourers are provided with work in or near their villages. The Collectors of the affected districts were accordingly directed to undertake such works to provide employment to these in need of it. The works undertaken include works in the minor irrigation and rural water-supply programmes and those to be taken up under the Grow More Food Campaign. In some districts, road works under the Highways Department or under District Boards have also been undertaken. The estimated cost of the works in progress is about Rs. 68,76,234. The Government have also on hand estimates for further items of work ready to be taken up should the situation demand it.

The works selected are such as would not only be of immediate benefit to the public but would also continue to be useful, the only financial commitment being the annual maintenance charges.

In Chittoor District the Government have sanctioned a grant of Rs. 2.50 lakhs to the Chittoor District Board for undertaking repairs to certain road works in Kalahasti Taluk and in parts of Tiruttani Taluk.

The Government have sanctioned a sum of Rs. 1,38,726 for silt clearance work in major channels in Dharapuram and Palladam Taluks, Coimbatore District. Special staff

has been appointed for the disbursement of agricultural loans to needy ryots.

Fodder.—Fodder scarcity has been reported from Coimbatore District and from parts of South Arcot. Special agencies have been selected by the Collectors for the import of fodder. The railway authorities have been addressed to give the highest priority for the transport of fodder from surplus to deficit areas. They have also been requested to introduce the concessional rates of railway freight for fodder transport.

Drinking water.—Scarcity of drinking water is felt in certain areas. Collectors of the affected districts have been asked to arrange for the supply of drinking water through lorries and railways.

Subsistence loans.—The provision under the Famine Code for the grant of subsistence loans to enable small agriculturists to carry on till seasonal conditions improved is being applied wherever necessary.

Relief to weavers.—Since, in addition to the distress caused by adverse seasonal conditions, weavers were reported to have been badly affected as a result of the loss of markets for the finished goods, and the recent short supply of some counts of yarn in Melapalayam Municipality in Tirunelveli District, the Government sanctioned, and are continuing to give, gratuitous relief of Rs. 2-8-0 to Rs. 3 per weaver family per week. Special steps are also being taken to supply them with yarn.

General.—A Famine Relief Committee has been set up for the distribution of rice kanji to the needy and famished in Tirunelveli. One lakh multi-vitamin tablets have been allotted to the district for distribution to the deserving poor.

Adequate measures have been taken everywhere to provide relief to the unemployed agricultural labourers. It has been reported that agricultural labourers who migrated from certain parts of Ramanathapuram and Tirunelveli Districts in search of employment are returning as employment is available in their own places.

The number of works in progress and the number of labourers employed as seen from the figures available up-to-date are given below :—

Name of the district.	Major irrigation works.	Minor irrigation works.	Number of works in progress.			Number of labourers employed per day.
			District Board works.	Food production works.	Firka Development works.	
Nellore	..	29	..	..	..	917
Chittoor	..	..	..	..	..	600
Chingleput	200	249	398	20	..	23,531
North Arcot	68	154	9	20	22	12,373
South Arcot	67	71	47	11	7	37,076
Tiruchirappalli	9	33	..	8	77	547
Tanjore	..	16	2	3	..	104
Madurai	..	6	..	..	..	5,690
Ramanathapuram	..	226	6	36	..	12,500
Tirunelveli	2	32	12	2	..	33,372
Coimbatore	..	..	19	35	..	10,310
Salem	..	7	..	..	..	200

Scheme for Organising Rural Housing Societies

The Government have approved a scheme for organising separate Housing Societies in rural areas. Besides borrowing money from the Government and passing on loans to individual applicants in instalments for the construction of their own houses, these rural Housing Societies will assist the members by procuring and supplying building materials, such as cement, iron and steel and timber.

During the first year the scheme will be introduced in one village in each district and the State loans will be advanced for the construction of a colony of 20 houses in each village. A provision of Rs. 20 lakhs has been made in the Budget for this purpose.

With a view to ensure the safety and prompt recovery of loans advanced to the members of the Societies, every applicant under this scheme will be required to take shares in the society only in cash and the value of sites will not be permitted to be adjusted towards the share capital. Loans would be restricted to three times the paid-up share capital, and would be granted only for the construction of pucca buildings capable of lasting for nearly 30 years. No loans would be advanced for the construction of houses whose estimated cost is less than Rs. 3,000 or whose plinth area is less than 450 square feet. The maximum amount of loan would be restricted to Rs. 5,000 per house and the houses to be constructed under this scheme should also be in one colony and not lie scattered.

Coimbatore Combats Drought Distress

The North-east monsoon this year was a thorough failure. Consequently there was draught and scarcity of water, which led to scarcity conditions in Udamalpet, Palladam and Dharapuram Taluks in Coimbatore District. For want of water no crops were raised. Cattle were sold away by the people for very low prices, either for want of money or lack of fodder to feed the animals. Many ryots are unemployed, and in several places people have started to migrate in search of work.

The District Collector conferred with the Heads of Departments to find out ways and means to overcome the scarcity conditions. Sri W. R. S. Sathianathan, I.C.S., Commissioner of Land Revenue, toured the stricken areas and reported his findings.

Famine works are generally carried out from out of provincial funds. But as the Government have not declared the areas as 'famine-affected areas,' the President of the Coimbatore District Board, in consultation with the Collector, decided to give relief to the ryots in the stricken areas by executing road works such as formation and widening of roads. The Divisional Engineers, Coimbatore and Erode, sent series of estimates for the works. In anticipation of full grants from Government, works to the value of Rs. 2,59,300 have been sanctioned. Necessary tools such as pickaxes were also purchased for departmental labour and imprests given to supervisors up to Rs. 4,000 to facilitate payment of wages to the coolies without delay.

Thousands of people are working under the scarcity relief scheme. With the execution of these road works it is expected that distress in the scarcity areas will be minimised. (Please also see third and fourth cover pages).

Harijan Hostels

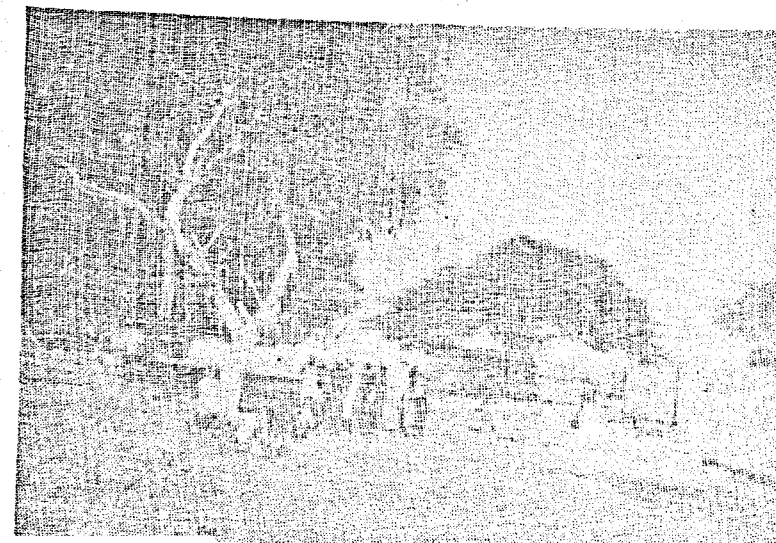
The Government have passed orders modifying previous instructions for the formation of Managing Committees for all private hostels for Harijans and other eligible communities which are subsidised by Government.

The revised order fixes the strength of these Managing Committees at six. The terms of office of the members of the Committee will be two years. The members will not be eligible for any travelling allowance for attending the meetings of the Committee. These Managing Committees will also function as Selection Committees for admission of boarders into the hostels.

Sandur Taluk

The Government have ordered the constitution, as a separate taluk, of the merged State of Sandur together with the Tornagal and Chorapur firkas of the Hospet and Kudligi Taluks respectively. The Sandur Taluk so formed will have as its headquarters Sandur and will be attached to the Hospet Revenue division of the Bellary District.

Finishing stage of road work on the Surianallur—Eragampatty track



Policy Of Social Reform

Moving for a grant of sum not exceeding Rs. 69,25,400 under the demand 'Excise' in the Madras Legislative Assembly, Sri N. Sanjeeva Reddi, Minister for Prohibition, explained briefly the policy of the Government regarding the social reform of Prohibition.

Sri Sanjeeva Reddi said:—

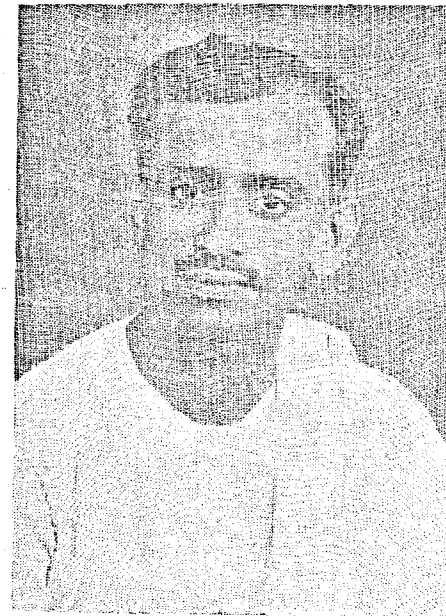
Prohibition is now in force in the whole of this State except the Partially Excluded areas and Sandur which was recently merged with the State. Though Prohibition has not been formally extended to the Partially Excluded areas, all abkari and opium shops have been closed in those areas also. It has been decided to extend Prohibition to Sandur with effect from 1st April 1950 and the question of extending it to the Agency tracts also is separately under consideration. In 1945-46 just before the extension of Prohibition to the first batch of eight districts, there were 10,382 toddy shops and 4,161,507 palm trees, i.e., one tree for every 10 persons in the State was marked for tapping toddy. There were 5,985 arrack shops and 2,445,543 proof gallons of arrack were consumed during that year. All this has been completely stopped now.

Prohibition is now enforced in this State by the Excise Department in 16 districts and by the Police in eight districts. The possibilities of making the enforcement of Prohibition a part of the normal duties of the general police has been examined and the Government have decided that ultimately the enforcement of Prohibition law like the enforcement of any other law, should form part of the normal duties of the general police. If necessary, the police force will be augmented when enforcement is entrusted to it as part of its normal functions. The possibility of increasing the number of police stations when that is done is also envisaged. For the time being, it is proposed to entrust prohibition enforcement to the general police as part of its normal functions in four districts. The experience gained in these districts will determine the pace at which enforcement is entrusted to the general police in the remaining districts.

Reorganisation of Ameliorative Work

The co-operation of non-officials is greatly needed for the successful enforcement of Prohibition. District Advisory Councils and Taluk and Village Prohibition Committees have been formed for securing the co-operation of non-officials. Rewards for detecting offences were also granted to certain non-officials who were willing to accept the same.

In 1948 the Government considered the reorganisation of the Ameliorative Department in the light of the recommendations of the Madras Prohibition Enquiry Committee and of the Retrenchment and Reorganisation Committee. It was tentatively decided that the amelioration work connected with Prohibition might be restricted to the finding of alternative employment to ex-tappers by forming co-operative societies, etc., that there was no longer any need to carry on recreational activities but that propaganda in favour of Prohibition might be carried on. It was considered that the Ameliorative Staff might be replaced by propaganda officers.



Amelioration work connected with Prohibition was transferred to the Co-operative Department with effect from 15th October 1948, the number of posts of Assistant Development Officers was reduced to two per district and the posts of village guides and ballad singers were abolished. It was also decided to entrust the ameliorative work to the Deputy Registrars and to abolish the posts of Special Development Officers as soon as orders issue in the separation of audit from administration work in the Co-operative Department.

It was further decided to appoint propaganda officers at the rate of two for each taluk on a scale of Rs. 70-3-100 with other allowances for travelling, etc. They will do propaganda not only for Prohibition but their services will be utilised for giving publicity to other activities of the Government. The Special Development Officers will be the appointment authority in respect of these propaganda officers and the Deputy Commissioner of Prohibition and Joint Registrar of Co-operative Societies the appellate authority in disciplinary matters.

Provision for Grant of Permits

Provision has, however, been made for the grant of permits to individuals to possess and consume liquor on payment of the prescribed fees. In the case of Europeans permits are granted on application, whereas in the case of Indians and Anglo-Indians no permits are as a general rule given, but the Government may consider exceptional cases supported by medical certificates which should mention the particular ailment which necessitates the taking of liquor. There is also provision for the grant of authorities free of any fee for the possession and use of as much liquor as may be required for bona fide religious purposes.

All spirituous medicinal preparations were till recently exempted from the provisions of the Prohibition Act subject to certain conditions. As it was observed that some of the preparations were being misused as substitutes for alcohol on a very wide scale, restrictions were imposed on the sale of these preparations also. There is a long list of them, but to mention a few of them, preparations like Garbaraj, Thranaraj, Jwararaj, Tincture Zingiberis, etc., were being misused as substitutes for alcohol. Now they can be sold only by those possessing a licence under the Madras Prohibition Act.

Spirits for Medicinal Use

Under the conditions of the licence, the preparations can be sold only on the prescription of a qualified medical practitioner in quantities not exceeding one quart at a time in the case of the patent preparations and in quantities not exceeding 2 ounces at a time either as an ingredient of a mixture or by itself in the case of B.P. preparations, namely, Tinctures. Cases of misuse of Cocaine Hydrochloride and of breach of the rules governing its sale, etc., have recently been reported. Necessary steps are being taken in the matter.

Ayurvedic preparations like Asavas and Arishtas and medicated wines, brandy and similar preparations are permitted to be sold for medicinal use only on the prescription of a qualified medical practitioner by those possessing licences. No duty is levied on preparations certified to be genuine ayurvedic preparations by the Principal of the School of Indian Medicine and which do not contain more than 20 per cent proof spirit.

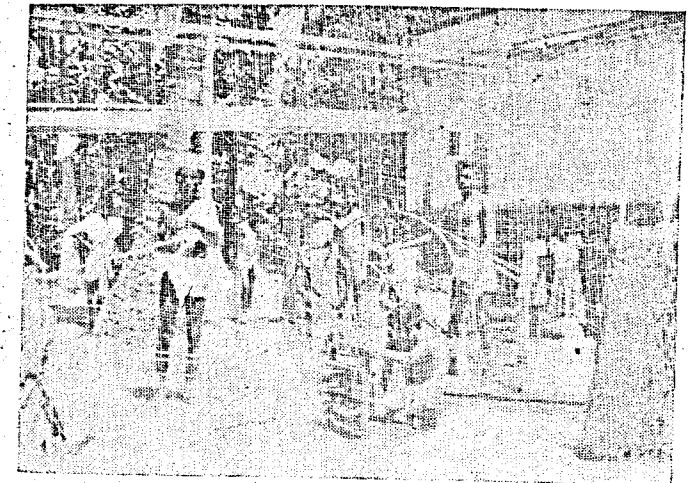
Opium for Registered Addicts

Opium is now supplied only to registered addicts who get their supply from Taluk Offices. With a view to stop the consumption of opium except for medical purposes at the end of five years, the quantity that is supplied to any addict is progressively reduced. The consumption of ganja has now been completely stopped in this State. Sometime back the Union Government convened a conference with State Ministers for co-ordinating the various measures necessary for the implementation of a common policy of prohibition of opium, and the matter is receiving the consideration of the Union Government.

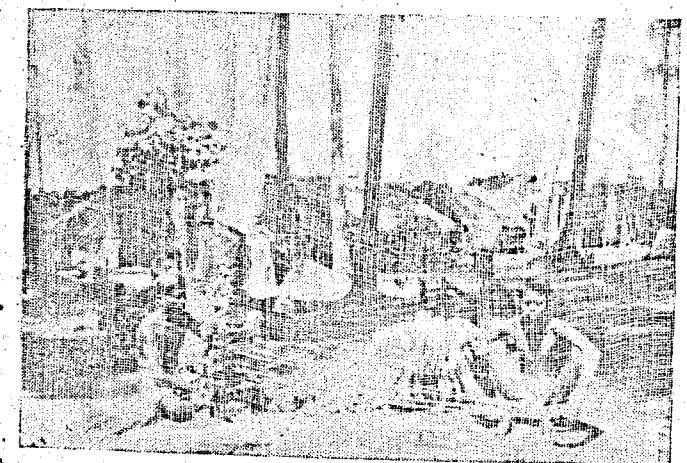
The Government have taken steps to utilize the natural resources of the palm tree which will otherwise go to waste on account of the introduction of Prohibition. Provision has been made for the grant of permission to tap palm trees for sweet juice which may be used either for the manufacture of jaggery or as beverage. Permission to tap sweet juice for the manufacture of jaggery is granted only if the tappers form themselves into a co-operative society. The tapping of palm trees for the manufacture of jaggery, besides serving to utilize the natural resources of the trees, also provides employment for the tappers who are affected by the introduction of Prohibition. This concession had to be withdrawn in the districts of Rayalaseema as it was reported to the Government that the concession was being widely misused there for the manufacture and sale of toddy.

Smuggling and Illicit Distillation

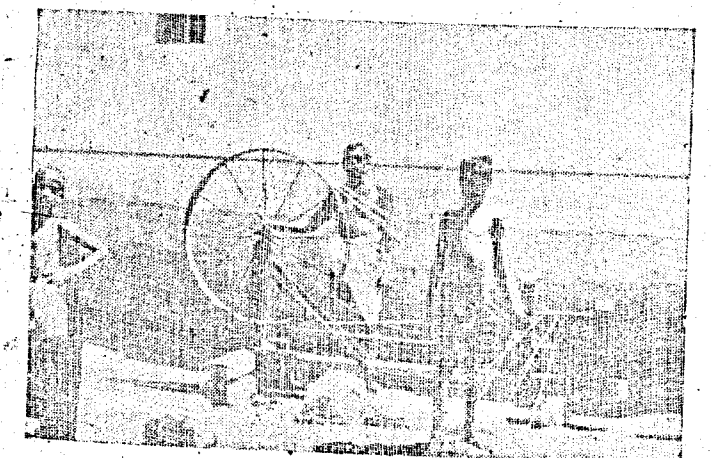
The problem of preventing the smuggling of liquor into our State from the borders of the neighbouring States has



Members of the Mahalippatti Rope and Tape-makers Co-operative Society, Mathurai Taluk, at work



The society has 85 members, including ex-tappers. About a hundred attractive varieties of rope are produced



At the wheel. In 1948-49 the society obtained finished goods to the value of Rs. 67,089 from the members

EDUCATION

Training Women In Handicrafts

Accepting the recommendations of the All-India Cottage Industries Board, the Ministry of Industry and Supply have decided to establish in New Delhi from January 1950 a Women's Wing of the Central Institute of Cottage Industries for the training of women handicrafters and high class artisans in cottage industries. The purpose of this project is to provide trained personnel to the different Central, Provincial and State Governments, Centrally Administered Areas, as well as public and social service organi-

zations interested in providing training in cottage industries and crafts to women or in organizing cottage industries suitable for women workers.

A total of 200 candidates will be admitted to the Institute in the first year. In addition to nominees of the Central, Provincial and State Governments, etc., about 50 students will be admitted direct. No fees will be charged. A certain number of stipends of Rs. 50 per mensem will be awarded to deserving trainees admitted direct.

Hostel accommodation will also be provided for students.

For the present, training will be given in eight handicrafts. The duration of the Instructor's course will be one year and only candidates who have completed their basic training at a recognized institution in any one of the eight crafts to be taught at the Institute will be admitted for this course. Arrangements have, however, been made to provide one year's basic training to those who have not already received basic training in any craft.

CO-OPERATION

Expansion Of Co-operative Facilities

Under the scheme sanctioned by Government providing free grants to rural credit societies and marketing societies for construction of godowns up to 50 per cent of the estimated cost of the building. Maharaajapuram Co-operative Credit Society in Ramnad district and Padupatti Co-operative Credit Society in Mathurai district have proposed to construct godowns at an estimated cost of Rs. 11,000 and Rs. 15,000 respectively. The Tirupattur Co-operative Marketing Society in Ramnad district proposes to construct a godown at Singampuneri at an estimated cost of Rs. 15,000. The foundation stone of these godowns was recently laid by the Deputy Commissioner of Prohibition. He stressed the various aspects of the co-operative movement and emphasized the dynamic part which a co-operative society can play in the economic, social and cultural field. "More co-operation better fitted to meet the twin demands of village improvement and agricultural development than Co-operation. As is observed by the Hon. Mr. K. R. Reddy, "Co-operation is primarily a poor man's movement. In the hands of an individual, it is a small cultivator or a small trader, but in the hands of a co-operative society, it can be a powerful force."

to stand up against the gigantic forces that lead to his exploitation. Through Co-operation he acquires strength. At the same time, the co-operative method affords sufficient freedom to the individual."

The Madras Government have been alive to the potentialities of harnessing the co-operative movement for working schemes of national improvement and have shaped their policies and programmes in such a way as to foster the growth of the movement in different directions.

The reorganization of rural credit societies which form the backbone of the co-operative movement in India has attracted the attention of many conferences and committees. In the 7th All-India Co-operative Conference and the 15th All-India Registrars' Conference held at Madras in May 1947, the view was taken that rural credit societies should take over the entire economic activity in the village. Rural co-operative societies originally conceived as multipurpose societies and provision was made in their by-laws for the carrying out of work and in subsequent years, rural credit societies demonstrated that they could successfully take up activities other than credit provided the

need for these special activities was really felt by the members, and the panchayatdars were enthusiastic enough to shoulder additional responsibilities. In order to give a fillip to the promotion of multipurpose activities in rural credit societies, Government sanctioned in November 1948 a scheme for the employment of additional staff of supervisors by central banks and have also sanctioned a subsidy of Rs. 1-30 lakhs per annum for the purpose. This is a 'two-year plan' for bringing within the fold of rural credit societies 50 per cent of the villages in the Province and one-third of the population as also to make all the credit societies undertake multipurpose activities within that period. The Government have also permitted the special staff appointed for the Amelioration side of Prohibition to attend to this work. The scheme for reorganization of rural credit societies was launched in the Province in February 1949 and by the beginning of May 1949 all the 30 central banks had begun to work the scheme. There is yet, however, a vast amount of work to be done. Provision of credit, marketing and supply of requirements of the villagers—agricultural, domestic and industrial—are the three main groups of activities which rural credit

CO-OPERATION

credit, marketing is essential. Unless the ryot is enabled to reap the full benefit of the produce raised by him, his labour will be in vain. Credit should, therefore, be linked with marketing.

Other activities which can be taken by them are promotion of thrift through systematic savings through hundi boxes or recurring deposit system and promotion of social and recreational activities.

Government have been assisting rural credit societies and sale societies for constructing godowns. Up to the period ended 30th June 1949, about 50 credit societies and 32 sale societies have put up godowns. Loans were granted repayable in 30 years to meet not more than 25 per cent of the cost of construction. Subsidy up to 25 per cent of the cost of construction was restricted to a few deserving cases. Government, however, have recently sanctioned a sum of Rs. 5 lakhs for grant of subsidy to rural credit societies and sale societies to the extent of

50 per cent of the cost of godowns, if the societies are able to raise funds by way of donations, share capital or otherwise, to meet the other half of the cost.

A godown apart from its economic benefits by way of stocking facilities offered to the ryots can be used as an office for the society which owns it. The construction of a net work of godowns-cum-community halls will pave the way for socio-economic progress in the villages. Government have under consideration the question of extending the concession of giving the subsidy also in respect of the village halls that may be constructed by the rural credit societies.

Sale societies are also encouraged to put up godowns and 50 per cent of the estimated cost of construction is given as subsidy. So far, 22 sale societies have been selected for the purpose. Sale societies have a much greater part to play in the marketing of agricultural produce than even rural

credit societies. They are associations of the producers and a net work of sale societies can help to eliminate unnecessary middlemen and secure for the ryots a fair rate for the produce raised by them.

Moreover, the existence of a chain of middlemen in the marketing of agricultural goods considerably reduced the return to the producer. If such middlemen could be eliminated and a fair share of the price secured to the farmer, the additional income he would receive thereby would be of far greater benefit to him.

Co-operative marketing has, to the extent possible under the present condition, been a success in Madras and there are outstanding examples of successful marketing on a co-operative basis.

A co-operative society is not only an instrument for economic betterment but also for the enlightenment of the higher social ideals and good citizenship.

PUBLIC HEALTH

The Malaria Institute Of India

Malaria research in India may be said to have commenced at the close of the last century with the epoch-making discovery of the mosquito cycle of the malaria parasite by Major Ross. It was soon realized that the varying problems in India could not be solved by individual workers but required a concentrated study through the medium of a well-planned organization. A Central Malaria Bureau under the direction of Colonel Sir S. R. Christopher was founded at Kasauli in 1909. Here research was started which has formed the basis of most of the systematic work since carried out on the mosquitoes of India. There was also a special reference library of the work done on malaria. A number of pioneer surveys covering several parts of India were initiated which led to a considerable extension of our knowledge both from the local and the general stand-point.

The valuable work was interrupted on the outbreak of World War I as many of the officers engaged on it were called to military duty. The Bureau was revived after the War and a number of investigations on the various aspects of the malaria problem in India were instituted by the Indian Research Fund Association. It became evident that in view of the enormous importance of malaria as cause of mortality, morbidity and economic loss, it was essential to have a wider central organization on a permanent basis, so as to provide a team of skilled workers to undertake systematic research in the various aspects of the disease and to carry on continuous and adequate investigations for its prevention and control. With this object the Malaria Bureau was expanded in 1927 to form the Malaria Survey of India under the auspices of the Indian Research Fund Association. In 1946, the Government

of India assumed responsibility for the entire organization.

The functions of the Institute are varied and are briefly narrated below:—

1. To be fully informed on all malaria problems, and to advise Government on all issues relating to malaria.
2. To initiate inquiries and investigations on malaria. To carry out such inquiries as Government may for any reason require. To assist provincial organizations in carrying out such inquiries as may be undertaken by them.
3. To undertake systematic research on all the basic facts underlying malaria transmission, prevalence and prevention.
4. To carry out epidemiological investigations, mapping of endemicity, the study of malaria statistics on

also been engaging the attention of the Government. The Union Government of Travancore and Cochin have agreed to a shopless belt area adjoining this State, in their States. The Mysore Government have already ordered the closure of shops within five miles of the dry areas of this State. The Hyderabad Government have also been similarly requested to create a shopless belt area adjoining this State. In view of the decision of the French authorities, to withdraw Prohibition from their territories, the Government are examining the steps necessary to prevent smuggling of liquor from the French establishment into this State.

Illicit distillation is the chief menace to the successful enforcement of Prohibition. Crime under this head is generally under control. During the months when important Hindu festivals like Deepavali and Pongal fall, the incidence of such crime generally shows a tendency to increase. On such occasions the preventive staff take adequate precautionary measures.

The preventive staff always launch mass raids on the notorious illicit distillation centres to book the habitual offenders and in other places offences are detected during patrols. Nowadays, the distillers carry on their activities in the thickly grown forests and poramboke lands so that when they see the raid party at sight they can run away. In such cases the staff can only destroy the contraband after due investigation. However, destruction of huge quantities of wash has the desired preventive effect. Sometimes there were assaults on the raiding party. In spite of all these handicaps, the staff have been working with great zeal to make Prohibition a success. Additional enforcement staff is being sanctioned wherever necessary. For example, recently the Government sanctioned extra staff in the Ceded Districts to put down illicit distillation. The Government are doing everything possible to make Prohibition a success, but in this vast problem of social amelioration and uplift, public co-operation is essential.

Socio-economic Effects

An enquiry into the socio-economic effects of Prohibition is being conducted by a small team of four Economic Investigators assisted by the Firka Development Officers and Grama Sevaks of the Firka Development Department. Reliable data are sought to be collected regarding changes in consumption of food, health and efficiency of the rural population, psychological, moral and social effects on the ex-addicts and their families, the results of ameliorative efforts undertaken by Government, the working of the

Kanis—hill tribes in the Papanasam Hills—with the Special Development staff



thrift agencies, opportunities for employment of ex-tappers and the economic conditions of their families. This enquiry will cover about 20,000 families in 2,000 villages.

The Government have decided to amend the Prohibition Act so as to secure a more speedy disposal of cases under the Act and also to provide for more deterrent punishment in the case of the graver offences under the Act. Some of the contemplated measures include the enhancement of the maximum punishment which may be awarded for certain offences, provision for summary trial of certain offences by Second Class Magistrates, enhancement of the punishment which may be awarded for offences under the Act by First and Second Class Magistrates, provision for the imposition of collective fines and the stationing of punitive police in areas where offences under the Prohibition law are rampant and provision for the execution of bonds by persons convicted of some of the minor offences under the Act. Legislation will soon be undertaken to give effect to these decisions.)

Chairman of City Improvement Trust

The Government have appointed Sri A. Raghava Reddy, Secretary, Madras City Improvement Trust and Acting Chairman, as Chairman of the Board of Trustees for the Improvement of the City of Madras for a period of five years.

Gifts of T.B. and Maternity Wards

The Government of Madras have accepted with thanks the offer of the Keralaeya Mahajana Sabha, Coimbatore, to construct a tuberculosis ward of 12 beds adjacent to the Tuberculosis Ward in the Government Headquarters Hospital, Coimbatore, and hand it over to the Government for maintenance.

The Government have accepted with thanks the offer of the Mathurai District Committee of the Madras Provincial Welfare Fund to donate a sum of Rs. 20,000 for the construction of a maternity ward of four beds in the Government Hospital, Usilampatti, and hand it over to Government for maintenance.

Ameliorative Work Among the Kanis

The Special Development staff are carrying on ameliorative work among the Kanis of the four Vadis in the Papanasam (Upper Dam) Hills in Ambasamudram Taluk. Village Betterment Committees have been organized in these Vadis for doing propaganda to wean the Kanis from their addiction to smoking ganja. There is considerable improvement in their economic and social condition as a result of the uplift work done by the Special Development Officer and the Rural Welfare Officer. These Kanis are mostly employed by the Forest Department and estate owners on the hills in clearing the forests and in planting teakwood saplings. The Government have permitted them to cultivate the forest lands and grow their food crops such as tapioca, cholam, ragi and maize as also sugarcane and sort of paddy called "Kadai Kanni", free of land tax. The concession granted to these Kanis to grow not more than five plants each of hemp (ganja plants) for their personal consumption has since been withdrawn now that complete Prohibition has been introduced by Government.

The Government Coach Building Factory At Chromepet

Recently His Excellency the Maharaja of Bhavnagar, Governor of Madras, paid a visit to the Government Coach Building Factory at Chromepet.

The factory is a branch of the Government Transport Department. It is located in Naval Hanger Nos. 6 and 7 at Chromepet within a furlong to the south-east of the Chromepet Railway station.

It came into existence in March 1948. In April 1948 the Government ordered the constitution of the factory with an initial capital of a lakh of rupees for machinery and about a lakh for materials for the purpose of starting construction on some buses. Later the Factory was declared as a Commercial Undertaking of the Government of Madras.

A large order for about 150 lorries was first placed by the Police Department in 1948 to meet the situation created by the Hyderabad affairs, and about 30 lorries a month were manufactured with a strength of about 450 labourers working in two shifts. This was followed by a number of orders from various Government Departments.

The factory is being gradually equipped with a number of modern labour-saving machines, wood-working machines such as Electric Circular Saw, Band Saw, Planer, etc., Shearing Machines, Drilling Machines, Gas Welding, Electric Welding Equipment, Pipe Bending Machine, Flexible Shaft Grinder, Compressor equipment for spray painting, upholstery work, etc. Different sections of work such as Blacksmithy, Foundry, Carpentry, Tinker Section, Painting and Trim Sections are at work. The present strength of the factory is about 350 workers, skilled, semi-skilled and unskilled labourers.

Over 300 coach-building jobs have been done within the last two years such as buses, ambulances, station wagons, lorries and vans of different types. There is a special designing section making individual designs for particular requirements of customers. A large number of repairs, and miscellaneous jobs, 600 in number, have also been carried out. Many miscellaneous items have been manufactured out of scrap wood and scrap steel which ordinarily would have been discarded elsewhere. The Mysore Government placed orders for 30 buses in 1949 and most of them have already been delivered.

The Chromepet Factory has undertaken work on behalf of colleges, municipalities, Government Departments like Police, Industries and Commerce, Fisheries, Electricity, Animal Husbandry, Public Works, Excise, Public Health, hospitals and jails.

Appreciative letters have been received from Heads of Departments and other satisfied customers on the quality of the jobs turned out and on the competitive rates charged. A number of distinguished visitors have also left appreciative remarks.

Steady progress is made in the factory in every section by introducing modern tools and machinery and thereby improving both quality and output.

The total turnover of the factory till now has been about Rs. 32 lakhs. This has resulted in considerable economy

to the Government Departments and institutions concerned. The factory is managed on strictly commercial lines without claiming any kind of financial concession or exemption on the ground of its being owned and managed by Government. The financial results of the working of the factory are considered very satisfactory.

House Rent Allowance

The Government have directed that the House Rent allowance granted to the subordinates employed in Madras City and certain mufassal municipalities with a population of over 50,000 be extended to Government servants working in the institutions specified below :—

Motor Vehicle Inspector's Office, St. Thomas' Mount, Office of the Deputy Inspector of Schools, Saidapet and Villivakkam Ranges, St. Thomas' Mount; Government Coach Building Factory, Chromepet; Office of the Divisional Electric Engineer, Commercial-*cum*-Construction Division at Ganapathi village, Coimbatore; Arthur Hope College of Technology, Coimbatore; Office of the Deputy Director of Agriculture, Coimbatore; Agricultural College and Research Institute, Coimbatore; Forest Engineer, Coimbatore; Papanasam Electricity System Staff working in Pasumalai Receiving Station; Mettur Electricity System Staff, working in Vellore Sub-station; District Poultry Farm, Chittoor and Cuddapah; District Veterinary Office, Tiruchicappalli; Government Mental Hospital, Kozhikode; College of Engineering, Kakinada and Anantapur; Office of the Special Assistant, Rent Reduction, Salem; Sub-Registry Office at Katpadi, Kakkotichorayur, Pallavaram and Srirangam; Superintendent, Agricultural Research Station, Hagary, Bellary; Central Jails at Rajahmundry, Tiruchirappalli, Cuddalore, Vellore and Salem; Presidency Jail for Women, Vellore; Office of the Supervisor (H), Dendalur, Eluru; Office of the Minor Irrigation Overseer, Kurnool; and Office of the Central Librarian, Kurnool.

Relief To Fisherman

The Government of Madras have sanctioned a sum of about Rs. 27,000 (Rupees twenty-seven thousand) for granting relief to the fishermen of the taluks of Divi, Bandar and Kaikatur in Krishna District who had lost their fishing materials in the Cyclone of October 1949.

Mettur Reservoir

Owing to the partial failure of the North-East Monsoon and the low storage of water in the Mettur Reservoir at present, the Government regret that it may not be possible to open the Reservoir for irrigation either on the first or seventh of June as provided for in the rules. An examination of the probable inflow indicates that in the interest of irrigation it would be necessary to postpone the date of opening of the Reservoir to about the beginning of the fourth week of June 1950. The Reservoir will, therefore, be opened for irrigation on 22nd June 1950.

Leprosy Prevention and Relief

The Government had occasion recently to review briefly the work that is being done both by Government and by private organizations in the matter of the prevention and relief of leprosy. As a result of the review, they cannot help feeling that good and commendable though the work done so far has been, the precise nature and magnitude of the problems, the best methods of dealing with it, and above all, direction and co-ordination of the activities of the Government organizations on the one hand and public and private bodies interested in the relief of leprosy on the other, have not been sufficiently and clearly defined or provided for.

The Government therefore consider that the precise nature of the problems, the steps necessary to deal with them, the areas and directions in which preventive and relief work should be concentrated on, and the administration and co-ordination of leprosy work in this State should all be determined, and a comprehensive plan and programme drawn up, so that with the minimum of expenditure and the avoidance of duplication of effort, the further spread of leprosy could be checked and existing cases of leprosy treated in the best manner possible.

Some of the heads under which the problem might be dealt with are indicated below, with brief explanatory remarks and suggestions. Other points will no doubt occur to experienced leprosy workers who have been in the field.

(1) *Census of leprosy cases.*—No definite figures of cases of leprosy in the various areas of the State seem to be available. Without appreciating the magnitude of the problem and full and detailed knowledge of the areas in which leprosy exists, there is every danger of efforts being directed in comparatively less important areas, while the problem may be rapidly assuming a serious shape in others, hitherto unknown. The Government have requested the Regional Census Commissioner, Madras, to take up, in consultation with the Central Government, the question of taking a census of leprosy cases in connexion with the forthcoming general census next year.

It is realized that any enumeration by laymen, after a brief period of training and instruction as proposed, will not be 100 per cent accurate, but it is felt that the figures would indicate, to a reasonable degree of accuracy, the relative magnitude of the need for prevention and relief in the various areas of the State. Once the areas which are disclosed as a result of the census as being more seriously affected are known, district leprosy survey units consisting of skilled medical and other technical personnel could be asked to concentrate in those areas and make a more accurate and thorough technical survey and as a result of such survey, submit specific proposals for prevention and relief.

(2) *Leprosy statistics.*—Without the collation and maintenance of statistics of leprosy cases, however approximate they may be, and without comparison of the figures from time to time, it will be impossible to gauge the results of preventive and relief work, and to determine whether the efforts of Government and other public and private bodies are really tending to check the spread of the disease.

Unless quantitative and qualitative appreciations are made from time to time, there is a grave danger of all leprosy work being mechanical and largely infructuous, those dealing with the problem believing that good is being done whereas it may well be that their efforts are not really successful. It seems, therefore, necessary to devise some simple system of statistics, involving minimum expenditure, whether by adopting the principle of random-sampling or otherwise.

(3) *Preventive work.*—In present conditions of financial scarcity it seems essential to devise methods of prevention by isolation and segregation, which could be applied voluntarily by the community as such, without much expenditure from State funds or with the minimum of such expenditure.

(4) *Leprosy relief.*—Once the areas in which work should be concentrated have been ascertained through the census proposed, relief and treatment centres should be encouraged and located in the worst affected areas in order of priority. It seems necessary in public interests to stop the haphazard establishment of leprosy relief institutions, with or without Government assistance in the less important areas, when the crying need is for such institutions in the comparatively worse affected regions.

The basis for capitation grants to non-Government leprosy relief institutions would also seem to require consideration. Possibly the grants should be confined to the treatment of actually infective and curable cases. Some system will have to be devised to secure that this is done and that Government grants are not utilized merely to maintain either incurable or "burnt-out" cases. The first priority should be for infected and treatable cases.

(5) *Training in leprosy work.*—It is being suggested that all public health staff, whether employed by Government or local bodies, should be given an adequate but simple course of instruction in the control and treatment of leprosy, enable them to spot leprosy cases, tender advice as to where relief could be sought and generally to facilitate preventive measures by means of segregation and isolation. The course of instruction may also be open to all non-official leprosy work.

(6) *Research.*—The progress made in the discovery of the causes of leprosy and the best method of treating cases are not clear. It seems desirable and necessary to know whether there is sufficient indication to suggest that such work as is being done in this State is proceeding on the right lines.

(7) *Co-ordination.*—The Government have had occasion to observe that the prevention and treatment of leprosy seem to be more or less in no man's land, neither the Surgeon-General nor the Director of Public Health nor yet the Honorary Director, Leprosy Research, having a full picture of what precisely is being done and in what steps co-ordinated action is required. It seems desirable to devise steps to co-ordinate the prevention, relief and research activities in the hands of a definite authority or authorities, so that information on the problem and progress made could be obtained readily.

Health Minister's Comments On Problem

"To start with, we must have a fairly accurate knowledge of the population affected by leprosy, the localities involved and the relative success of the various measures to keep our information up to date so that we can see where we are going, and orient our policy and our programme to deal with the situation as it may exist from time to time, until we have successfully solved the problem," observed Dr. T. S. S. Rajan, Minister for Health, in the course of his comments on various aspects of the leprosy problem. Excerpts from his comments on the note on Leprosy Prevention and Relief follow:

Census of leprosy cases.—It has now been arranged in consultation with the Government of India that the question whether the citizen enumerated is suffering from leprosy may be included as one of the questions in the census questionnaire. To facilitate correct enumeration of those suffering from leprosy, it is proposed to issue very simple written instructions to the enumerating staff.

It is also proposed to arrange for oral instruction and demonstration to enumerators on the detection of leprosy.

Preventive work and leprosy relief.—There has been a general feeling amongst many interested in the problem that leprosy cases are on the increase and that what is now being done is merely to treat a few leprosy cases, without any effective steps to prevent the spread of leprosy. I have already suggested that probably the average duration of life of an infected case, after the infection, seems to be not more than fifteen years. If we can persuade or compel all existing infective cases to undergo institutional treatment in a sanatorium, and also take steps to bring in cases which may display infection later, it seems to me that we can eradicate the disease in not more than 20 years, probably less, if every one realizes his or her responsibilities.

I realize that to secure that all infective cases are traced and treated, without being kept to endanger the healthy population, will involve the provision of additional accommodation and some extra facilities in sanatoria. But it should be possible to put up temporary sheds at a very reasonable cost. Most of the cases need attention only now and then and it should therefore be sufficient to provide additional accommodation, without any appreciable increase in personal and other facilities. Moreover, if all infective cases are spotted and treated, a concentrated effort being made in this connection, there may be no need for large numbers of sanatoria, after a period of 15 or 20 years. This is an additional reason for not spending too much money on the provision of extra accommodation. It will also be necessary to undertake legislation to compel or persuade infective cases to stay at a sanatorium and obtain institutional treatment.

In view of the importance of concentrating on infective cases, it will be most appropriate for the Government to lay down that grants will be allowed to sanatoria, only if they take in as in-patients infective cases alone, and provide separate and spare accommodation for the reception of new cases that may be spotted by workers as indicated. Government also will have inspections of sanatoria made



frequently to see that these conditions are observed and will definitely refuse grants if they are departed from to the least extent. This seems to me to be the best way in which badly infected cases can be given institutional treatment, and this will incidentally facilitate the check of the spread of the disease and provide for its control.

Segregation, particularly night segregation, is considered by many as an important measure in the prevention and control of the disease. While this may be true, I am not quite sure whether night segregation by itself will be economic and a great success in several areas.

But night segregation even elsewhere is not, in my opinion, as complete a solution as treatment in a sanatorium, under which there should be little chance of infective cases endangering the health population. Further, with modern orthopaedic and other methods, including occupational therapy, it will be possible in a sanatorium to prevent crippling. There is no use curing a patient and making him non-infective, if in the meantime he has lost the use of his limbs.

It is quite out of the question for Government to find money and staff to deal with segregation in every affected area, especially in low endemicity areas where the cost will be very uneconomic. There is however, some scope for such segregation in some areas, provided the initiative and enterprise come from the people themselves of the locality. They should be encouraged to provide facilities for night segregation in their area, in the interests of themselves and their children. Without such voluntary effort on the part of the people themselves, it will be impossible to prevent and check the spread of leprosy. In my opinion, segregation should be only complementary to institutional treatment, pending admission into a sanatorium, and not an end by itself.

Segregation should be something like an anteroom to a sanatorium where patients on the waiting list for admission can be given some treatment and enabled to avoid contact with those near and dear to them, which is dangerous to the latter. Legislation will be necessary in the interests of the public at large, to secure that infected cases do not evade segregation, as is the case at present, where facilities for segregation exist.

Training in leprosy work.—The Note before the Conference refers to the training of public health staff and non-official workers, but it seems that even the medical staff and their assistants should be given training, where required. The importance of leprosy relief being administered by medical men specially trained, and with enthusiasm and initiative, cannot be over-emphasised.

Research.—It seems to me that research on the subject of prevention and relief of leprosy has not probably proceeded on an organised basis, nor applied in the field. Experiments and research work in institutions are necessary and must be continued, but these are not sufficient by themselves. A possible course of practical research work in the field seems to be to choose an endemic area and work a control scheme as a research project. The part played by segregation, by hydriocarpus therapy and by other drugs and methods will have to be assessed in their proper setting.

College of Indigenous Medicine

The Government have decided not to affiliate the College of Indigenous Medicine to the University since the Madras University authorities have not agreed to incorporate teaching in modern medicine in the syllabuses and regulations for the contemplated Bachelor of Indigenous Medicine degree.

The Government have ordered the continuance of the curricula of studies in the college prescribed by them and also the Board of Examiners set up by them. The students who successfully pass out of the College will be awarded a title of G.C.I.M., Madras (Graduate of the College of Indigenous Medicine, Madras). The G.C.I.M.s. will be registered in the "A" Class under the rules for the registration of practitioners of Indigenous Medicine.

Rural Dispensaries

The Government have sanctioned the opening of subsidised rural dispensaries of Indigenous Medicine in the following places:—

South Arcot District Board.—Chennappaickenpalayam.

Guntur District Board.—Zampani, Narukullapadu, Hanumanpuram-Nidamanur and Gavenivaripalem.

Vellore District Board.—Mudivarthipalaiyam, Vakad, Musunurivampalem, Thadivaripalli and Dornal.

Chittoor District Board.—Rompicherla, Pannur, Nindra and Ramasamudram.

Malabar District Board.—Mannur, Mundalar, Pudupatti, Pakkavarapuram, Chapparapadavu, Pantheeramkavu, Padipottal, Mathamangalam and Peruvayal.

Chingleput District Board.—Arambakkam, Mahabali-parani, Karunguzhi, Kelampakkam, Kaliyampoondi, Nellikun, Sannambukulam and Madarapakkam.

Exploring Ways and Means to Combat Leprosy

A conference of officials and non-officials was convened recently at the Madras Secretariat with a view to discuss the ways and means of fighting leprosy in Madras State. Dr. T. S. S. Rajan, Minister for Health, presided. Sri T. M. S. Mani, I.C.S., Secretary to Government, Health Department, Dr. J. C. David, Surgeon-General, Dr. R. Subramaniam, Director of Public Health, Dr. R. G. Cochrane, Honorary Consultant Leprologist and Honorary Director, Leprosy Research, Madras, Sri T. N. Jagadisan, Honorary Secretary, Hind Kushta Nivaran Sangh, Madras State Branch, Dr. H. S. Paul, Deputy Medical Superintendent, Lady Willingdon Leprosy Sanatorium, Tirumani, Dr. S. E. D. Masilamani, Health Officer, Corporation of Madras, Sri N. Ramakrishna Ayyar, Occupation Therapy and Welfare Officer, Lady Willingdon Leprosy Sanatorium, Tirumani, Dr. K. Ramanujam, Assistant Director, Leprosy Research, Lady Willingdon Leprosy Sanatorium, Tirumani, Dr. V. Hariharan, Health Officer, Provincial Leprosy Survey Unit, Vellore, and Dr. K. Vasudeva Rao, Deputy Surgeon-General, were present.

In his presidential speech, the Health Minister outlined the policy and programme the Government propose to pursue in the matter. The policy and programme were endorsed by all present, subject to the modification that compulsion in the matter of segregation either in a regular treatment institution or in night segregation and other similar units, should be applied only in areas in which facilities for such treatment and segregation are available.

It was realised at the Conference that the proposals would involve the provision of increased facilities in clinics and dispensaries for the treatment of non-infective cases, but it was felt that it should not be difficult to make such provision. It was also agreed that while leprosy was largely a rural problem, the importance of controlling leprosy in cities, where there is bad overcrowding, should also be borne in mind.

West Godavari District Board.—Kalipatnam.

Anantapur District Board.—Palthur, Amidala, Kallumari, Thogarkunta and Thimmampalli.

Government have also ordered the payment of subsidies to rural medical practitioners and midwives working in these dispensaries with effect from 1st April 1950.

Blood Banks

Four Groups of Blood

The four groups of blood are A, B, AB and O; the last group is the most common, the majority of people falling in this category. Group AB contains characteristic features of Groups A and B, hence the name. The first three groups are less common than Group O; so the difficulty of providing supplies for A, B and AB is always left. The importance of maintaining adequate supplies of blood in all the four groups cannot be over-emphasised.

How is the blood taken, and what is done with the blood? After the donor has agreed to give blood, and the doctors are satisfied that he—or she—can give the blood, the process begins. Painlessly the blood is taken out and gathered in a bottle containing sodium citrate, an alkaline solution which prevents the blood from clotting. The blood is then tested and classified into one of the four groups. Since all types of blood are required, donors in all classes are welcomed. The blood is stored in a frigidare, where it can be preserved for ten days without being spoilt. After this period, if the blood is still unused, it can be transformed into plasma by removing the red blood corpuscles. This plasma can now be stored for one year.

Patient receiving blood and saline together. This is a case of anemia complicated by dehydration—hence the saline



In the economics of everyday life, banks play a prominent part. We deposit money—surplus earnings—for safe-keeping in banks, so that we might save something for a rainy day or have a ready source of funds in cases of emergent financial need. We do not grudge putting by a little of our earnings into 'cold storage', because we know that one day such savings will be useful to us. Similarly, blood banks are places where one stores something more precious than money—blood! Without blood there can be no life. However, the parallel ends there; for, in the Blood Bank there is a spirit of altruism, generosity and humanity absent in the ordinary bank. If one could conceive of a bank in which the money deposited is freely available to less fortunate beings, then the concept of the Blood Bank becomes clear. In the Blood Bank, blood is given not to the people who donate the blood, but to the people who stand in need of the sanguine fluid.

Blood therapy has an interesting and fascinating history, which clearly illustrates the vast amount of ignorance and superstition that existed in former days. It is surprising, however, that even in ancient times people knew the importance of the blood stream; but they lacked scientific knowledge of process and technique that alone could serve to make blood therapy an efficacious course of treatment for bodily ills. For instance, in olden times Egyptian princes bathed in blood for resuscitation and recuperation. In Rome onlookers would rush into the gladiatorial arena at the Coliseum to drink the blood of dying warriors who fought to make a Roman holiday. People then believed that by drinking this blood they would acquire the courage, fighting skill and spirit of the dying gladiators.

First Experiment

While there are intriguing references in ancient tomes to blood therapy, it is not likely that any scientific process of blood transfusion could have been evolved before 1616, the year in which William Harvey traced the course of blood circulation and enunciated the principle of blood flow. In 1654 Francesco Folli, a Florentine physician, is believed to have performed the first transfusion, but this is a doubtful point, as in all probability he might merely have described a hypothetical line of treatment. The chances are that Richard Lower carried out the first transfusion, when he connected the carotid artery of a dog to the jugular vein of another canine by a silver tube. In Paris, Professor Denys, Physician to the French monarch Louis XIV, attempted the first transfusion in human beings in June 1667, by connecting the carotid artery of a lamb to a patient.

However, complete ignorance on various points of blood behaviour as clotting and agglutination led to many fatalities, and so interest in this subject naturally declined till the nineteenth century. In 1818 James Blundell, an English obstetrician, revived interest in the subject by his researches. In 1900 Landsteiner worked out three groups of blood categories. This is important, for only after such science was blood transfusion to become an exact science. Decastello and Sturli added the fourth group. In 1907 Jansky worked out blood reactions and in 1910 Moss reclassified the four blood groups into the present system.

Useful Stand-by in Emergencies

Blood and plasma are useful in many cases of medical emergencies. Cases of accidents where there is either heavy loss of blood or severe shock need blood transfusion. In childbirths many mothers bleed profusely and will die from loss of blood but for timely transfusions. As a matter of fact in recent times blood transfusions in maternity hospitals have become a standardised procedure, resulting in the saving of many mothers and thereby their children. This point was repeatedly underlined at the Maternity Conference held recently in Madras, where speaker after speaker stressed the need for adequate blood transfusion units in childbirth clinics.

Other cases which require blood transfusions are hemorrhages (as in typhoid), burns, nutritional oedema and anaemia. In the last case it has been found in practice that two or three transfusions in a week's time would benefit the patient more than two or three months of treatment on the older lines. This shortening of time and telescoping of treatment is viewed as a particularly gratifying feature of blood transfusion therapy.

Blood transfusions are also given in cases of infectious septicaemia, puerpera, haemophilia, chronic gastric conditions, and internal hemorrhages to arrest bleeding. Patients suffering from infectious diseases are given blood obtained from convalescent patients from the same disease, for the blood of the latter develops certain anti-disease resistant elements which would help to check the disease. Blood is useful in cases of barbiturate, carbon monoxide or mercuric poisoning. Plasma is given in cases of burns, nutritional oedema, nephrosis and shock without much loss of blood.

Saving the Blue Baby

In these days of medical progress, the 'Blue Baby' danger has also been overcome by blood transfusion facilities. The Blue Baby is a rare phenomenon which invariably resulted in fatalities. The human system has a certain element called the Rh factor, which may either be positive or negative. Occasionally a baby is born with its Rh factor at variance with its mothers'. The mother's blood-stream develops certain anti-bodies, which when passed on to the baby at birth, poisons the infant's blood. The baby's blood is slowly killed, as it were, and its body turns blue with lack of live blood. In former times the stricken infant was doomed to die. But in these days of Blood Banks, the entire blood stock of the baby is drained out of the body and fresh blood infused. The Blue Baby is saved!

Dispelling Dangerous Ignorance

In spite of the beneficent activities of the Blood Banks, a vast amount of ignorance prevails regarding working of these units. People still entertain false and totally erroneous notions regarding the letting of blood, which blunders the working of a noble institution. Here are answers to typical questions regarding blood transfusions, which should help to dispel such dangerous ignorance:

Who can give blood? Anybody between the ages of 20 and 60. Sex makes no difference. In fact, ladies withstand

Am I fit to give blood? At the Blood Bank, the doctors examine prospective donors carefully, and only those who come up to fixed standards of physical well-being and are passed as medically fit, are allowed to give blood.

Will blood-letting weaken me? The taking of blood neither weakens the donor, nor does it endanger his life. The blood-letting is over very soon, and after a few minutes of rest, the donor is free and fit to attend to his normal duties. Apart from the few minutes spent in giving blood, there need be no break in the regular routine of the donor. The blood-letting will not handicap him in any way.

How often can I give blood? The Blood Banks in Madras State take blood from each donor only once in three months. This elaborate precaution, however, errs on the safe side. In Western countries, where better standards of living obtain, blood is taken in smaller intervals of time. More blood is also taken there. But in Madras, donors are given more than ample time to recoup, even though only minimum blood supplies are taken.

Blood Banks in Madras State

In Madras City there are three Blood Banks, and there are a few in the mofussil. The City Blood Banks have not only to keep blood and plasma for use in the main Government hospitals in the City, but also have to supply blood and plasma to other hospitals, private nursing homes, registered medical practitioners and hospitals in the mofussil. Naturally the demand is always greater than the supply, for a large body of public-spirited citizens ever willing to donate blood regularly, has yet to be created. At present the main sources of blood is from the poorer classes, who queue up daily offering blood against the modest remuneration of five rupees given to each donor. Since economic necessity compels these poor people to give their blood, great care has to be taken to see that they do not misuse their own bodies by giving blood too frequently for their own good.

Pandit Nehru sometime back set a glorious example by offering his blood for a Blood Bank in Calcutta. If every right-thinking citizen understands the ideals that govern the working of the Blood Bank, more than adequate supplies of blood and plasma can be built up out of donations from purely voluntary donors.

Such a gift would be real service, an act of heroism even as plunging into a river to save a man from drowning or dashing into a burning house to rescue a screaming infant. Who knows, circumstances may lead to the donor himself being saved by his own blood!

Gift of Maternity Ward

The Government have accepted the offer of Messrs. A. M. Chidambaram Chettiar and Sons, Nagapattinam, to construct a maternity ward of six beds at a cost of Rs. 15,500 in the Government Hospital, Nagapattinam, and to hand it over to Government as a gift.

The Government of Madras have accepted the offer of Sri B. Bhujanga Rao of Ootacamund to construct a waiting room adjoining the dental clinic of the Headquarters Hospital, Ootacamund, and hand it over to Government.

How To Cook Eggs

The most important principle to follow when cooking eggs, either in water, frying-pan or oven, is to cook them on a moderate fire. Like all protein-rich foods, eggs cooked with a high heat have a tendency to become stiff and leathery.

When making custards or other similar dishes where hot milk has to be added to the egg, it is always safer to mix the sugar with the egg and not with the milk in order to prevent curdling. Also, hot liquids should always be added to the beaten egg, a little at a time.

Eggs should never be over-cooked. Here are some common ways of cooking eggs, either for breakfast or meals:

IN SHELL

For boiling eggs they should always be covered fully with cold water and then gradually heated to boiling point and not plunged in boiling water to begin with.

For soft-boiled eggs, boil for 3 to 4 minutes, break into a cup or dish and serve after seasoning.

For hard-boiled eggs, boil for 7 minutes.

FRIED EGGS

For frying, eggs are broken into a saucer and slipped into a frying-pan containing melted butter or vegetable oil. They are then cooked over a moderately hot fire until the whites are set. Serve after sprinkling with salt and pepper to taste.

POACHED EGGS

Break the eggs into a saucer and gently slip into boiling salted water just enough to cover the eggs, in a shallow pan. Boil, remove from fire and cover. Let it stand for about five minutes till the eggs become firm. Carefully remove the eggs from the pan and serve on toast. Add salt and pepper to taste, and also a little butter if required.

Poached eggs can also be served on a bed of seasoned spinach or other greens.

SCRAMBLED EGGS

Beat two eggs with two tablespoons of milk and season with salt and pepper. Pour into a frying-pan containing melted butter or ghee. Stir continuously over a low fire until it thickens. Serve hot.

Scrambled eggs add variety to the usual egg-dishes, for they have a different flavour.

SCRAMBLED EGGS WITH TOMATOES

Beat three or four eggs and add to the beaten eggs one cup of cooked tomatoes. Season with salt and pepper and cook in the same way as plain scrambled eggs and serve on toast.

SCRAMBLED EGGS WITH BREAD CRUMBS

Beat three or four eggs with four tablespoons of milk and season with salt and pepper. Brown one cup of bread crumbs in a little ghee in a frying-pan, pour the egg mixture

over the crumbs and fry on a moderately hot fire, stirring continuously until the eggs are thickened. Chopped onion or green pepper can be added into the egg mixture before cooking, if extra flavour is desired.

OMELETTE

The chief ingredients for an omelette are one or two eggs for each person, one tablespoon of milk for each egg, and salt and pepper to taste. For a fluffy omelette, the egg-yolk and whites are beaten separately; for the flat omelette, all the ingredients are beaten together.

PLAIN OMELETTE

Ingredients.—Two eggs, salt and pepper to taste, butter or ghee for frying.

Separate the whites from the yolks and beat the whites until they are stiff. Then beat the yolks, mix together and add the seasoning. Heat a little ghee in a pan and pour half the mixture. Fry on both sides until brown, fold over and serve hot. Repeat with the other half of the mixture.

CHEESE OMELETTE WITH HONEY

The recipe for this is the same as for plain omelette, except that a filling of grated cheese and a little honey is added before the omelette is folded over.

Ingredients.—Two eggs, one big tomato, 10 tolas cooked green peas, one onion, green chilli, pepper and salt to taste, butter or ghee for frying.

Separate the whites from the yolks. Beat the whites until they are firm. Beat the yolks and mix with the whites. Chop the onion, tomato and green chilli. Add the chopped onion, tomato, cooked peas, chilli pieces and the seasoning; mix well. Heat a little ghee or butter in a pan; pour half the mixture, brown on both sides, fold over and serve hot. Repeat with the other half of the mixture.

PAKORAS WITH EGGS AND CHEESE

Beat two eggs. Add one ounce of finely grated cheese mixed in a little milk and half-a-cup of custard powder. Season with chilli, salt and dhania to taste. Mix together, make pakoras and fry them in deep fat.

EGG CURRY

Ingredients.—Three eggs (hard-boiled); three potatoes; two tomatoes; onion (sliced) one; butter or oil two tablespoons; ginger one small piece. Green chilli to taste.

Masala for grinding.—Dhania one tola; dalcini one small piece; fresh cocoanut one tola; garlic two flakes; black pepper, mustard, haldi and red chilli to taste.

Method.—Grind the masalas. Warm the oil in a degchi. First fry green chilli and ginger and then sliced onion. Add the ground masala, fry for two to three minutes, add cut pieces of potatoes. Cover and cook for about 10 minutes with two cups of water. Add the eggs halved, and slice of tomatoes and cook covered for about five minutes on a slow fire. Serve hot with chapattis or rice.

(Food and Nutrition)

Review Of Electricity Construction Work

Moyar Hydro-Electric Scheme.—The diversion weir and head-works at Singara were completed except for clearing site, which was in progress. Major portion of the work on Singara flume was completed. Masonry in the overflow and non-overflow sections of the Maravakandi Dam was continued. About 33 per cent of the bund formation at either flanks of the dam were completed and further work was in progress. Formation of the earthen bund of the Moyar Forebay was 65 per cent complete. Masonry and concrete sections of the bund were completed. Concreting for machine and stanchion foundations for the Powerhouse was to be taken up and benching for the transformer yard was almost completed.

Pykara plant extensions.—Excavation for the Pykara Dam between ch. —65 to —45 was in progress. Between ch. 355 to 385 and D.S. Nos. 30 to 95 excavation was completed to average R.L. 6638 and Masonry built to R.L. 645. The masonry between ch. 340 to 400 was raised to R.L. 6666. Grading work for the penstock line was completed in all the reaches along the penstock slope for the IV penstock line except the reach between anchor 2 and Powerhouse. Construction work on anchors and piers in the upper reaches was in various stages of progress. Excavation at the Powerhouse was just commenced.

Pykara-Moyar-Erode 110 KV line.—The Erode-Satyamangalam section of the line was completed and test charged. Work on telephone line and civil works at sub-stations and patrol stations was almost completed. Out of the total of 412 tower locations and a route length of 84 miles, erection of towers at 3 locations, stringing of conductors for 2 mile length of line and earthwire stringing for about 36 miles remained to be done and these were in progress.

Papanasam plant extensions.—All miscellaneous works were in progress. Turbine parts for the IV Unit generator have been transported to site and arranged. The turbine pit was being prepared to receive the machine.

Madura Thermal Scheme.—Construction of the Powerhouse building was progressing. Erection of the boilers was being started. Construction of the cooling pond was nearing completion. Erection of poles at Pasumalai end of the 33 KV line from Pasumalai to Samayanallur was completed and at Samayanallur end, erection of poles was under progress.

Madras plant extensions.—The erection of the superstructure of the Natural Draught Cooling Tower No. 2 was under progress. All the R.C.C. columns of the tower have been concreted and the shell was in progress. Arrangements were made to commence the piling for auxiliary work at 'B' Station.

Nellore Thermal Scheme.—C.R. masonry walls for the cooling water pond were continued. M.B. Sheds for the power sets were almost completed. Erection of the transportable power sets was in progress. Aligning of the turbine, feed and air-heater unit has been done for both units. Condenser unit has been assembled and boiler tested. Further work was in progress.

Coimbatore District Scheme.—The Damsite-Bellary section of the 66 KV Transmission line was completed and

energised on 23rd March 1950. In the Bellary-Guntakal section, conductor wire was paid out and insulators fixed upto location 50. The 33 KV line from Bellary-Adoni has been completed except for mufing, coping and painting for a few locations. This line was tested and energised on 30th March 1950. Construction of staff quarters at various sub-stations was under different stages of progress.

Hindupur Scheme.—The 33/11 KV line has been completed. Erection of transformer plinths at Hindupur S.S. was in progress. Overhauling of the 500 KVA power Transformer diverted from Arkonam is under progress.

Machkund Hydro-Electric Scheme.—Work on coffer Dam II stage for the Diversion Dam was continued. Earthwork excavation for flume and Tunnel Pond Dam was in progress. Masonry work for the Diversion Dam was started and about 26 units were done. Tunnelling for a length of 63' and 70' at entrance and exist respectively has been done. Grading of penstock and Powerhouse site was in progress.

Tree cutting and clearance in Visakhapatnam-Rajahmundry, Visakhapatnam-Machkund and Tennuboddavara-Nellimarla sections were in progress. Construction of buildings in the various camps was in different stages of progress.

Labour strength during the month was 5,268.

Vijayavada Powerhouse extensions.—Laying cement concrete in foundations for the alternators 4 and 5 was completed. Concrete for economisers 4 and 5 was laid. Some of the fabricated structural steel have been received.

Visakhapatnam Powerhouse extensions.—Erecting the compound wall for the Powerhouse and fifth Boiler was completed.

General.—Work on other transmission lines and sub-stations was proceeding satisfactorily.

Details.	Operation Branch		
	Hydro-systems*		
	Pykara system.	Mettur system.	Papanasam system.
Units generated.	25,414,500	4,259,000	6,201,600
Peak load of station.	43,100 KW	12,800 KW	18,300 KW
System peak	32,400 KW	26,750 KW	16,200 KW
Services connected—			
Agricultural ..	119	55	16
Industrial ..	2	1	2
Domestic ..	312	197	255

Due to further deterioration of the water conditions at Mettur with consequent low power output, a further cut of 10 per cent in the industrial consumption was imposed in the Mettur system only with effect from 1st March 1950, essential users like agricultural consumers being exempted from the cut.

Throughout the month all the three hydro-systems were running in parallel.

The total outturn of the Mettur Workshops for the month was Rs 1,24,140.

Thermal systems. Andhra Power System.

Details.	Vijaya-wada.	Visakhapatnam.	Kakinada.	Cuddapah.	Kurnool.	Anantapur.	Madras Electricity System.
1. Units generated.	1814040	1027310	1223963	58640	60559	19426	10.89 millions.
2. Peak load of station.	4096 KW	2600 KW	780 KW	140 KW	185 KW	79 KW	24,600 KW.

Services connected.

	Andhra Power System.			Madras Electricity System.		
Agricultural ..	..	..	2	..	..	12
Industrial ..	..	..	5	..	..	8
Domestic ..	..	..	83	..	..	222

General.—Ten extensions costing over Rs. 10,000 and less than Rs. 30,000 each were sanctioned by the Chief

Engineer and Chief Operation Engineers at an estimated cost of Rs. 1,56,850.

Fatal Electrical Accidents

Recently in Perambur two persons died of electric shock in a house when one of them tried to dry a wet bath-towel on a galvanized iron wire strung across the courtyard and the other went to rescue him. Investigation showed that the iron wire had become electrified due to leakage of electricity from a badly done extension of wiring put up across the yard to a bathroom, some time previously. A joint in this wiring had not been properly taped and was touching some galvanized iron sheets to which the galvanized iron wire had been tied, making the iron sheets and wire dangerous to touch.

Electricity is perfectly safe when the wiring is properly done by competent persons. But bad wiring work though cheap may result in such fatal accidents. Since electricity can flow freely in iron wires and in iron sheets, particular care should have been taken when fixing the electric wires close to them. This had not been done. All additional wiring when put up must be got tested by the electricity supply authority as required by rules. This also had not been done. Arising out of this accident, consumers are particularly advised to pay attention to the following:

(1) Only competent wiremen or wiring contractors should be employed for wiring houses or putting extensions. Cheapness does not pay since it may involve life.

(2) All extensions should be got tested by the electricity supply authority before bringing them into use. Any defects in installation are likely to get revealed then and can be rectified before causing danger.

(3) Wiring will get old and deteriorate and then electricity will start leaking: or the covering of wires will get worn out due to constant rubbing or swinging or get cut or bruised by careless working. The live wire inside will then get exposed and may cause a fatal accident. So all wiring installations should also be got tested once in two years at least, so that such weak points may be noticed in time and rectified.

It is incumbent on house owners having electrical installations to see that they are always maintained in condition.

Cut in Power Supply

The water position in Pykara, Mettur and Papanasam Hydro-electric Systems has deteriorated further, considerably, during the last few weeks. The summer inflows into the reservoirs have been very poor. Usually, a few summer showers occur in April, but this year these too have failed. Due to unprecedented drought in Mysore State, the flow in the Cauvery River this summer is much below the normal. The reservoir level at Mettur is, therefore, dropping rapidly. Fresh flows can be expected only late in May or early in June when the south-west monsoon sets in.

Due to these factors, the 40 per cent cut in consumption recently imposed in the Hydro-electric Systems of Pykara, Mettur and Papanasam is found to be inadequate to meet the power situation. A further cut of 10 per cent in consumption has become unavoidable and has been imposed on all power consumers in the Pykara, Mettur and Papanasam Systems with effect from 1st May 1950. The total cut is therefore 50 per cent in consumption in each of these three systems. The position is particularly bad at Mettur and hence an additional cut of 10 per cent in demand on all H.T. consumers in the Mettur System has been enforced from 1st May 1950.

Essential requirements of hospitals, agriculture, public water-supply, drainage pumping, etc., will, however, continue to be met in full as hitherto. The Government very much regret the inconvenience caused to consumers by this power shortage and consequent cuts caused by the failure of monsoon and request the continued co-operation of the public in tiding over the present difficult period till the onset of the monsoon. The cuts will be withdrawn as soon as the water position in the hydro-electric systems returns to normal.

Primary Health Centres

The Government have directed that in view of the imperative need for economy only 10 out of 25 Primary Health Centres already sanctioned by them need be opened for the present in the firkas selected for intensive rural reconstruction work.

Sugar Production in Madras.

"The sugar industry is one of our important national assets, second in importance only to cotton textiles. It must be placed on a stable basis," declared Sri A. B. Shetty, Minister for Agriculture, presiding over the function at the Sugar Factory, Pandyarajapuram. Pleading for all-out efforts by research workers, growers and factory people to maximise production and bring down prices—at present 'highest in the world'—Sri A. B. Shetty stated that the target of production has been fixed as 16 lakhs of tons of sugar at the end of five years.

Sri A. B. Shetty said: There is great need for the expansion of the sugar industry especially in this part of the country at present. The sugar industry is very much in the public eye today. The sudden scarcity created by interested parties and the abnormal rise in the price of sugar during the latter part of 1949 has brought odium on the sugar industry and trade and it has created a great uproar in the country. The liquidation of the sugar syndicate and the withdrawal of protection have followed it as the result of the recent enquiry by the Tariff Board. An enquiry into the sugar muddle will shortly be instituted by the Central Government. These are deplorable matters of serious concern to the sugar industry in this country.

Patel's Appeal for More Production

In view of the prevailing shortage of sugar in the country, Sardar Patel has made an appeal for the maximisation of production during the current season so as to increase the output of sugar by at least one lakh tons over the last season and achieve the target of 1.1 million tons. The Central Government have decided to give certain concessions and facilities to factories which show increased production in this season. Factories in several part of the country have started crushing earlier in response to the appeal of the Deputy Prime Minister. It is doubtful whether the target figure of 11 lakhs tons will be reached.

Factories are not getting adequate supplies of cane on account of the high prices of *gur* prevailing at present. The unwillingness of cane growers to give sufficient sugarcane to the factories has created a critical condition for several of the factories. This factory has had to face much opposition from the cane growers in this area as it had taken no steps to enter into any agreement with them regarding the supply of cane. The Madras Government have tried to do the best they can for helping this factory by bringing about a friendly settlement between the factory and the ryots growing cane in this area.

Area under Sugarcane

The area under sugarcane in this country varies from 3½ to 4½ millions acres depending on prices of cane and *gur* in relation to alternative crops. India is said to be today the largest sugarcane growing country in the world. But the average all-India yield is comparatively very small, being 14 tons per acre as against 62 tons in Hawaii, 56 tons in Java and similar high yield in other countries. The area under sugarcane in India is unevenly distributed. The industry is concentrated in the U.P. and Bihar States

which produce the major portion of the total sugar in this country.

The number of factories working in Madras is 11 out of 134 in the whole of India. The average production of sugar here is 50,000 tons and we have to import an equal quantity from U.P. and Bihar to meet our requirements. The Tariff Board have criticised the lopsided development of the sugar industry in our country and urged that steps should be taken to remedy the blunders of the past. The tropical conditions of South India are considered more suitable for cane development than the sub-tropical conditions of North India. The average cane yield per acre is about 29 tons in Madras and Bombay as against less than 15 tons in other States. The future expansion of the industry should therefore be preferably in Madras and Bombay.

Highest Prices in the World

The sugar industry is said to be the second largest industry in this country with a capital investment of Rs. 35 crores. Twenty million people are engaged in cane cultivation and jaggery manufacture. About 1½ lakhs of people are employed in sugar factories. The present consumption of sugar in India is only 6 lb. per capita. This is much lower than the per capita consumption in other countries. But the demand for sugar is growing at present and the industry is not able to produce sufficient quantities to meet our requirements.

The price of Indian sugarcane is said to be the highest in the world. The price of sugar also is higher than in other countries. This high price retards the consumption of sugar in this country and it prevents the adjacent countries from getting sugar from India. It is true there is no danger of foreign sugar being dumped into this country at present on account of hard currency shortage. But India may have to face foreign competition sooner or later, unless we are able to increase sugar production and reduce its price.

Problems before Industry

The most urgent problem before the Indian sugar industry today is improvement of the yield and quality of cane and reduction of the price of sugar with a view to bring it in line with the prices prevalent in other countries of the world. The present high price is mainly due to the price of cane which represents about 60 per cent of the cost of sugar. The solution lies in the improvement of cane cultivation to augment the yield of cane per acre and reduce the cost of its production. The quality of the cane must be improved so as to raise its sucrose content. Further the ryots should be induced to grow early and late ripening varieties so as to enable the mills to prolong the duration of their crushing season and thus reduce their cost of production.

Proper irrigation facilities should be provided. Adequate supplies of the proper kind of manures and fertilisers is as essential as the introduction of improved varieties for stepping up production of cane. The factories should help cane development in their respective zones and they can be induced to do so if the supplies of the reserved areas

are assigned exclusively to them. Some of the factories in Bombay as well as in Java and other countries have their own sugarcane farms in the neighbouring areas. This enables them to grow canes of their choice and adopt up-to-date methods of cane cultivation instead of depending for their cane on a large number of small growers who cannot take to progressive cultivation.

Payment of Premium

The ryots benefit by increase in yield per acre while the industry benefits by increase in the sugar content. Cane is paid according to weight and not on sucrose basis. Government have been obliged to adopt this flat rate of payment on tonnage basis because the calculation based on recovery is an elusive method and the illiterate ryots cannot understand it and much less check the recovery data. Payment of premium for special varieties and the adoption of varietal schedule by factories are essential to encourage growers to raise quality canes with high sucrose content.

Scientific research on cane has in the past made a notable contribution to the evolution of better varieties. The improved Coimbatore varieties of cane have spread over 85 per cent of the area in India and they have been introduced in other countries also. The Indian Council of Agricultural Research in New Delhi has sponsored valuable work in regard to sugarcane crop and this work has been taken over by the Indian Central Sugarcane Committee since its formation in 1944. The Committee has formulated a five-year cane development programme which is being worked about by the various State Governments.

Development Schemes in Madras

Madras has taken up this development scheme in March 1949. Four liaison farms have been started in the factory areas of Samalkot, Hospet, Nellikuppam and Kulittalai. Twenty-four Special Agricultural Demonstrators have been appointed for concentrating and intensifying propaganda work in 24 taluks in 13 important sugarcane districts. The Madras Government have constituted a committee for examining the technique of sugarcane cultivation of the varieties suitable for the several factory areas in this State and to suggest ways and means to improve the quality and yield of sugarcane and bring about a reduction in the cost of cultivation. The cost of manufacture will not admit of any large reduction unless the overheads are brought down by the extension of the cane crushing season or by having cane of higher sugar content and larger recovery per cent. It may be possible to effect some economy by increasing the technical efficiency of factories.

Most of our factories were established in the period of 1932-34. No replacements and renewals of their machinery seem to have been made due to the difficulty in importing machinery and the high prices that have to be paid for it at present. Improvement of technical efficiency is not possible without overhauling and renewing the machinery. The factories must be economic units. Factories with capacity of less than 800 tons per day are said to be uneconomic. Only four factories in Madras can therefore be regarded as economic units. Profitable utilisation of the by-products of the sugar industry is another step to bring

down prices. The development of power alcohol out of molasses would enable the sugar industry to utilise an important by-product and effect economy.

The sugar industry is one of our important national assets, second in importance only to cotton textiles. It must be placed on a stable basis. The target of production has been fixed as 16 lakhs tons of sugar at the end of five years. The present production is about 10 lakhs tons and it can go up to 14 lakhs tons with the present capacity of our factories. Government will give all the assistance and encouragement that is needed for the improvement and development of the sugar industry with a view to enable it to meet our growing requirements and to lower the cost of production. The research workers, growers and the factory people will have to put forth combined efforts to maximise sugar production and make it available to the consumers at reasonable prices.

Amendments to Madras Sugar Factories Control Rules, 1949

The Government have issued amendments to the Madras Sugar Factories Control Rules, 1949 :—

(a) prescribing the form in which the sugarcane grower may offer to sell sugarcane which may be grown by him to the occupier of the factory under Section 10 (1) of the Madras Sugar Factories Control Act, 1949.

(b) prescribing the form for the agreement which the occupier of the factory has to enter into with the sugarcane grower for the purchase of sugarcane offered by him as required by Section 10 (2) of the said Act.

(c) prescribing the form for the register showing the names of sugarcane growers who offered to sell sugarcane to the occupier of the factory and the manner in which such offers were dealt with, which each occupier has to maintain with reference to Section 10 (4) of the said Act, and

(d) prescribing that the agreement between the occupier of the factory and the sugarcane grower should be executed before the 30th April of each year for the crushing season from November immediately following.

These amendments and forms have been published in an Extraordinary Issue of the *Fort St. George Gazette*, dated the 15th April 1950.

The forms to be used by the growers of cane or occupiers of factories may be in manuscript or in print, according to convenience.

National Savings Stamps

Consequent on the introduction of the National Savings stamps, the Government of India have decided to withdraw the stock of Defence Savings stamps in Post Offices. The rules concerning the supply and distribution of stamps have been revised to enable the exchange of Defence Savings stamps held by the post offices with National Savings stamps or with postal stamps or stationery.

Protecting Our Birds

By Lieut.-Col. R. W. BURTON, I.A. (Retd.)

Quite apart from a sentimental value, birds render incalculable service to man. Without their protection, our crops, our orchards, our food supply would be devoured by hordes of ravaging insects. Birds are the principal agency that controls the enormous multiplication of insect life which, if unchecked, would overwhelm all life on this planet.

There are 544 species of wild birds in Southern India alone. In the whole sub-continent of India there are more than 2,100 species. Of all these birds only a very few are in any way harmful to mankind. In some seasons under certain conditions of climate the plagues of rodents would make occasional famines; without the hawks and the owls rats and mice would so multiply as to be a devastating plague.

A number of other countries have Bird Sanctuaries formed under Acts and Rules of the Government. In Ceylon there are upwards of 20 such sanctuaries; in India almost none.

Some people look upon birds of prey as enemies to man. That is quite a wrong view. All the owls are wholly beneficial as their food very largely consists of rats and mice. Nearly all the smaller hawks are friends of man, for many of them feed on insects of the larger kind—grasshoppers and the like. Some of the larger birds—eagles and lesser-eagles—do take some game birds, but they also kill many destructive vermin. It is on record that when rats largely increase, as they have been known to do in times of famine the number of hawks also enormously increase. Thus Nature preserves the balance. In these days of scientific research, therefore, no bird should be condemned to extermination by the uninstructed. The scientist alone should decide.

Crime against Humanity

Again, there are some people who kill egrets, storks and herons for food. Such acts are anti-national and cause great harm, for these species are of the greatest service to the cultivator by reason of the habits of feeding on the harmful crabs which are such a pest to the paddy cultivators. They also eat many harmful insects; the small cattle egret is particularly useful as it is almost entirely insectivorous in its habit and passes its life in the service of man—cleaning his fields of harmful insect pests and his cattle of their noxious parasites. Grasshoppers, locusts, beetles, bugs, ticks, and blood-sucking and biting flies form their ordinary diet. It is a crime against humanity to kill any kind of egret, stork or heron.

Perhaps the parakeets, of which South India has five species, have to be placed on the black list. It is difficult to deny that they do much harm to man's food supply. In some parts the Indian Blue Rock Pigeon eats much grain, and the Doves of the Plain take heavy toll also. The House Sparrow is also an eater of grain and seeds. But he can feed for himself and there is no need to wage war against him. Kites? Well, kites take an occasional chicken and there are some unguarded food, but they also eat all sorts of beetles, caterpillars, crabs and the like,

and are useful as scavengers. Against them war need not be declared—not as a species—while the poultry farmer may be allowed to defend his stock against them in such manner as suits him.

Four Classes of Birds

Birds may be placed, for purposes of conservation, in four categories:

Class I—Game Birds, being Scratchers;

Class II—Shore Birds, being Walkers and Waders of all kinds;

Class III—Water birds, being Swimmers of all kinds; and

Class IV—All other birds.

During the past sixty years and especially after World War I and again even more so after World War II, the very abundant stock of Class I has woefully diminished. There are several reasons for this. There has been the loosening of the provisions of the Arms Act, the great increase of firearms possessed by the cultivating class, and these largely used not for crop protection but for the killing of many species of insect-eating birds upon whom the farmer should rely for protection from the many pests which attack his crops, his fruits, his cattle and his timber: the ignorance of the provisions of the Wild Birds and Animals Protection Act of 1912 both by officials and by the public; the shooting of birds during the breeding seasons and the snaring and netting of game birds for food or for sale to hotels, eating-houses and Municipal markets, all over the country and regardless of closed seasons by tribes who have pursued this as their occupation for generations untold.

The Greatest Destroyer

Wild life can contend with the natural laws of Nature, but cannot at the same time compete with the terrible destruction wrought by mankind, the greatest destroyer of all! Wild life is a heritage received from previous generations and it is the obvious duty of those now living to pass it on in appreciable measure to those who will come after. Soon there will be but few game birds left. Bustard have almost gone from South India, florikin are exceedingly scarce; in some parts of the country partridges are being so persecuted that they will be reaching the vanishing point—which is when they will be so few in number as unable to contend with the forces of Nature, the hawks, rats, cats, mongooses, snakes and other natural enemies which prey upon them—then they will be done.

Storks, herons, egrets and bitterns are all beneficial to man, yet these useful birds are being slaughtered for food. Apart from migratory birds, some indigenous birds are also being slaughtered—the Courier Plover, the Indian Ringed Plover, the Stone Curlew and others. The owner of a gun should put away his weapon from 1st October until 15th March and save wild life for posterity.

Saving the Swimmers

In Class III—the Swimmers—there are five species of migratory duck and teal, three species of pelicans,

cormorants and darters, one kind of grebe (which is a tank water-bird not to be molested) and ten species of river and sea-birds, all of which should be protected from killing for food. Indigenous duck and teal are being much reduced in number by taking of their eggs during the breeding season and netting of them (also the migratory duck) at other times. No netting of birds on land or on water should be done. Wild life cannot exist against such massed slaughter in which there is no sport and no other consideration than gain for greed of money or for food.

All classes of people should conserve wild life by refusing to buy birds offered for sale by any person in markets. Where there are no buyers there would be no sellers, and the trade would die out. The germ of such sound public opinion is in a village near Madurantakam, 40 miles from Madras City, where the people pride themselves in the protection they have afforded to bird-life, especially water-birds, for a number of years. They jealously guard their sanctuary and allow no shooting, only the use of cameras. Here is a most laudable example for other parts of Madras State, and India too.

Planting Trees for the Birds

Planting of trees has been enjoined on the people from time immemorial by many religious leaders, but in recent years the habit has somewhat deteriorated. It is not only for shade, for holding up of soil of hill-sides and river-banks, for timber for all agricultural purposes, for fuel, for a number of medicinal purposes, for cattle fodder and many other needs that trees are necessary to village life. Many varieties of trees which fruit at different seasons are valuable to the village community because they attract many kinds of birds which protect crops by eating insects.

Some of the trees are so well known as to scarcely need mention. The tamarind, banyan and peepul are among these; of other trees there is the *Bahera* (Tamil—*Tani*, Telugu—*Tandi*), the fruit of which is eaten by cattle, sheep, goats and deer. The growth is rapid and the seeds give a medicinal oil. A relative of this tree is the *Chebula* (Tamil—*Kadakai*, Telugu—*Karaka*) for the wood, fruits and bark are used. Another valuable relative is the *Arjun* (Tamil—*Vella Mardu*, Telugu—*Yermadli*). All trees of this family grow well along the banks of streams and hold up the soil from erosion. In some parts of India they are of great use in keeping rivers to a straight course.

Attracting the Birds

Then there is the *Mahua* (Tamil—*Iluppai*, Telugu—*Ippa*), a large evergreen whose flowers are eaten by man and beast. This tree grows well on isolated waste land and should be planted in all village areas. The well-known *Bombax* (Tamil—*Ilavam*, Telugu—*Bunga*) attracts many kinds of birds. The cotton is useful for stuffing pillows, the leaves are not eaten by pests, the trunk gives a brown medicinal gum, the tree seeds very freely, the seedlings come up abundantly and grow rapidly. The India Coral Tree (Tamil—*Murukku*, Telugu—*Badida*) attracts many birds when in flower, and is both ornamental and useful as a shade tree and hedge-plant; being armed with numerous prickles it keeps cattle away from fields and gardens. The loppings are valuable as green manure, the soil benefits from its presence. It grows readily from

seeds or cuttings; cuttings six feet long by three inches across root readily when planted.

Every village should have a tree-planting plan regulated by the elders of the community. Birds, the land and Nature would benefit immensely.

Board of Film Censors

The Government have constituted a Committee consisting of the following members of the Board of Film Censors to examine and certify short films and documentaries which are suitable for being declared as "APPROVED FILMS":—

- (1) The Director of Information and Publicity.
- (2) The Deputy Director of Public Instruction in charge of Visual Education.
- (3) Sri Narla Venkateswara Rao.
- (4) Sri R. Krishnamurthy.
- (5) Srimathi Manjubhashini.
- (6) Srimathi Snehalata Reddy.
- (7) Sri C. Ramachandran Pillai.
- (8) Dr. C. Achyutha Menon.
- (9) Sri Kuruvilla Jacob.
- (10) Mrs. A. C. Krishna Row.

The Deputy Director of Public Instruction in charge of Visual Education will act as Chairman of the Committee, subject to the control of the President of the Board of Film Censors.

House Sites to Municipal Employees

Government have passed orders that the grant of house-sites at concession rates by the municipal councils, hitherto limited to those municipal employees drawing a pay less than Rs. 50 per mensem, shall now be extended even to those drawing less than Rs. 85. This order has been passed in view of the revision in the scales of pay of municipal employees.

Terms of Panchayat Members Extended

Consequent on the postponement of the elections to Panchayats for a period of three months, the Government have decided to extend the terms of office of the present members of all Panchayats up to the noon of 1st August 1950.

Inside a tamarind grove

Minerals For Milch Cows

By Sri C. BALASUBRAMANIAM, B.A., B.Sc. (Ag.), Agricultural Meteorologist, Coimbatore

In these days of non-availability of fodder and concentrates of good quality at reasonable price, the problem of feeding milch cows has become a serious one indeed. Milk forms an indispensable adjunct in human nutrition. So milch cows have to be maintained and the problem of their proper maintenance has to be solved. Perhaps the State and the public may have to play an equally important role in this matter. In this short note it is proposed to suggest cheap measures to mitigate the serious after-effects for certain deficiencies in the ration fed to dairy cows. Fodder and concentrates are to be fed in the usual manner. The best out of the feed given can be made available for the nutrition of milch cows if the following suggestions are adopted in practice. The *summum bonum* of these suggestions will be the inclusion of certain cheap constituents like mineral mixture and common salt in the daily ration of the cows in milk.

The mineral mixture is nothing but a mixture of burnt shell lime and steamed bonemeal mixed in equal proportions. At times three parts of shell lime and two of bonemeal are also recommended for feeding highly stunted cows in localities of high calcium deficiency. This mixture is very rich in calcium and phosphorus. In fact, these are the two main minerals that control the entire mineral balance of milch cows. They occur not only as combined minerals in the body but are so intended by nature that "an inadequate supply of either in the diet limits the nutritive value of both". In addition "they are stored in nearly fixed proportions in bones and secreted in nearly fixed proportions in milk".

Nutrition Factors

The two inter-related factors influencing the nutrition of these two important minerals are:—(i) the amount and proportion in which they are present in the ration and (ii) presence of Vitamin D in the feed. Under South Indian conditions, cows get plenty of Vitamin D, not only from the bright sunlight that they get when they move about during daytime to graze in pastures, but also from the green pasture, very rich in Vitamin D.

Views of the foreign workers in this line may be divided in regard to the possibility of maintaining heavy milkers in positive calcium balance. Their findings may be true in consideration of the local weather conditions and high-yielding nature of cows, say even to the extent of 60 to 80 lb. per animal per day. Under the natural conditions obtainable in Madras Presidency, such heavy milk yields are not generally common. So some suggestions are offered towards meeting the mineral requirements of cows in milk in our Presidency.

In areas where the soil is deficient in lime or phosphorous like Malabar, Kurnool, Cuddapah, North Salem, the Nilgiris, portions of taluks like Dindigul, Melur and Periyakulam in Madurai District and possibly Tanjore, also, these quantities may safely be doubled to make good pasture deficiencies. The mineral mixture and salt should preferably be fed continuously. The small amount of the former may not be liked by some animals.

In such cases it may be mixed with concentrated feed like cotton seed, groundnut cake, bran, husk, etc. Common salt is for toning up the general system of the cows. Adoption of these suggestions may not cost more than quarter anna per animal per day.

Scheme of Feeding Mineral Mixture

The scheme of feeding mineral mixture and salt, as recommended by the Madras Agricultural Department, is given hereunder:

Class of animal.	Quantity to be fed per animal per day.	
	Mineral mixture in ounce.	Common salt in ounce.
Calves below one month ..	1	Nil.
Calves 1 to 3 months ..	1	0.25
Calves 4 to 12 months ..	1	0.50
Calves 13 to 18 months ..	1	1.00
Heifers 19 to 24 months ..	1	1.00
Cows in milk ..	2	1.00
Cows nearing parturition ..	2	1.00
Dry cows ..	2	1.00

If the milk yield is more than 20 lb. or 5 Madras measures per day, an extra half an ounce may be given.

Mineral mixture may be purchased from any standard company dealing with manures and fertilisers. But when ordering, it must be made clear that the stuff is meant for feeding cattle. While their cost is low and effect is high, they may be tried by all owners of dairy herd with immense benefit. Value of good milk in these days of food shortage is too well known to everyone of us. So, any effort to increase milk production will certainly make easy the solution of the present food problem and maintenance of human nutritional equilibrium.

Scheme for Poultry Farming

The Government have sanctioned a scheme for poultry farming, with a view to improve egg production and to arrange for the marketing of eggs.

The Scheme is to be worked out by the Madras Co-operative Milk Supply Union through its feeder societies in three stages specified below:—

Stage 1.—Collection of eggs through selected feeder societies and transport to the Union Office at Ayanavaram through milk supply vans and distribution to depots, and local sales through the salesmen appointed for the purpose.

Stage 2.—Improving the egg production by the supply of cocks of exotic breeds, purchased from the Government Poultry Station at Teynampet, to members of the Milk Supply Societies interested in poultry farming, for covering country fowls;

Stage 3.—Introduction of hatching with incubators in order to produce rapid results.

Colostrum And The Calf

By Dr. C. KRISHNA RAO, G.M.V.O., B.V.Sc. M.S. (Calif.)

Cow's milk is generally white or whitish yellow in colour and rather watery in consistency. However, the milk that is given soon after parturition (or birth of the calf) is very much different in its physical and chemical characteristics. This is called colostrum or beastings. It is thick and viscous and light brown or yellowish brown in colour. As soon as possible after birth the calf should nurse in order to get the colostrum which is so necessary for its proper start in life. It is a good practice to wash the cow's udder with clean warm water, drying it thoroughly before the calf is allowed to nurse. This will tend to prevent the calf from getting any bacterial infection which the cow may have picked up while lying on dirty straw. If the cow has been milked before calving, it will be necessary to give the calf a tablespoonful of castor oil unless frozen colostrum has been stored that can be thawed, warmed to 100°F and fed in small quantities from a bottle or a pail.

Colostrum contains nearly six times the amount of protein and twice as much mineral matter for bone building as does ordinary milk, besides being rich in Vitamin A. It is Nature's concentrated baby food, slightly laxative and ideally mixed to start the calf off to a fine growth and development.

Cow's milk has the following general composition:—

Water—87.07 per cent; Protein—3.50 per cent; Sugar—4.90 per cent; Fat—3.80 per cent; Ash—0.73 per cent; Total solids—12.83 per cent.

The composition of milk does not become relatively constant until about the fifth day after calving. During this period the total solids, especially the globulin, materially decrease, whereas lactose content tends to rise.

The most significant difference between normal milk and colostrum lies in the antibody titre, colostrum being very rich in antibodies. These antibodies are extremely important in protecting the new-born calf against serious bacterial infections to which it is particularly susceptible. The blood of the new-born calf contains none of the antibodies, but their concentration increases soon after the calf nurses its mother and feeds on the colostrum. These antibodies seem to be associated with the protein fraction, particularly the globulin portion which is very high in colostrum. The composition of colostrum is not constant and keeps changing, till after five days following parturition.

In dairy farms the milk given by cows during the first three days following calving is not sold for human consumption, since it cannot be used in the place of normal milk.

The exact nature of colostrum seems to be that of a waste product which follows the regeneration of the secretory tissue of the udder; calcium, magnesium, phosphorus and chlorine are all high in colostrum, but as the milk becomes normal a rather rapid decline to a fairly constant level sets in. On the other hand, the potassium in milk is rather low immediately after calving but gradually increases towards a constant level as the milk becomes normal.

The iron content of colostrum is 10 to 17 times higher than that of milk. This and the high proline content of globulin doubtless aid in the rapid increase of haemoglobin in the newly born calf. Milk is very low in its iron content and during the period of feeding on colostrum the calf builds up a reserve of iron in its body to draw upon later, when it becomes necessary. The Vitamin A content of colostrum is about 10 times that of normal milk and that of Vitamin D about three times the normal value. Colostrum has a laxative effect on the bowels of the calf.

It is generally believed that colostrum is indispensable for the health of the calf and its normal growth. While there is no uniformity of opinion in this respect, it may be said that it is advisable to feed the calf on colostrum whenever it is available. In cases where colostrum is not available, either due to the death of the mother or its sickness, the calf may be dosed with a tablespoonful of castor oil to produce the laxative effect.

Government Prosecutors

The designation of the post of the Government Prosecutor, Madras City, has been changed into State Prosecutor, Madras City. Similarly the Chief Assistant Government Prosecutor, Madras City, the Senior Assistant Government Prosecutor, Madras City, and the Junior Assistant Government Prosecutor, Madras City, will in future be known as Chief Assistant State Prosecutor, Madras City, Senior Assistant State Prosecutor, Madras City, and Junior Assistant State Prosecutor, Madras City, respectively.

Kala Azar Unit

The Government have sanctioned the creation of a mobile Kala Azar treatment unit, which will visit each and every village in Ramanathapuram District, where Kala Azar is endemic, and provide proper treatment to the patients suffering from the disease at their own homes.

A new-born calf with its Sahiwal mother. Colostrum is Nature's baby food for calves



Wanted : Earthworm Breeding Farms

The earthworm, if each living kind be considered in its relation to the universe as a whole, is incomparably the most important of animals. Man and the higher animals are parasitic upon this apparently insignificant creature; we owe Hamlet, the Fifth Symphony and St. Paul's Cathedral to its voracious appetite and singleness of purpose. Not only can the earthworm do without man; man is frequently pernicious to its well-being. But man cannot for long do without the earthworm; and if the latter is in its turn dependent upon plants for its subsistence, yet this relationship is one of mutual service rather than parasitism; the worm does as much for the plant as the plant for the worm, whereas man, that is civic man, does nothing for the worms which support him.

A single pair of worms can give rise to several thousand offspring in the course of twelve months. Upon hatching out, the young worms begin at once upon their business of building fertile soil; burrowing through the earth in every direction, descending to the subsoil to bring up a gutful of the minerals which have been leached out of the topsoil, climbing into the topsoil to mix this with dead vegetable and animal matter, passing through their bodies

everything which comes in their way; the worms discharge either just below or actually upon the surface their casts or finely divided, black, sweet smelling soil, neither acid nor alkaline, whatever may be the reaction of their environment, and so fertile that plants growing in it are from ten to several hundred per cent more productive than plants growing in other soils.

Barring accidents, the earthworm is apparently immortal, certainly very long lived, of a robust and careless constitution and a digestion beyond comparison more efficient than our own. Given the muscular strength of an earthworm, in proportion to his bulk, an average man could shift single-handed a weight of about thirty tons.

Darwin estimated the English earthworm population at 50,000 per acre. In more favourable conditions this figure may rise to millions, in the Nile Valley for example. Fifty thousand worms deposit in a year more than ten tons of casts, that is they create more than ten tons of perfect topsoil upon which the plant and therefore the animal and human life of the planet subsists. An acre of topsoil a foot deep weighs about 1,500 tons. So that in 150 years fifty thousand earthworms will turn barren subsoil and vegetable and animal carrion into an acre of fertile topsoil.

State Aid For Private Cattle Breeders

The Government had under consideration for some time past the question of rendering assistance to private cattle breeders in the State. The several proposals made by different authorities from time to time were considered at a Departmental Conference attended by the Minister for Agriculture and by the concerned Heads of Departments and Secretaries to the Government and certain conclusions were arrived at. The Government accepted those conclusions after due examination and have issued orders as follows:

The Government have sanctioned an annual provision of Rs. 1,00,000 for the purpose. Of this Rs. 60,000 will be given as subsidies to cattle breeders, and the balance of Rs. 40,000 as loans. The subsidies will be paid to a maximum number of 30 cattle breeders who maintain a

minimum strength of 25 pure bred animals of Kangayam, Ongole, Sindhi, Hallikar and Umbalacheri breeds; and will be paid on the basis of calves at the rate of Rs. 60 per calf, six months after birth, subject to a maximum of Rs. 2,000 to any one breeder.

The loans will be given on suitable security which may include the cattle maintained at the farm up to 30 per cent of their value subject to the rules and conditions framed for the purpose. The loans and subsidies will be disbursed at his discretion by the Director of Animal Husbandry at whose disposal the entire amount of Rs. 1,00,000 has been placed. Other concessions, such as free lease of land for raising fodder crop for farms subject to availability, exemption from water rates and free grazing in reserved forests will also be given to the selected breeders.

Minor Dispensaries For Treating Animals

The Provincial Livestock Improvement Board recommended that better facilities should be provided for Touring Veterinary Assistant Surgeons to treat cases while at headquarters. The Government in consultation with the Director of Animal Husbandry accepted the recommendation of the Board and have decided that the Touring Veterinary Assistant Surgeons should curtail their tours when there is no outbreak of contagious diseases to be attended to and that they should run minor rural dispensaries while at headquarters and treat cases.

They have accordingly ordered that each Touring Veterinary Assistant Surgeon be provided with a building with a small compound so as to enable him to locate his office and treat animals. Fifteen Touring Billets have already been provided with Government buildings and the buildings required for others will be rented for the present. Sanction has also been accorded to the purchase of necessary equipment and furniture as to run the minor dispensaries. The Government have also issued instructions to locate the minor dispensaries in such places where they could serve the rural population best.



Above : Labourers busy on the Surianallur-Eragampatty road



Above : The road after formation



Left : Cleaning the ground for the Kolumanguli-Itchipatty road

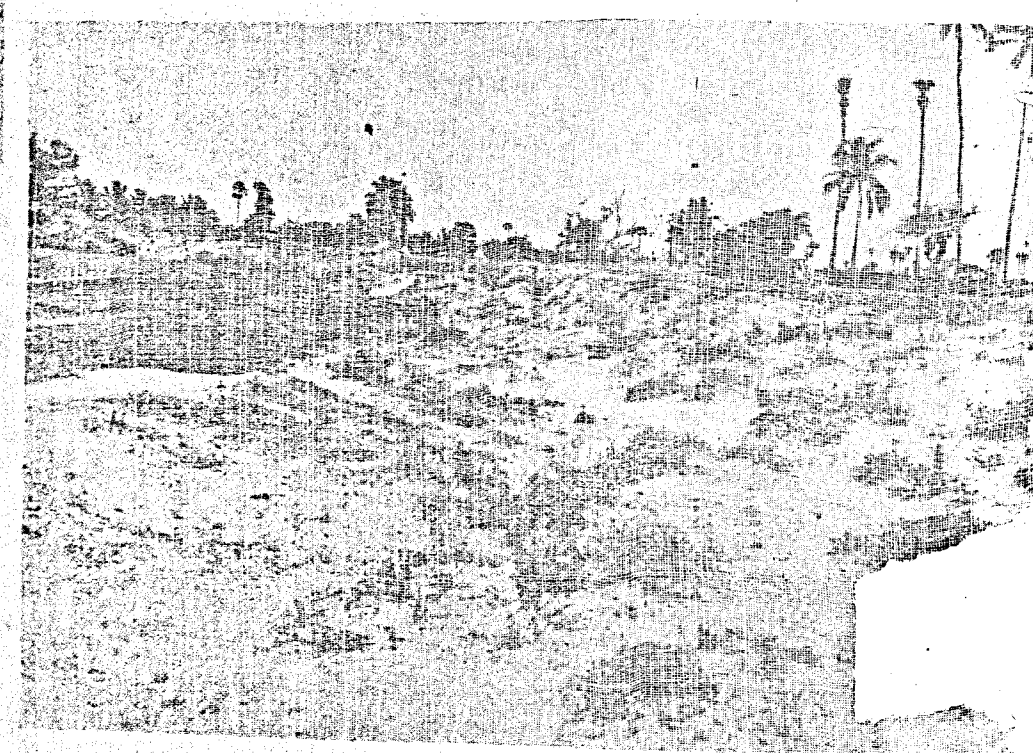
Right : Hundreds of unemployed ryots find useful work in such projects. Here the Kolumanguli-Itchipatty road takes shape



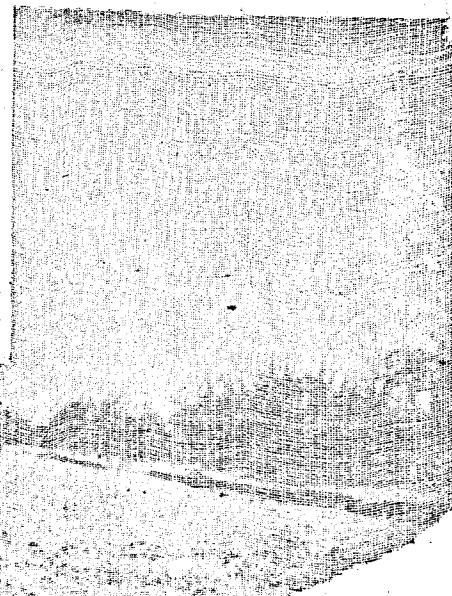
Registered No. M-4767

COIMBATORE COMBATS
DROUGHT DISTRESS

Above: A fine road from Kolu-
manguli to Ichipally
was laid by the ryots



Above: Scrub and bush on the
Navanari-Dasarapatti
track



Above: Ryots set to work with a
will

Above: and a clear road,
fit for cart or bus, is
ready for use



MADRAS INFORMATION



VOL. IV. NO. 7

MADRAS
JULY
1950

Price, As. 3

PROHIBITION

Prohibition And Amelioration

There was a decrease in the number of Prohibition cases in all the districts except in the districts of Bellary, Kurnool, Coimbatore, North Arcot, the Nilgiris, East Godavari, Krishna, Madras, Ramnad and Tirunelveli.

The number of offences under illicit distillation showed a decrease. Also cases of illicit tapping.

The total number of cases of smuggling of liquor reported during the month was 70 as against 69 in the previous month. One hundred and sixty-one cases relating to intoxicating drugs were reported during the month as against 170 in the previous month.

Ameliorative Work Went On Apace During The Month

Provision was made for the employment of ex-tappers in the Province.

During August 1949, 41 jaggery manufacturing co-operative societies were organized in the districts. Jaggery societies throughout the province produced 28,864 maunds of jaggery valued at Rs. 2.14 lakhs. A scheme for the training of ex-tappers in improved methods of jaggery production is underway.

Ten milk supply societies were organized in Guntur, Mathurai, Malabar and Tanjore. Many of the ex-tappers continued to be absorbed as agricultural labourers, unskilled workers in commercial and industrial establishments, peons, watchmen, etc., and as gang coolies in the Engineering department.

Co-operative societies were also formed for the benefit of ex-addicts as well as of the members of the general

public. They comprise 39 rural credit societies, one cattle breeding society, a land colonization society and fishermen co-operative societies.

During the month, 42 fresh grama sanghams were formed in the districts while 20 sanghams which remained dormant were revived. Three thousand eight hundred and ninety-one sanghams attended to rural uplift activities such as public health, sanitation, village communication, education, agricultural improvement, women's welfare, etc. Two hundred and eighty-eight rural credit societies amended their by-laws with a view to undertaking social and recreational activities bringing the total number of such societies to 1,598.

Tea or coffee stalls were reported to have been opened for substitute drinks in about 100 places in the districts.



Preparation of Jaggery.

PROHIBITION

As usual dramas, bhajanas, kalakshepams, folk dances, etc., are reported to have been held at various places. Rural welfare officers visited 1,919

villages and conducted rural games in 749 villages. A sum of Rs. 21,687 was saved in hundi boxes. The mike and gramophone records attached to the propaganda vans were used for entertaining villagers as well as for doing propaganda. [August 1949]



Rural Entertainment.

Why Prohibition

By THE HON'BLE SHRI B. G. KHER

I find that there is a large number of thinking people who have not made up their minds about prohibition. They claim to be rationalists and some of the arguments which the opponents of prohibition put before them appeal to them by their plausibility. They cannot understand why Government should be so keen on introducing prohibition.

After all it is said, how many people drink, at any rate, how many are drunkards and why should Government bother about them and lose this large revenue out of taxation on drink. Would it not be better, on the contrary, to put heavy duties, make drink more expensive and benefit the State by

making these people pay more for their drink? Next to the "interference with personal liberty" argument, the argument which makes greatest appeal to such people is "Why should Government object to people drinking in moderation?"

I do not propose to say much about the personal liberty argument on this occasion though it is rather difficult to understand why people should submit to, nay clamour for, controls on their hours of work, the quantity and nature of their food, of their entertainment, their education, their hours of rest and make such a vehement protest when their so-called liberty to commit suicide

by slow poisoning should be restricted. To those who wish to think and come to right conclusion it may not be out of place to consider why and how men take to drink.

Why and How

In western countries with their severely cold climate alcoholic beverages perhaps make a natural appeal and the habit of imbibing alcoholic drinks has been cultivated by most western countries since several centuries. If you ask a man, how to drink or to smoke tobacco, he will say in the words of Leo Tolstoy: "Just to whileaway time, to cheer oneself up; everybody does it." That is just it. Most people

830/50

Madras Information

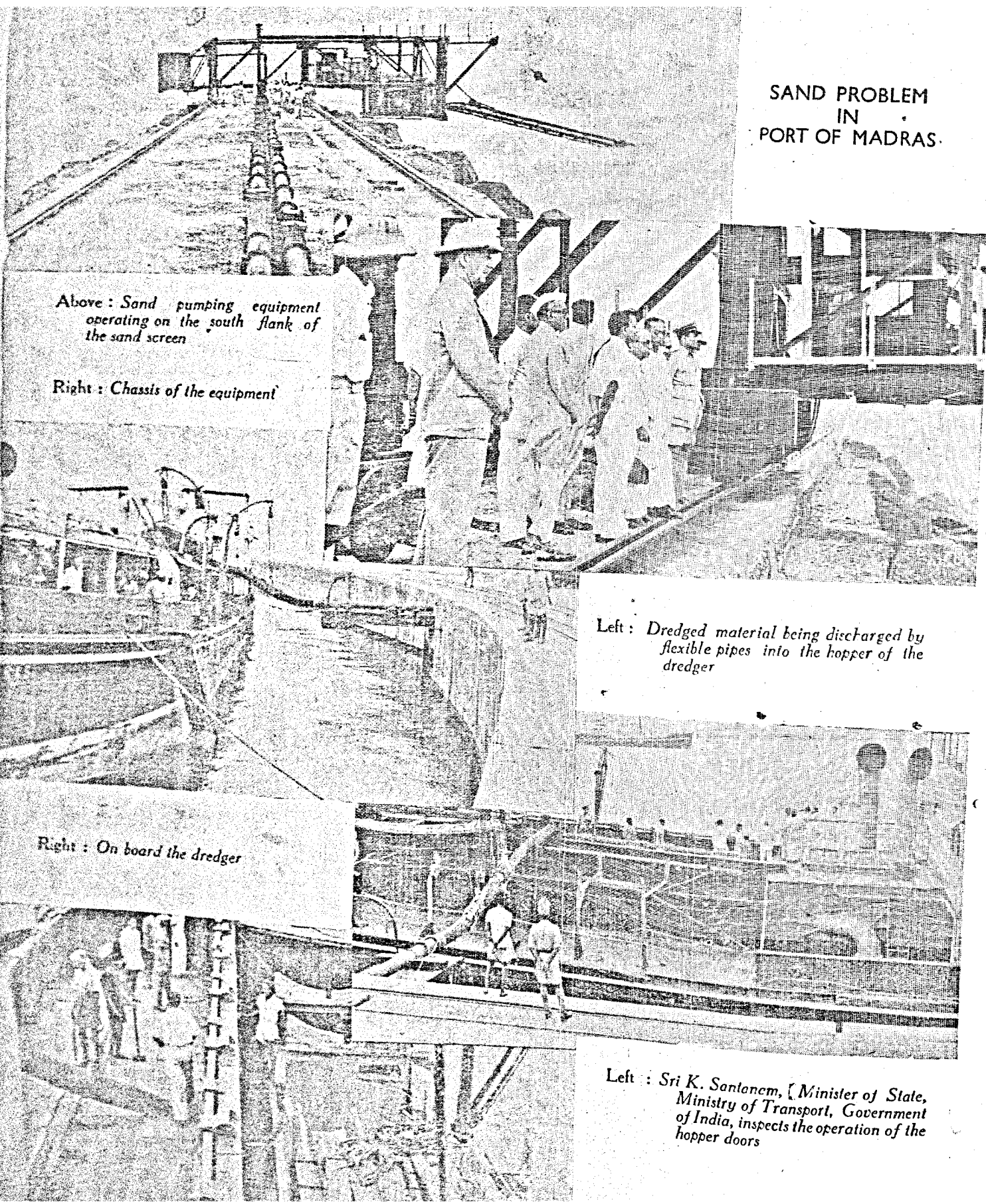
Published every month by the Director of Information and Publicity
Fort St George

Vol. IV, No. 7 "WE SEEK TO SERVE AND NOT TO COMPETE" July 1950

CONTENTS

	PAGE
PROGRAMMES—	
1. Electricity and Irrigation Projects ..	3
2. Sale of National Savings Certificates ..	4
INDUSTRIES—	
3. Sand Problem at the Port of Madras ..	5
4. Manufacture of Malted Food ..	6
FORESTRY—	
5. Proper Utilisation of Forest Wealth—Sardar Vallabhai Patel ..	10
6. The Protection of World Resources—Lieut. Col. R. W. Burton ..	11
7. The Chenchus—Sri P. Srinivasa Rao ..	12
8. Working of the Forest Department ..	13
FOOD—	
9. The Winged Menace ..	14
10. Increase in Rice Outturn ..	15
11. Food Offences and Punishments Awarded ..	16
ANIMAL HUSBANDRY—	
12. Glimpse into Greens—Sri C. Balasubramanian ..	17
13. Cattle Need Nutritious Feed—Sri C. Balasubramanian ..	18
HEALTH—	
14. From Source to Tap—Sri C. Narasimham ..	19
IRRIGATION—	
15. The Lower Bhavani Dam ..	24
16. The Ellis Choultry Ancient Scheme ..	25
17. New Grow More Food Schemes Sanctioned ..	25
18. Investigations and Improvements ..	27
FISHERIES—	
19. Pisciculture in South Malabar—Sri V. Achuthan Nair ..	28
CO-OPERATION—	
20. The Rudravaram Colony ..	29
21. Distribution through District Co-operatives ..	30
22. New Trends in the Movement—Sri S. G. Appa Rao Naidu ..	31
LAW AND ORDER—	
23. Anti-Social and Subversive Elements—Chief Minister's Appeal ..	31
24. Committee to consider the Madras Children Bill ..	34
25. Counterfeit Currency Note Confidence Trick Cases ..	36
HIGHWAYS—	
26. Bridge over the Coleroon (pictures) ..	37
AGRICULTURE—	
27. "Achievement Audit" ..	38
28. Manuring of Cotton with Ammonium Sulphate ..	40
29. Compost in Tirumangalam ..	41
30. Remission to Flood Affected Areas ..	42
NEWS AND NOTES—	
31. Miscellaneous items ..	43
BOOKS—	
32. Gandhiana, etc. ..	44
CULTURE—	
33. The Zoological Gardens—Sri A. Sankaran ..	46

SAND PROBLEM IN PORT OF MADRAS.



Above : Sand pumping equipment operating on the south flank of the sand screen

Right : Chassis of the equipment

Left : Dredged material being discharged by flexible pipes into the hopper of the dredger

Right : On board the dredger

Left : Sri K. Santanam, [Minister of State, Ministry of Transport, Government of India, inspects the operation of the hopper doors

Electricity and Irrigation Projects

During the post-war period, this Government have sanctioned the execution of a number of major irrigation and electricity schemes such as the Tungabhadra Multipurpose Project, the Lower Bhavani Irrigation Project, the Moyar and the Machkund Hydro-electric Projects and extensions to the Pykara, Papanasam and Madras Electricity Systems. The total estimated cost of this programme is about Rs. 65 crores. Execution is progressing briskly on all these works and up to the end of March 1950 over Rs. 25 crores have been invested on them. The programme is expected to come into fruition by 1952 bringing into irrigation half a million acres of dry land and doubling up the power generation of the State. When this programme was launched in the years 1946-48, the Government had no reason to apprehend that there will be difficulty in raising the required capital. That was a time when the Government of India were inducing State Governments, by substantial subsidies and loans, to embark on various nation-building activities, whether productive or unproductive. The capital programme of this State did receive material assistance from the Government of India up to the end of the financial year 1948-49.

For the financial year 1949-50 which has just closed, this Government had incurred a capital expenditure of about Rs. 12 crores, of which about Rs. 10 crores were on the irrigation and electricity programme mentioned above. The Government of India had promised a loan of Rs. 6 crores towards this expenditure, but after the estimates were finalized, the Government of India found their ways and means position extremely difficult and in October 1949 the promised loan of Rs. 6 crores was withdrawn. This was, no doubt, due to causes beyond the control of India, but the decision placed this Government in a difficult position, because heavy commitments had already been undertaken. However, this Government persevered and managed to sustain the programme of the year without material curtailment. The deficit was met by various expedients such as enforcing economies in the Revenue Budget, drawing upon the opening cash balance, diverting accumulated credits under State Trading Schemes and also selling some securities held in the Reserve Funds.

Provision in Current Year's Budget

The current year's budget provides for a capital expenditure of Rs. 15½ crores of which about Rs. 12 crores are on the irrigation and electricity programme already under execution. This large sum has to be found during the course of the year, either by obtaining a loan from the Central Government, or by selling a portion of the securities now held in the Reserve Funds or by raising a loan

in the open market. Before the budget of this State was framed, the Government of India had held out hopes that aid to a limited extent might be forthcoming this year for productive projects. Considering that the assistance promised last year had to be withdrawn at the last moment, it was a fair expectation that this Government would get some help from India this year. A sum of Rs. 35 crores has been earmarked in the Central Budget for this year as loans to States, but it does not appear that any provision has been made for assistance to this State. The Reserve Bank has appreciated the difficulties of this State and is accommodating to the maximum extent possible by temporary advances and occasional sales of securities, but this cannot be a permanent solution to the problem of capital finance.

It is the intention of the Government to raise an open market loan, but the amount that could be secured by that method is dependent on various factors such as the spare cash available with the investors and the needs of the Central and other State Governments. Representations have been made on the Government of India stressing the importance of the programme of this Government from an all-India point of view and it is still hoped that assistance of some kind will be forthcoming; but the present indications are that the capital funds required this year are not likely to be obtained in full even after recourse is had to all the alternatives mentioned above.

Danger in Delay of Projects

But our irrigation and electricity projects are all in an advanced stage of construction. The organization and machinery, painfully built up at various workspots, will remain idle if adequate funds are not allotted as programmed. For a State sadly short of food and motive power, the speedy execution of these projects on which much hopes have been raised, cannot be over-emphasized. Delay involves wastage of effort and needless enhancement of the capital cost of the programme by the addition

PLANT FOR PROSPERITY!

This is the call of the moment. Play your part in this national endeavour for the permanent prosperity of our country and people. Our appeal is reflected by a group of shady trees near a stream which adorns our first cover page. Participate in Vana Mahotsava by planting trees!

Caption for the second page:

Above: Sri B. Parameswaran, Minister for Rural Development, recently presided over a meeting of the State Harijan Uplift Committee.

Below: Sri H. Sitarama Reddi, Minister for Land Revenue, stressed the need for efficient tourist trade publicity. Seated at his left is Sri K. Santanam, Minister of State Ministry of Transport, Government of India, who opened the Tourist Publicity Centre in Madras City recently.

of interest on the vast sums so far invested and lying unproductive. This programme has therefore to be sustained even if it calls for a measure of sacrifice in other directions. The Government have therefore examined the provisions of the Revenue Budget for the year in consultation with heads of departments in order to effect some savings to cover a portion of the capital expenditure.

It was not the intention that ameliorative measures undertaken for the benefit of the people, should be stopped or starved out. Endeavour has been made to preserve the general structure of the budget as approved by the Legislature. Heads of Departments have responded very satisfactorily to the appeal of the Government and savings have been found by them in the normal administrative expenditure of the departments. They have cheerfully accepted small cuts under travelling allowances, contingencies, petty construction and maintenance grants, the cumulative effect of which would amount to several lakhs of rupees. By greater vigilance over expenditure under these heads, they hope to see that the general efficiency of the administration is not reduced. The building programme for the year has been slowed down appreciably and a few institutions which had already outlived their usefulness are being closed down. The well subsidy scheme is also being slowed down for the year.

A Cabinet Sub-Committee presided over by the Chief Minister and assisted by the concerned Minister, Chief Secretary, departmental secretaries and heads of departments have been examining the proposals of the Finance Department for economy in expenditure. Executive instructions are being issued to heads of departments regarding the amounts agreed on. The total reduction in expenditure anticipated both under Revenue and capital heads during this year is about rupees three crores and our capital requirements will be reduced to this extent. A considerable portion of this sum, however, is not absolute savings, but is only a postponement of expenditure from this year to succeeding years.

A saving of rupees three crores can only go a small way towards the total capital expenditure for this year. These projects can be kept up only if substantial assistance reaches in time from other sources. The people of this State can play an important part in sustaining this programme. The Government intend approaching the open market for a loan some time towards the middle of this year and it is hoped that the moneyed men and agriculturists of this State will subscribe confidently to this loan and thereby demonstrate that they have faith in the development programme now under execution.

Sale of National Savings Certificates

Prior to 1st June 1948, the sale of National Savings Certificates was effected through a system of authorised agents, under which each village headman, certain Government servants and non-officials were the authorised agents. From 1st June 1948, the Government of India took over the control of the Small Savings Movement and the system of authorised agents was abolished from that date. The Government of India have now decided to revive the system as an experimental measure with a view to afford the necessary fillip to the expansion of the Small Savings Movement. The authorised agents will be appointed from among non-officials, Government servants including village headmen, executive heads of local bodies, scheduled banks and co-operative institutions. The scheme has come into effect from 1st June 1950 and the main features of the scheme are given below:—

- (i) Sale of certificates through authorised agents will be restricted to the 12 year certificates only.
- (ii) Commission will be paid as follows :
2½ per cent on sales of denominations of Rs. 5 certificates
and 1½ per cent on sales of denominations of Rs. 10 and over.
- (iii) Appointments of authorised agents will be made by the Provincial National Savings Officer, Madras, in Madras City and by the respective Collectors in the districts.
- (iv) The authorised agents should not receive collections in respect of five and seven years series. These certificates should be obtained direct from Post Offices.

The Government attach considerable importance to the development of the National Savings Movement and the inculcation of the habit of thrift among the masses as a radical measure of social uplift leading to an improved standard of living all round. The Government also consider that the resources of the vast number of potential small savers in the country should be available for financing the development schemes designed to improve the standard of living among the masses. The success of the movement depends mainly on the active support and willing co-operation of the public. The Government hope that the people of Madras State will evince the same interest and support to the Movement as in the past and invest their savings on the purchase of National Savings Certificates.

Sand Problem at the Port of Madras

The Coromandel Coast is subject to seasonal movement of sand. During the period of the South-west monsoon, the sand is moved along the coastline from south to north and during the North-east monsoon the process is reversed and sand is moved along the coast from north to south. As the South-west monsoon is generally more regular and extends over a longer period than the North-east monsoon, the resultant drift of sand is towards the north.

The quantity of sand "trapped" south of the Madras Harbour was estimated in 1912 at a million tons per annum and it was anticipated that if no steps were taken, the movements of sand in succeeding years would be so great as to envelop the harbour entrance about the year 1953.

To mitigate this trouble, 'a sand screen' was constructed by extending the south breakwater of the harbour seawards for about 700 feet. This extended arm served to arrest the movement of sand towards the north. It was, however, recognised that it would only serve as a temporary palliative and could not obviously be a permanent solution to the problem.

Dredging Plant Installed

About 1939 a scheme was conceived to instal a dredging plant designed to operate from the breakwater and to dredge the sand off the south side of the harbour. The intervention of the war and other causes delayed the completion and supply of the equipment which was only received in January this year and was installed in March and has been in operation since.

The sand accreted annually is a varying quantity depending on several factors such as the frequency of cyclonic storms which has the effect of tearing down beaches, the period of "on" and "off-shore winds", etc. The average accretion of sand over some years ending with 1949 was approximately 400,000 tons per annum. During the current year, however, the accretion has amounted to just over a million tons. Approximately one-fourth of this quantity was deposited between the south breakwater and the Aga Light (near the harbour entrance).

Cost of Sand Pumping Equipment

The sand pumping equipment installed at an approximate cost of rupees two and a half lakhs, consists of a shore dredging unit which can travel over the body of the sand screen and operate at specified points. It pumps the dredged sand from the north or south sides of the breakwater as may be required, by means of a pipe-line into the hopper of a vessel which receives this spoil and deposits it into the sea. The pump and electrical equipment were imported from Britain and the chassis were manufactured in Calcutta.

The plant is capable of pumping 2,000 gallons per minute. In actual practice it has been able to remove approximately 1,800 tons of sand per day. It cut deep pockets alongside the breakwater which are intended to receive the bulk of the sand that is moving along the

DO YOU KNOW

Do you know that trees:

- (a) are a national wealth,
- (b) provide shade, fruit and fuel,
- (c) help extend industry,
- (d) provide shelter and housing,
- (e) increase rainfall,
- (f) prevent soil erosion,
- (g) conserve soil moisture.

ATHARVAVEDA.

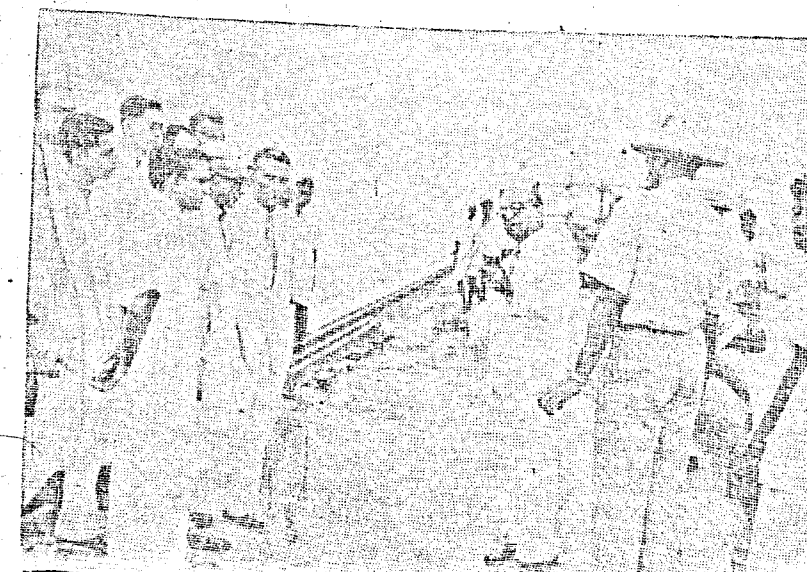
coast. Approximately 50,000 tons of sand have thus been removed by this process, during March and April.

Work of Suction Dredger

The sand that has already found its way north of the sand screen and lies deposited along the eastern periphery of the harbour has to be dealt with by the suction dredger, operating near the approaches to the harbour entrance. The suction dredger will also operate east of the sand screen to dig deep trenches to trap the sand moving along the deeper contours which lie beyond the range of the sand pumping equipment.

Based on the results of the experiment now being carried out, a decision will be reached whether it will be necessary to extend the sand screen for a further length to enable the existing plant to operate over a longer area and/or to supplement the sand pumping equipment by one or more of the same type to deal with the sand problem effectively.

Sri K. Santanam, Minister of State, Ministry of Transport, listens attentively as the Harbour Engineer explains the sand problem



Manufacture of Malted Food

Malt is an important constituent in modern diet. It forms a part of almost all invalid and baby foods. It is utilized in the manufacture of malted milk beverages, and various pharmaceutical preparations. Extract of malt is used as a diastatic agent in textile industry. Malt refuse is a useful concentrated cattle food.

The malt industry in India is still in its infancy and the Government Malt Factory at Coimbatore is the only one of its kind in this country where malt extract is made on a commercial scale. The bulk of our requirements of malted and farinaceous foods are imported from other countries. The quantity of pre-war and war-year imports with value is given below.

The magnitude of the imports shows how much our country is depending on other nations and proves the necessity to develop this industry in our country and make it meet all internal demands.

Malt is generally prepared from barley, which is not available in South India to any large extent. So investigations made with other grains available made the production of malt food and malt extract from cholam practicable on a large scale in the Government Malt Factory at Coimbatore.

Malting of cholam was started in 1917 and the product was for the first time exhibited at the Madras Exhibition in 1917. Further experimental work was developed in 1924, and intensive studies made for the proper malting of cholam. Samples of malt food prepared were also subject to clinical tests in several hospitals of the State and the unanimous certification of its efficiency as a valuable food for infants, invalid and convalescents obtained.

World War II gave fresh stimulus to this infant industry at Coimbatore. Foreign imports of malt foods were not possible and substitute foods had to be prepared out of the indigenous materials. A plant was put up for the manufacture of malt food and malt extract in 1942, on a pilot plant-scale and large-scale production started in November 1943. The buildings, plant, machinery and other equipments for large scale production were all locally fabricated and put up in 1945—(Photos 1 and 2).

Straight malt food without the admixture of milk, sugar or flavouring substances intended to replace the invalid foods like Horlicks was undertaken at the beginning. From August 1945 work was concentrated in the production of malt extract which is in great demand in the medical sphere.

Malt Food

The various process involved in the manufacture of malt food and malt extract are described below:—

(i) *Grading*.—Cholam grain of high germination capacity is first cleaned to remove all the unfilled, weevil

	1937-38.	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
Quantity in cwts	375,339	428,275	388,275	371,132	437,312	24,050	* 9,535
Value in rupees	74,14,330	76,78,141	85,32,835	84,73,300	94,74,439	17,02,039	11,58,056
* Fall in imports due to war.							

attached or broken grains and other extraneous matter. Only selected clean grains are used for malting—(Photo 3).

(ii) *Steeping*.—After washing, the seeds are steeped in water in vats for 24 hours to allow the grains to absorb sufficient water to secure germination without the withering of the rootlets. During this period the water is changed at least six times and the grains aerated for half an hour with every change of water—(Photo 4).

(iii) *Couching*.—The steeped grains are thoroughly washed and allowed to germinate in couching rooms for four or five days in wire gauze trays. It is at this stage that various changes take place. The enzymic activities breaking up the proteins, starch, etc., into simple substances begin. The presence of these resulting assimilable sugars give high nutritive value to the malt food. The grains after germination are sun-dried and the material is known as 'Green Malt'—(Photo 5).

(iv) *Roasting*.—The green malt obtained after sun-drying is polished and roasted in roasters at low temperature below 70° until the characteristic aroma develops—(Photo 6).

(v) *Grinding*.—The roasted malt is ground fine and passed through a fine sieve. The fine powder is malt food—(Photo 7).

Malt extract.—A diagrammatic flow sheet for manufacture of malt extract with shark liver oil—(Photo 8).

(vi) *Mashing*.—Equal quantities of powdered green malt and roast malt are mixed with water in a pan and mashed at 60°C. for four hours—(Photo 9).

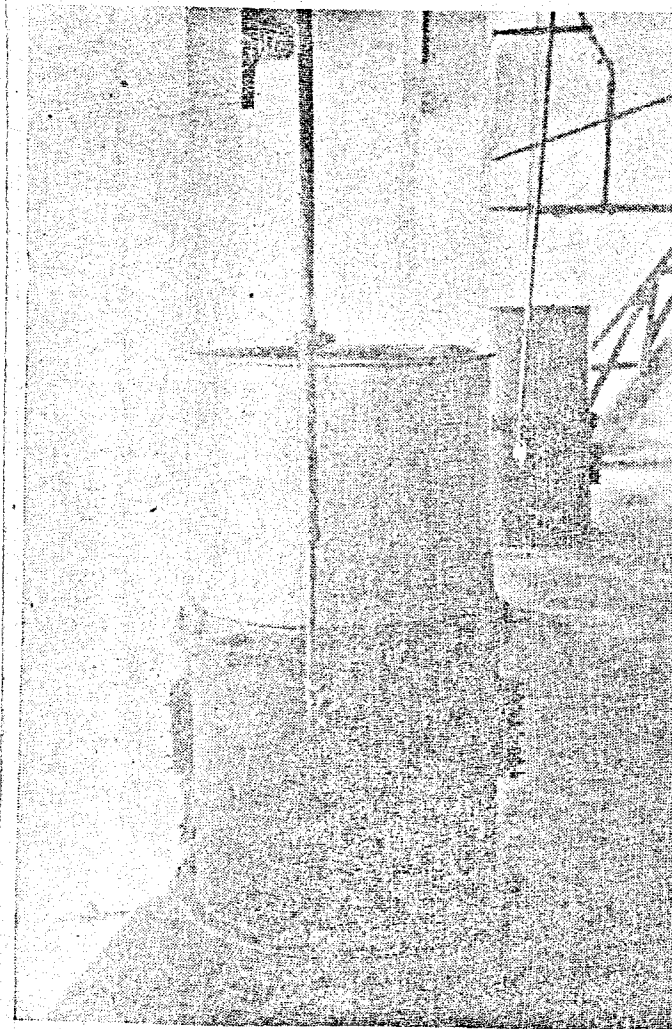
(vii) *Centrifuging*.—The supernatant liquid is decanted to another pan and the thick mash is centrifuged to separate the solid and liquid portion—(Photo 10).

(viii) *Filtration*.—The mash liquid obtained by decanting and the centrifugate are mixed and filtered hot in vacuum filters through a bed of active carbon—(Photo 11).

(ix) *Concentration*.—The clean filtrate is transferred to steam jacketed vacuum stills and concentrated at a temperature not exceeding 70°C. The final extract obtained after decantation for about 12 to 15 hours is the Malt Extract. This extract is a syrupy liquid of the consistency of thick honey with specific gravity of about 1.43 having over 65 per cent of quick energising sugars, besides dextrin and protein conversion products—(Photo 12).

(x) *Mixing*.—The malt extract is fortified with high potency shark liver oil to have a guaranteed Vitamin A content of 200 I.U., as also Vitamins B and D. The oil is incorporated in the Malt Extract by stirring at a high speed.—(Photo 13).

(xi) *Packing*.—The final product of malt extract with Shark Liver Oil is packed in 1 lb and 5 oz. bottles and sealed—(Photo 14).



Vacuum filters in which the thin extract is filtered

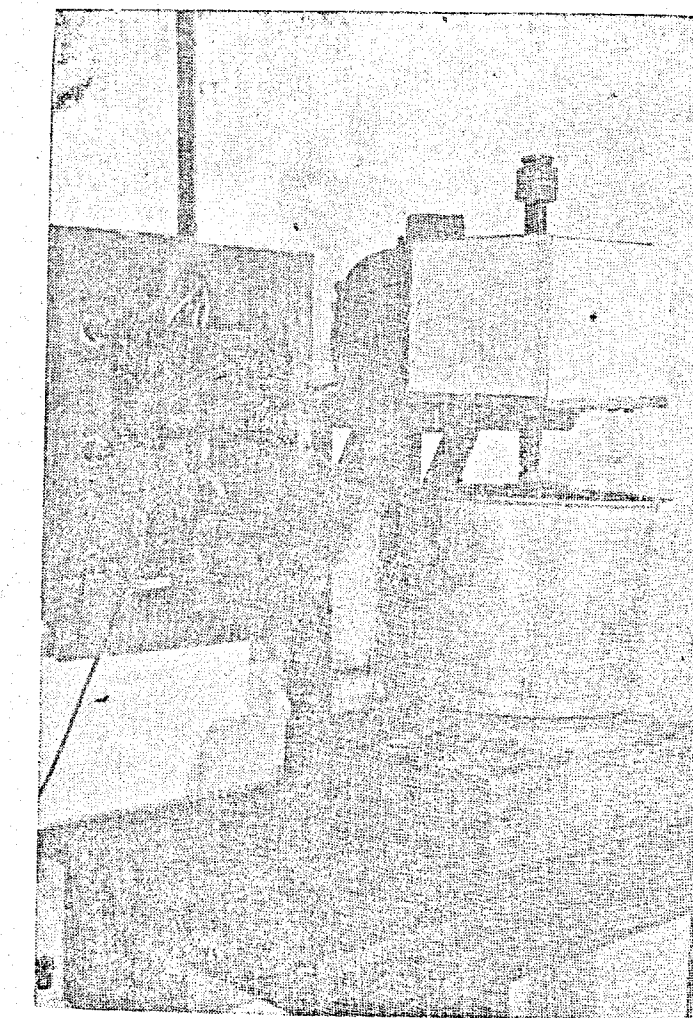
Sales and Distribution

The full production in 1944 and 1945 was taken by the Medical Directorate of the Defence Department. The standard quality of the product was also recognized by the Madras Medical Department and indents from hospitals in the Presidency are being complied with regularly.

The year 1946 brought in a new phase in the history of the factory. It was taken up as a regular commercial concern and a target production of 27,500 lb. per annum was fixed. The product was widely advertised by distribution of sample bottles, cinema slides and through important exhibitions. The soaring prices of materials put in a premium for maintaining the factory on a profitable basis. It can however be said with confidence that the factory has definitely turned the corner and the present position

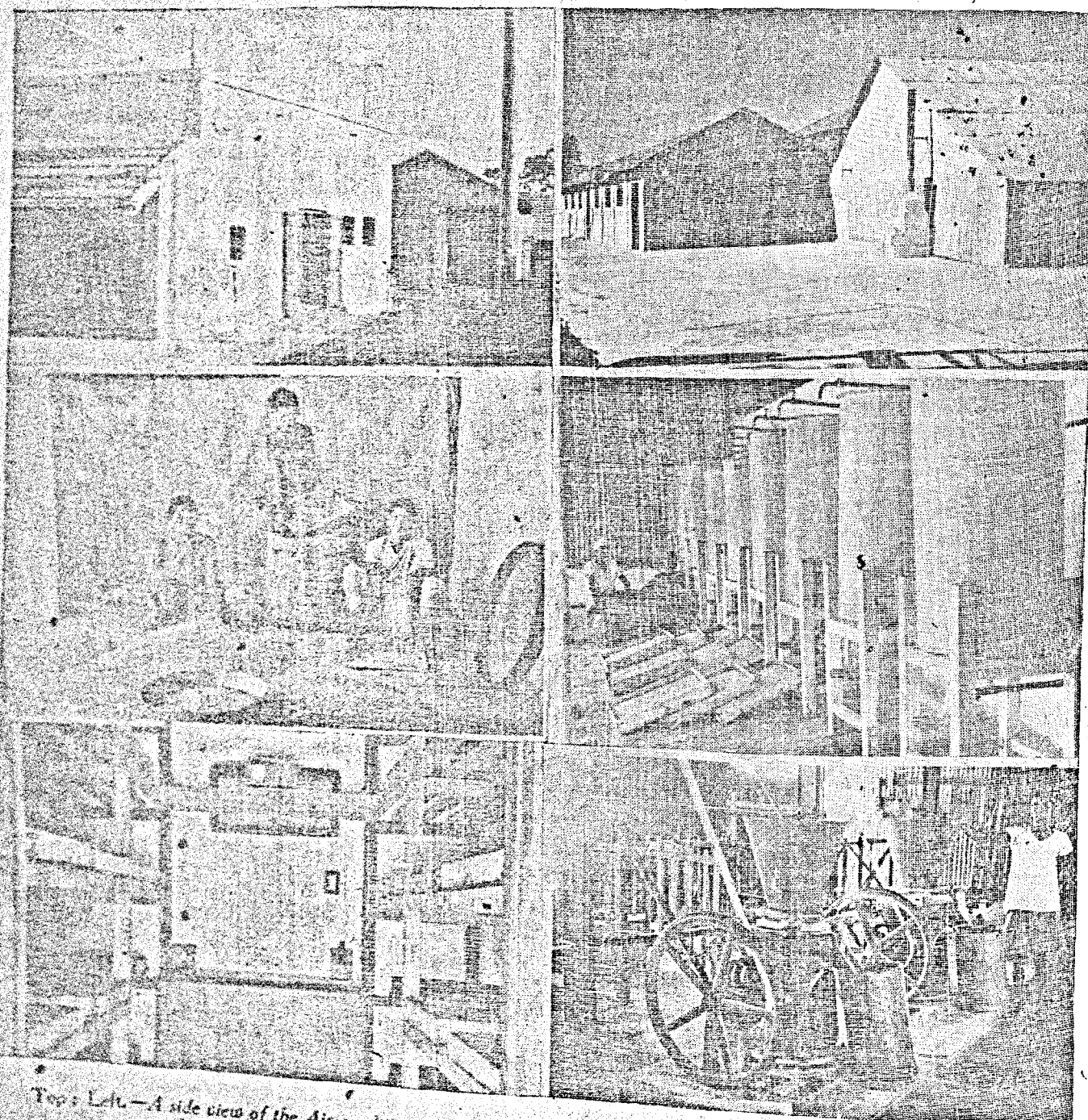
2A

Extract is blended with High Potency Shark Liver Oil with the aid of Electric Stirrers

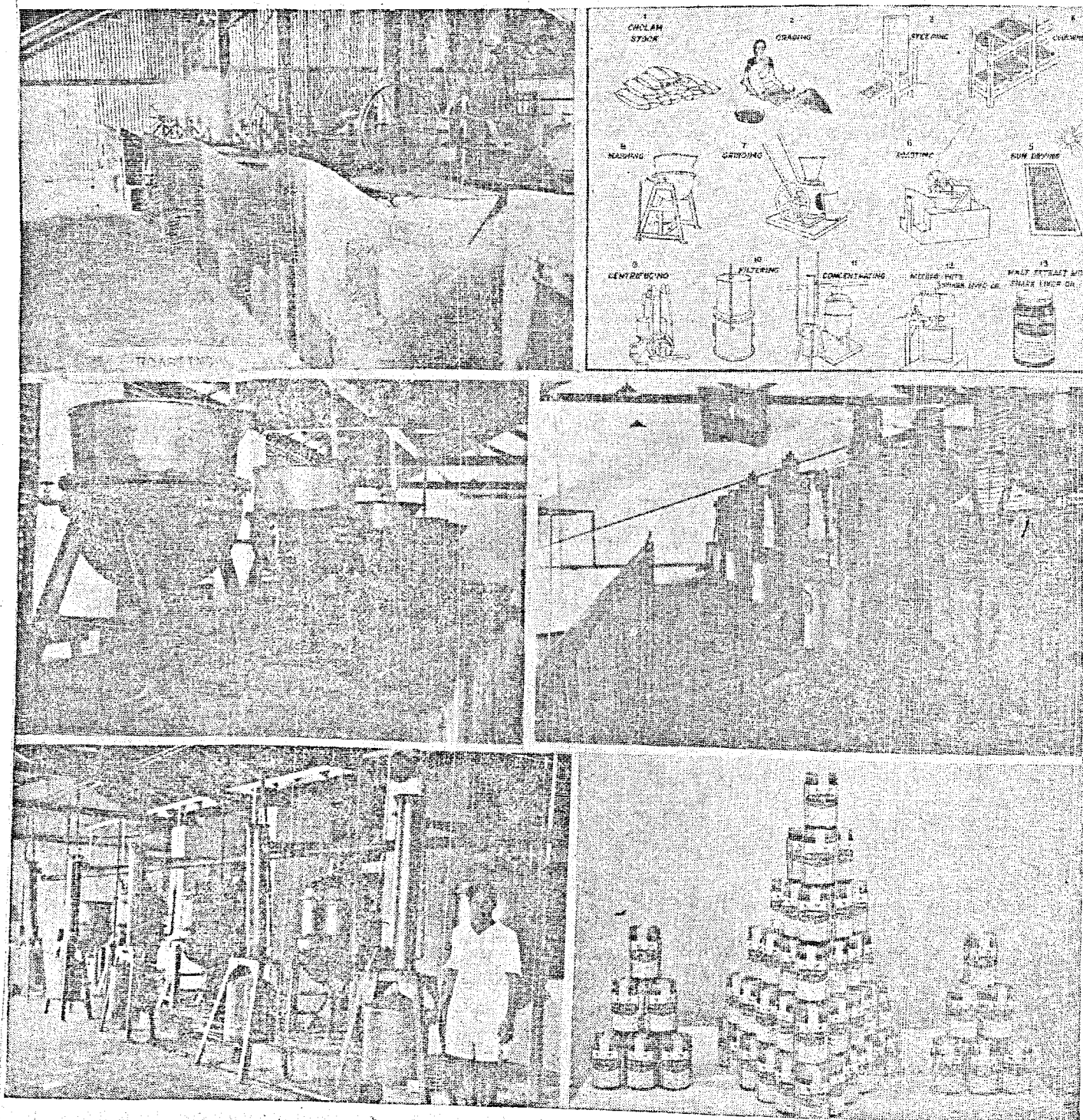


is very encouraging. During 1949-50 the hospitals alone have taken a quantity of over 20,800 lb. of malt extract. The future prospects are bright and it is hoped that the growing demand and increased production will not be distant future.

The Food Industries Planning Panel recommended that this institution should be converted into a training centre and a place for conduct of further research to keep this product abreast of international standards. Students are deputed from various places in India to this factory to undergo training in Malt Manufacture. At present, the Food Technology Students are undergoing apprenticeship training course in Malt Manufacture. Supplies of malt extract are also taken in bulk by the Director-General of Industries and Supplies of the Government of India.



Top: Left.—A side view of the Air-conditioned couching rooms and malt extract shed. Right.—A view of the malt food shed and store room.
 Centre: Left.—Cholam seeds are cleaned before malting. Right.—Steeping oats in which the seeds are soaked before germination.
 Bottom: Left.—Air-conditioned couching rooms where the grains are germinated in trays. Right.—A battery of roasters used for roasting the malted grains.



Top: Left.—Grinding machines for powdering the malted grains. Right.—A diagrammatic flow-sheet for manufacture of malt extract with Shark Liver Oil (the various stages of manufacture are numbered serially).
 Centre: Left.—The powdered malt is mashed in these steam jacketed pans. Right.—Centrifuges are used for separating the thin extract from the malt residue.
 Bottom: Left.—A battery of vacuum stills used for concentration of the dilute extract into highly viscous malt extract. Right.—The final product "Malt Extract with Shark Liver Oil" is packed in one pound bottles.

Proper Utilization of Forest Wealth

"The proper utilization of forest wealth must be an important part of our national policy, if we have to succeed in increasing national prosperity", declared Sardar Vallabhbhai Patel in his Convocation address of the Forest Colleges and the Forest Research Institute in Dehra Dun.

In the course of his address Sardar Patel observed: Forests, as natural resources, are the most wronged by the hands of men who should appreciate their utility better. In the struggle for existence or in competition with nature, human beings are apt to follow the path of least resistance and taking a narrow short-term view of their needs and the resources available for their fulfilment, lay their hands on the nearest available resource without any forethought of their replacement for future requirements. The history of denudation of the forest resources of this country is replete with instances of cruel exploitation of this vital national wealth and criminal waste of capital placed in our hands by a bountiful nature.

Planned exploitation of such resources, based on the principle of preservation and replacement, is a feature of comparatively recent date. Obviously, we cannot make up the leeway of centuries, but we can by judicious planning and layout still husband the resources that are available and create wealth which, in course of time, may achieve that balance between afforestation and clearance which is the hallmark of scientific planning.

Forests Satisfy Basic Needs

After all, forests satisfy our basic needs with a universality which might well be the envy of those who believe in bringing wealth within the reach of all. The humble dweller of village huts, the rich dweller of luxurious city buildings, the cook in his kitchen and the more fortunate possessor of a well-furnished drawing room, all alike draw from the forests the means of satisfying what to each is an elementary and essential need.

But how few have the attitude of reverence and consideration for the trees and plants that sacrifice themselves in the service of mankind! Worship of trees is still an old tribal or village custom. We ourselves in our cosy chairs touch wood to invoke blessings or to ward off the evil eye. In one case there is the sense of closeness to a readily available aid for existence; on the other, there is a recognition of value forced by habit rather than by conviction. But in both there is the element of sanctity which needs greater realization and genuine appreciation in every-day life.

Nation's Requirements

By trying these thoughts to realities and hard facts of statistics, I find that the total forest area of this country covers 171,000 square miles which gives a percentage of 22.6 to the total land area. If we consider the requirements of our vast population and the need for softening the rigours of its climate and combine this with a study of the distribution of the area under forests and the comparatively poor state of our communications, we shall at

once be struck with the deficiency of the resources that are available. At a conservative estimate, in order to have a balance between open and covered area, we must add at least one-third more to our area under forest.

We have also to consider another broad fact which has recently been claiming increasing attention. Do not the failure of monsoon on the East Coast during the last three years, the fitfulness of monsoon in North Gujarat and Saurashtra and the encroachment which the desert of Rajputana is making on the Gangetic Plain suggest the need for so ordering our forest belts as to create conditions more helpful to averting what might eventually be a certain disaster to the life and happiness of millions? The part which forests play in moderating the rigours of climate and meeting the growing menace of the desert or the trespass of the rivers and mountain streams on fertile soil can hardly be over-estimated.

The existence of mounds and ridges where, only some years ago, there were green pastures or smiling crop-lands, the surrender which cultivation has been making to barrenness and the presence of bare rocks where years ago the sylvan goddess stood in all its splendour, should convince us of the heavy drain which is slowly but surely being made on our priceless treasures on which depends our ability to feed our growing population.

Need for afforestation

If we are to survive this growing struggle for existence, this process of denudation of our wealth has got to be stopped and we have to plan a nation-wide scheme of afforestation which would provide against the dangers to which I have referred above. To neglect this essential field of nation-building activity would be a national disservice and a failure to discharge a vital duty of administration and citizenship.

I realize that simultaneously a system of scientific exploitation of our rich timber resources must go on. The total revenue from forests in former provinces alone amounted to about 10½ crores and the total outturn of timber and firewood amounted to one-third and five million tons, respectively. Moreover, forests, while saving us from the ravages of flood and famine, can themselves become a menace to cultivation. Scientific felling of forest areas combined with fresh growth, which would at least make up for the loss of forest wealth involved, must be the aim of a sound working plan. Forests also provide indispensable raw material for important industries, both big and small.

The proper utilization of forest wealth must, therefore, be an important part of our national policy, if we have to succeed in increasing national prosperity, but here also our watchword should be that we create more than we destroy and turn all our uncultivable area capable of being brought under the plantation into lands yielding either valuable forest wealth or performing the useful function of sentinels against the forces of elements, water, weather and sands.

The Protection of World Resources

By Lieut.-Col. R. W. Burton, Indian Army (Retd.)

On the 5th October 1948 was established at Fontainebleau, Paris, "The International Union for the Protection of Nature". Thirty-three countries were represented at the Conference—the delegate for India being Sri H. J. Bhabha. The Financial Committee of the Union put forward a suggestion for collecting necessary finance by subscriptions expected from governments estimated on a population basis, and from non-governmental national organisations, institutions and associations.

The rate for a country with population of over 20 million inhabitants is suggested as 2,000 dollars a year (Rs. 4,776) and for associations 50 dollars a year (Rs. 120) or such amount above that (or below it) as the institutions and associations feel themselves able to subscribe. The Bombay Natural History Society has applied for membership and suggested their annual fee may be Rs. 200.

The new-born Union is of world-wide importance; so it is vital that it be supported in a practical way by membership of as many organisations, associations and institutions as possible. It is hoped that all such will apply for membership and aid the preservation of world resources with essential funds. The address of the Union is 42, Rue Montoyer, Brussels, Belgium, and the Secretary-General is M. Jean-Paul Harroy.

Constitution and Objects

The text of the Constitution of the Union defines "Protection of Nature" as "the preservation of the world biotic community or man's natural environment, which includes the earth's renewable natural resources of which it is composed and on which rests the foundation of human civilisation." The Preamble further declares that the time has come when human standards of living are being depressed because natural resources are becoming inadequate for their maintenance. All of us in India know that this is a fact. A practical illustration is that deforestation in this country has for sometime past exceeded the safety point, and it has been recently stated on reliable authority that about one-fifth more than the present area under forest is essential to be established for the proper progress of India.

The objects of the Union are—

1. To encourage and facilitate co-operation between governments and national and international organisations concerned with, and persons interested in, the "Protection of Nature".
2. To promote and recommend national and international action in respect to—
 - (a) The preservation in all parts of the world of wild life and the natural environment, soils, water, forests, including the protection and preservation of areas, objects and fauna and flora having scientific, historic, or aesthetic significance by appropriate legislation such as the establishment of national parks, nature reserves and monuments and wild life refuges, with special regard to the preservation of species threatened with extinction;
 - (b) The spread of public knowledge about "Protection of Nature";
 - (c) The promotion of an extensive programme of education in the field of "Protection of Nature";
 - (d) The preparation of international draft agreements and a world-wide convention for the "Protection of Nature";
 - (e) Scientific research relating to the "Protection of Nature". Also, the Union shall collect, analyse, interpret and disseminate information about the "Protection of Nature". It shall distribute to governments and national and international organisations, documents, legislative texts, scientific studies and other information concerning the "Protection of Nature".

Conference at Lake Success

Under the aegis of UNESCO and with the important and essential aid of the I.U.P.N., an International Conference on the "Protection of Nature" was assembled at Lake Success from the 22nd to 27th August 1949. The six sections of this Conference dealt with the following points: (a) mineral resources, (b) fuel and energy, (c) water, (d) forests, (e) land resources and (f) wild life, fish and marine resources.

None of the six hundred experts assembled at Lake Success, by the very nature of their specialised knowledge, could be indifferent to the problem of nature protection which encompasses the huge field of the conservation of natural resources. Among the members chosen for the General Committee of the Conference was Dr. S. L. Hora, the present Head of the Zoological Survey of India, representing India.

The function of Secretary-General of the Conference was conferred upon the Secretary-General of the I.U.P.N., and the Secretariat of the Union distributed to the assembled delegates the English and French versions of the one hundred and fifty reports on the various subjects which it had succeeded in gathering together for the Conference.

The Conference passed twenty-one resolutions of world-wide importance, all but four of which are of great moment to this country. The first of these was admirably framed by Dr. Hora. Those interested will find in *Science and Culture* for May 1950 a comprehensive review of these resolutions as affecting India.

In connection with all this it may be remarked that "the first necessity if man is to study life is to cease to destroy it" and "where there is no vision the people perish". Perhaps those basic truths will cause thoughtful people to take interest in the many facets of the ideology of this new-born Union. As in regard to power and a real interest in the subject.

The Chenchus

By Sri P. SRINIVASA RAO, District Forest Officer, Kurnool District

The Chenchus are a class of aboriginal tribes living in small groups called *gudems*, mostly in the Nallamalais in the three forest divisions of Kurnool West, Kurnool East and Guntur. The *gudems* are mostly situated in the Reserve Forest, except a few which lie in the plains bordering the reserve. The total population of the Chenchus is estimated to be somewhere in the neighbourhood of 5,000.

Like most hill tribes of an aboriginal character, the Chenchus were wild in their nature, living in the interior jungles of the Nallamalais on the roots of forest shrubs and climbers, on minor forest products and forest game. Early in the nineteenth century, the liberties of the Chenchus, who were till then monarchs of the forest areas, were curtailed by extension of cultivation. With the introduction of forest conservancy in 1860, they resorted to malicious thieving and setting fire to the forests. Ways and means were therefore thought out as early as 1860 to reclaim the Chenchus from vagabondism to agricultural pursuits, and since then this process of reclamation has been going on. A Special Chenchu Officer was also appointed to work out welfare schemes for the tribe, but this post has since been abolished and the work is now being carried on by the District Forest Officers of the three divisions with the Collector of Kurnool as the Special Chenchu Officer.

The Government now spend through the Forest Department about Rs. 50,000 annually on Chenchu welfare schemes which include education, aid to cultivation, co-operation and medical treatment.

Education.—There are twenty-one Elementary schools exclusively for the Chenchus in the three Forest divisions of which one in Kurnool West Forest Division is exclusively for girls. In all these schools, education is imparted up to Class V only. This year a Higher Elementary Residential School for Chenchu boys and girls has been started in Kurnool West Forest Division. The pupils in all the Elementary schools are given free midday meals in addition to free supply of books, slates and clothing.

A typical Chenchu Gudem

In the residential school started this year in Kurnool West Forest Division, the pupils are given free boarding and lodging in addition to all other facilities free of cost.

In addition to lessons the pupils are taught handicrafts such as gardening and crop cultivation in small plots attached to the school.

A Chenchu Home or Hostel is also run for the benefit of boys who wish to continue their studies beyond Class V at Atmakur (Kurnool West Division). All facilities are provided for the students such as free boarding and clothing, in addition to free supply of books, etc. Tuition is also provided during outside school hours to coach up the boys.

Agriculture.—The Chenchus are permitted as a special concession to cultivate lands within the limits demarcated as *gudem* enclosures in Reserve Forest. The rough area cultivated annually in the three Forest divisions is given below:—

	Acs.
Kurnool East	300
Kurnool West	500
Guntur	320

The chief crops sown are korra, arika, horsegram and soja.

Co-operation.—There is one society called the Chenchu Co-operative Purchase and Sales Society in Kurnool West Division, with a Forest Ranger as Secretary, run exclusively for the benefit of the Chenchus of some of the *gudems*. The Chenchus of these *gudems* are given the monopoly to collect minor forest produce from the Nallamalai hill forests and they are paid collection charges at fixed rates. The produce is sold by the Secretary in retail and also against indents received from the Forest Utilisation Officer, Madras. The profits of the society are utilised for their betterment.

Medical treatment.—There is a hospital in Kurnool West Division exclusively for the Chenchus with a Sub-Assistant Surgeon in charge. An in-patient ward is also maintained in the hospital. Free diet and clothing are supplied to the in-patients treated in the hospital. There is a proposal to construct a permanent building for the hospital. The Sub-Assistant Surgeon visits a number of *gudems* in Kurnool East Division also periodically.

Drinking water.—Good water facilities by way of perennial streams are available near most of the *gudems* and in other wells which have been dug by the Forest Department. Annually about Rs. 200 is being spent for repairs to these water sources near *gudems*.

Loans.—To encourage the Chenchus to take to agriculture, interest-free loans are granted for the purchase of bullocks, the loans being recoverable in easy instalments in five years.

Cattle breeding.—The Chenchus enjoy the unique concession of free grazing up to a prescribed limit. What is more, they are also allowed to have a certain number of

goats which is a prohibited animal inside the Reserve Forest.

Employment in Government Service.—There are at present the following number of Chenchus employed in the Forest Department:—

Forest Guards	7
Reserve Watchers	16
Headmen and Deputy Headmen.	30

In addition to providing them with these amenities, their condition is further bettered by employing them in forest works such as construction and repairs of roads, bamboo cutting, timber extraction, and collection of minor forest produce. It has also been made obligatory on all departmental contractors to employ only Chenchu labour available in the neighbourhood of the leased area and as a result they earn about Re. 1 to Rs. 2-8-0 per day.

Another source of income to the Chenchus is the collection of what is called *metta* fees at the rate of one anna per head at certain fixed points called *mettas* during the annual Mahasivarathri festival. This is done with the consent of the Forest Department. In return for the fees the Chenchus afford protection to the pilgrims visiting Srisaalam against theft of their property or damage to their lives. They also earn wages by carrying *dhories* during the festival time.

The collection of *metta* fees forms an appreciable source of income to the Chenchus which is somewhere in the neighbourhood of Rs. 6,000 annually.

Working of the Forest Department

The operations of the Forest Department during the year under review 1948-49 continued to be satisfactory. There was no change in the policy of the Government in regard to the administration of the reserve forests. The policy of working the forests to the best advantage with silvicultural safeguards and with special attention to regeneration was continued.

The total revenue realised was Rs. 157.15 lakhs compared with Rs. 180.35 lakhs in the previous year. The decrease in the revenue was mainly under timber. The expenditure incurred was Rs. 78.66 lakhs when compared with Rs. 85.75 lakhs in the previous year. The surplus of revenue over expenditure was thus Rs. 78.49 lakhs compared with Rs. 94.60 lakhs in the previous year.

In order to make good the over-exploitation of the forests in the past and secure adequate supplies in the future, concentrated regeneration of the dry fuel forest in the more productive areas was carried out to the extent possible. An area of 2,550 acres was planted with casuarina and an area of about 4,346 acres of fuel forest was regenerated.

The total output of timber was 72,050 tons valued at Rs. 93,92,467. The timber forests were worked out mainly under the clear felling or the selection system. The area of clear felling during the year under review was 2,427 acres and this area was planted up with timber

"Wild Ducks: Paddy Pest"

Lieut.-Colonel R.W. Burton, Indian Army (Retired), writes from Bangalore: Some of the migratory wildfowl which are winter visitors to India do damage to paddy fields, as has been related at page 15 of the April 1950 issue of *Madras Information*. In the United States of America there is similar trouble due to wild geese in particular, but no wholly satisfactory method of dealing with it has yet been found. The sowing of what are called 'decoy crops' has been of use in some areas.

Expenditure.—Roughly about Rs. 30,000 to Rs. 50,000 are spent annually on the staff and other activities connected with the amelioration of the Chenchus.

All the ameliorative measures referred to are being carried on under the direct supervision of the Forest Range Officers under instructions from the District Forest Officers. All these have been highly beneficial to the Chenchus and have greatly improved their general, economic, social and moral conditions.

species, mainly teak. Selection fellings were made over an area of about 20,639 acres and these areas have been left to natural regeneration. An area of 7,084 acres was also clear felled for casuarina planting and concentrated regeneration with other species.

Wattle Plantation.—An area of 507 acres was planted with wattle in the Madhurai and Nilgiris divisions.

The Forest Department continued to render all possible assistance to villagers. Free grants of building materials were made to the poor to rebuild their houses destroyed by fire or flood. Free removal of thatch and fodder in head loads was continued except in certain small areas closed for silvicultural or other special reasons.

The Department continued to take interest in the amelioration of the hill tribes. The hill tribes continued to enjoy the privileges of free removal of forest produce for domestic and agricultural purposes, free grazing and hunting, in return for which they were required to protect the forest from fire and theft and to supply labour for forest works for which they were paid at local rates.

The revenue from minor forest produce showed a small increase. It was Rs. 9,16,929 compared with Rs. 8,89,599 in the previous year. The increase was due to better prices obtained for tooki leaves and avaram bark. As a measure of retrenchment the Pyrethrum Division in the Nilgiris was abolished.

The Winged Menace

How destructive is the Locust?

This is not a mere rhetorical question, for during the locust cycle of 1926-31, India suffered a loss in crops estimated at Rs. 10 crores. The destructive propensities of locust swarms during a serious infestation affect not only the locust belt extending from India to West Africa, but also Southern USSR and Southern Europe.

Effective measures to meet a threatened invasion of locusts this summer were recently decided upon at Jodhpur, where representatives of the Governments of Rajasthan, Pepsu, Madhya Bharat, Madhya Pradesh, Bombay, Saurashtra and other areas met to take concerted action under the guidance of the Central Government.

Locusts are insects of the grasshopper group, but unlike the ordinary grasshopper, they appear in enormous swarms and fly long distances—from Assam in the East to Madras in the South. Of the several species of locusts found in the World, India has three, i.e., the desert locust, migrating locust and Bombay locust, each having distinctive markings. During the last 90 years, there have been nine locust cycles in India, the last one being during 1940-46.

In India, the permanent outbreak areas are the desert parts of Jodhpur, Bikaner and Jaipur, divisions of Rajasthan and the adjoining desert parts of Bombay, Saurashtra, the Punjab and Pepsu. Outside the Indian border, the desert locust has permanent breeding grounds in parts of Sind, Khairapur Mirs and Bahawalpur and the western parts of Baluchistan, Iran, Arabia and East and North Africa.

The swarms which develop in India generally fly in the autumn to winter rainfall zone, i.e., Baluchistan, Persia and Arabia and breed there during spring and early summer.

The locust is most vulnerable during the hopper stage when it can be destroyed by trenching. Trenches are dug in front of marching hopper bands, and are generally supplemented by tin-sheet barriers which are placed at an angle oblique to the direction of the drive. Demonstration of how deep and smooth a trench should be.



The resulting swarms invade India in June and July and sometimes they also breed in the spring particularly in the Punjab and the Uttar Pradesh.

The staff of the Central Government's Locust Warning Organisation patrols the permanent breeding grounds and studies the fluctuations in the locust population, breeding, etc., and undertakes control operations in the initial stages of the outbreak. In cases of a threatened invasion, the staff is extended and a "Control Wing" assists the local organisation in taking adequate control measures and co-ordinating the operations in the various areas.

Life History

The life cycle of this destructive insect consists of the egg, hopper and adult. A female locust lays up to 800 eggs in her lifetime which hatch in about two weeks and young tiny black hoppers emerge. These congregate in bands of millions of ravenous young insects crawling and hopping into rich agricultural lands. They grow in size shedding their skin five times at intervals of three to ten days. In about a month, they develop into pink adults ready to fly long distances in their work of destruction. Locusts relish practically all types of vegetation. They enter houses, wells, ponds and swarm even railway tracks holding up trains for hours.

Control Measures

The locust is most vulnerable during the hopper stage when it can be destroyed in one or more of the following ways:—

Trenching.—Trenches are dug in front of marching hopper bands the width and length of the trench varying according to the stage of the hoppers. For young hoppers, a trench 18 inches deep and 12 inches wide is enough. The trenches are generally supplemented by tin sheet barriers which are placed at an angle oblique to the direction of the drive.

Burning.—Hoppers who have swarmed on bushes are burnt, flame throwers being used wherever available. A barrier of tin sheets is erected round the bush before it is set on fire.

Baiting.—Moist posion bait is spread around the bushes where hoppers are congregated or in front of marching bands.

Dusting.—Hoppers on bushes are dusted with contact insecticides like Benzene Hexachloride, by hand or power-driven dusting machines.

As in the case of human warfare, intelligence reports correctly and quickly received indicating the locality, the size of the swarms, the colour of the locusts, the direction, damage caused, methods of control and results achieved, are of very great importance. They enable counter-measures to be taken in time, which mean the difference between widespread destruction, and victory over one of the greatest scourges of the farmer.

Increase in Rice Outturn

By Better Milling Methods

As a result of the visit of Sri S. Varma, Honorary Adviser to the Ministry of Food, to various States, it has been proved that as against the smaller outturn, both of parboiled and raw rice in a huller type of mill, a modern sheller type mill would give an average outturn up to 77 per cent of parboiled dehusked rice, and 75 per cent of raw dehusked rice.

A number of suggestions have therefore been made by the Central Ministry of Food to all State Governments to increase the production of rice to the maximum through better milling methods. Some of these are:—

(a) All rice mills in the States should be required to obtain a licence from the Government. In some States, this is already being done, but where the existing law does not require rice mills to obtain a licence, it has been suggested that the law should be suitably amended.

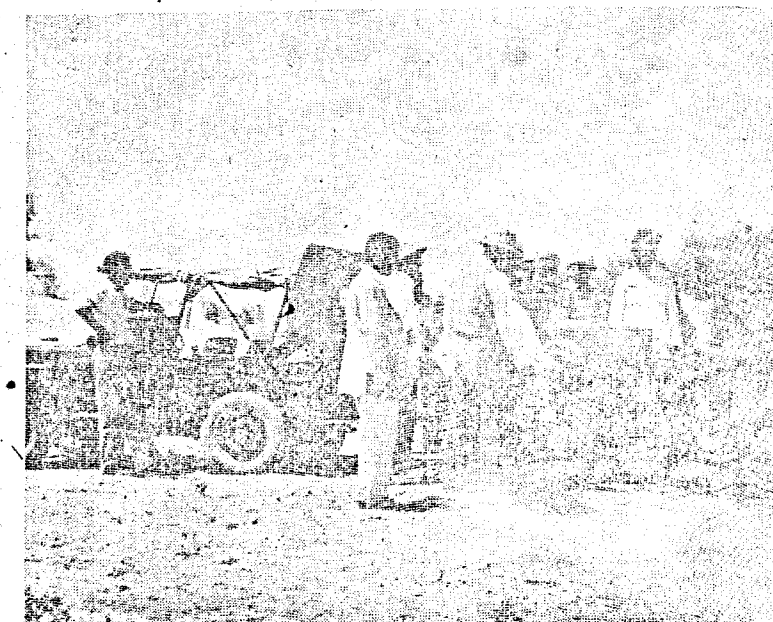
(b) In addition to such other conditions as State Governments may prescribe before a licence is granted, it should be obligatory on the mill that it shall not run on more than 450 revolutions per minute. At present, some mills run on double this number.

(c) No licence should be given for the establishment of any new huller type mills or for increasing the hulling capacity of such mills. Encouragement should be given for the conversion of existing huller type mills to those of the sheller type.

(d) As parboiled rice gives a high yield and has better nutritive qualities, its production should be encouraged. In areas where production of raw rice is necessary because of the preference of consumers, steps should be taken to utilize to the maximum extent, the sheller type mill capacity in the production of raw rice, and the huller type mill capacity to the maximum extent in the production of parboiled rice.

To ensure that the conditions prescribed in the licence have been actually carried out, adequate inspection arrangements should be made and defaulters given exemplary punishment.

One of the conditions for the grant of a licence in future will be that the rice mill must have a paddy separator. The first hulling ordinarily produces a mixture of rice with a high percentage of unhusked grain. This is particularly so if comparatively low-polished rice or unpolished rice has to be produced. Ordinarily this mixture is passed again through the huller in order to dehusk the unhusked paddy in the mixture, with the result that not only the grain which has already been dehusked acquires a higher polish but also the percentage of brokens increases considerably. With a paddy separator, it would be possible to separate the unhusked grain from the husked grain, only the unhusked grain being passed again through the huller. This will avoid the loss from high polishing and brokens.

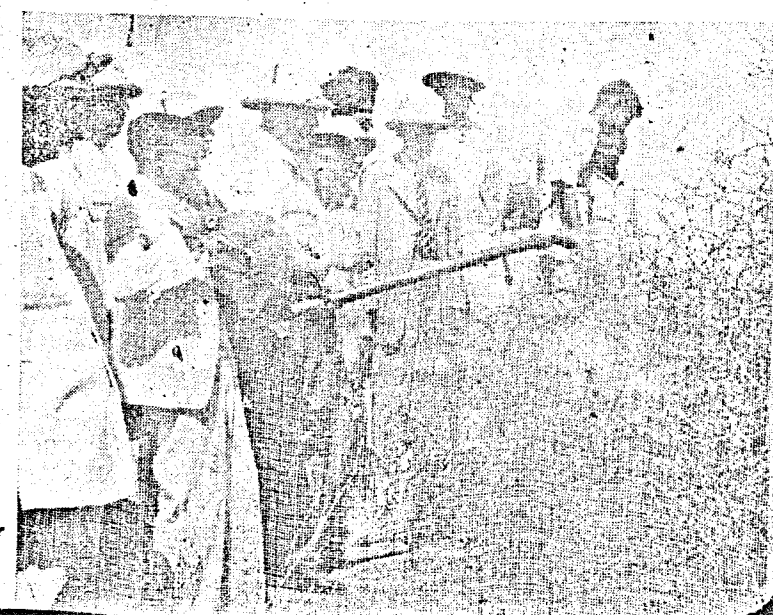


Power duster at work

"The part which trees play in moderating the rigours of climate and meeting the growing menace of the desert or the trespass of the river on fertile soil can hardly be over estimated."

—Sardar Vallabhai Patel

The locust can be destroyed by dusting. Hoppers on bushes are dusted with contact insecticides, by hand or power-driven dusting machines. The orient hand duster at work



Food Offences and Punishments Awarded

During the fortnight ending 31st March 1950, six hundred and ninety-two cases of prosecutions were disposed of in the State of Madras in respect of food offences. Cases in which heavy punishments were awarded in the districts are described below :—

Krishna District.—(i) Garapato Venkataraghavayya, clerk in a factory, was sentenced to pay a fine of Rs. 200, in default to suffer simple imprisonment for two months for selling rice without licence.

(ii) Bolisetty Rukminayya, merchant, was convicted and sentenced to undergo rigorous imprisonment for two months and to pay a fine of Rs. 200, in default to undergo rigorous imprisonment for fifteen days, for selling wheat above the controlled rate and having wheat in his possession without licence.

South Kanara District.—(i) Nandu Kajava, Nandavara village, Mangalore Taluk, who failed to deliver the stock demanded and to declare the yield, was fined Rs. 1,010 and imprisoned till the rising of the court.

(ii) P. Perghade Bhandary, Palipady village, Mangalore Taluk, was fined Rs. 210 for failure to declare yield and deliver the rice demanded.

Kurnool District.—Venkadari Kondiah of Pagdroy who stored foodgrains without a licence was sentenced to pay a fine of Rs. 200, in default to suffer rigorous imprisonment for two months.

Nellore District.—K. Rangiah was fined Rs. 400, in default rigorous imprisonment for six months and N. Balarami Reddy Rs. 250, in default rigorous imprisonment for three months and K. Chinchu Reddy Rs. 250, for illicit purchase and transport of foodgrains.

East Godavari District.—(i) Thummalapalli Pattabhiramayya Karapa was fined Rs. 300 and in default rigorous imprisonment for three months for running a mill without licence.

(ii) Karma Madhavarao, Samalkota, was sentenced to pay a fine of Rs. 200, in default to suffer rigorous imprisonment for two months.

(iii) Moddipadi Tatayya of Vadlamuru was fined Rs. 200 for illicit sale of paddy.

Salem District.—(i) Abdul Subhar, son of Md. Kasim, merchant, Tirupathur, was convicted and sentenced to pay a fine of Rs. 500 and in default to suffer rigorous imprisonment for two months for transport of foodgrains from Salem District to North Arcot District.

(ii) Manthiri Goundan alias Karia Goundan, son of Kolanda Goundan, Ragupathi alias Palikodithan, son of Perumal Goundan, Saragampatti, Dharmapuri Taluk, were fined Rs. 300, in default to suffer rigorous imprisonment for six weeks for unauthorised purchase and sale of foodgrains.

(iii) V. Raman, Attur, was sentenced to pay a fine of Rs. 200, in default to undergo rigorous imprisonment for two months for sale of milo without authorisation.

Coimbatore District.—(i) Palaniappa Mudaliar was fined Rs. 300 and in default rigorous imprisonment for three months and Ahilandammal and Venkatachalam were each fined Rs. 200 and to undergo simple imprisonment till the rising of the court for illegal possession of rationed articles.

(ii) Doraisamy Pillai was sentenced to undergo simple imprisonment till the rising of the court and to pay a fine of Rs. 250 for possession of bogus ration cards.

Tiruchirappalli District.—Ahmad, who imported rice in bullock cart without permit into rationed area, was fined Rs. 200, in default rigorous imprisonment for two months.

During the fortnight ending 15th April 1950

Nellore District.—M. Venkiah was convicted and sentenced to pay a fine of Rs. 500 for illicit transport of foodgrains.

Salem District.—(i) Annamalai was fined Rs. 200, in default rigorous imprisonment for two months for illicit possession and transport of 487 Madras measures of paddy.

(ii) Mathi alias Narayana Chetty, son of Muniappa Chetti, trader, Krishnagiri, was fined Rs. 200, in default to suffer rigorous imprisonment for six weeks and Venkatrama Chetti was fined Rs. 200, in default to suffer rigorous imprisonment for two months for unauthorised purchase of foodgrains.

Tirunelveli District.—Sakthivel, who attempted illicit transport of rice, was fined Rs. 250, in default to undergo rigorous imprisonment for four months.

Madras City.—Ponnammal, ration shop owner, 35, V.V. Koil Street, Choolai, was sentenced to undergo rigorous imprisonment till the rising of the court and to pay a fine of Rs. 500, in default to undergo rigorous imprisonment for six months and Chakravarthi, clerk in the above ration shop, was convicted to undergo rigorous imprisonment for three months and to pay a fine of Rs. 250, in default to undergo rigorous imprisonment for three months for having sold rice to persons otherwise than on a ration card and for having made false entries in "C" Register and disposing of rice illegally and for shortage of rice in the stock rationed.

Glimpse Into Greens

By Sri C. BALASUBRAMANIAN, B.A., B.Sc. (Ag.), Agricultural Meteorologist, Coimbatore

"Greens" is a household word indeed. It is very popular among doctors, plant breeders, nutrition experts—in fact, with everyone of us. When a patient complains of indigestion and associated complications, the first thing that the doctor advises him to do is to eat plenty of greens. If a paddy grower complains that his yield has gone low, the advice that is invariably given to him by the Agricultural Department is to apply plenty of available green leaf, preferably in combination with artificials and to use Departmental pedigree seeds for sowing. Similarly, when a cattle owner brings to the notice of the officer of either the Agricultural or the Animal Husbandry Department that his cattle are running down in condition, he is generally advised to graze well his cattle or to include some available green fodder in the ration, if food grazing is not possible.

The value of green manure will be obvious in soils of average fertility with less than 0.07 per cent of available nitrogen and less than 0.06 per cent of phosphoric acid. If the green manure crop is raised in the field and then imbedded in the soil at the right stage as recommended by the Department, it is called "Green Manuring". Instead, if green leaves are brought from outside and then applied to field, it gets the nomenclature of "Green Leaf Manuring". Effect of green manuring will, of course, vary in different localities. In the case of paddy, the increase may be anything from 8 to 25 per cent with an application of three to four thousand pounds of leaf per acre. Its effect will be marvellous, particularly in bad seasons.

Heavy dose of green manuring to the extent of six to eight thousand pounds per acre to increase the fertility of the soil should always be supplemented by some form of phosphatic manures such as bonemeal and superphosphate. The Departmental Officers will give all particulars about the type and dose of green manuring and the manner of obtaining the same for the different localities with due consideration of the local agricultural practices and climatic conditions.

Nutrition of Cattle

Coming to the nutrition of cattle, which form an indispensable adjunct in successful farming, inclusion of either green fodder in the ration of the stall-fed animals or daily grazing of animals in extensive green pastures is always recommended by the officers of the Departments of Agriculture and Animal Husbandry. In these days of struggle for space to produce enough food materials for humans, one is likely to brush aside the time-honoured value of having a good paddock in his farm premises. Even for cultivators of that bent of mind the Department has got some advice to offer. Let them raise sweet potato, groundnut, sugarcane or any other crop which they prefer; but they can have sufficient particulars in regard to the quantity and manner of utilising the plant material, not fit for human consumption to the benefit of the cattle.

To cite an instance, sweet potato (*Ipomea batatas* poir) is a familiar tuber crop in South India. In these days of advocacy for synthetic food materials, sweet potato has, of course, a bright future. The succulent young vines

of this crop are very good for cattle as green fodder since they contain 2.58 per cent protein, equivalent to 19 per cent on dry basis. The Department's finding is that 20 lb. of green vines a day would supply as much protein as one pound of groundnut cake or 3 lb. of cottonseed. On this basis the vines cannot entirely replace the concentrates in the routine ration of cattle as they exercise a laxative action.

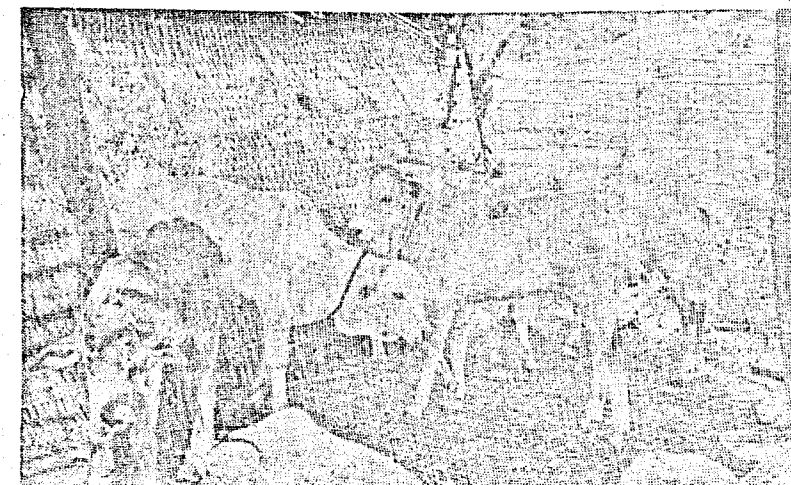
In fact, every discreet farmer must provide in his cropping scheme for the nutrition of his cattle also. In view of the non-availability of some concentrates and the prohibitively high prices of practically all the concentrates available locally, he should include protein-rich fodders in his cropping. There are very many crops that can be suggested; chief among them being the leguminous plants, as they have the unique capacity to assimilate atmospheric nitrogen and fix it in their tissues. The Agricultural Department will give advice to ryots and suggest suitable legumes, that will not be fastidious about their requirements of soil and climatic conditions. When green fodder is available in plenty, it can be preserved by proper ensilage to be used in periods of scarcity.

Safe Limits to be Observed

There are certain points that are to be borne in mind at the time of inclusion of green fodder in the ration of animals. Green biting should not be encouraged until the calf gets accustomed to gruel. Particulars of the safe limits of the quantity of green fodder in the ration for the different types of animals are given hereunder :

Number.	Class of animal.	Quantity of green fodder like Guinea Grass, Napier Grass, etc., that can be fed per animal per day (in lb.)
1.	Calves 7 to 9 months old ..	5
2.	Calves 10 to 12 months old ..	10
3.	Young heifers ..	10
4.	Cows in milk ..	50 (20 lb. morning and 30 lb. evening).
5.	Bullocks ..	20

Calves like these need nutrition factors in their diet



These quantities are the maximum limits and therefore not to be exceeded on any account. Highly nutritious green fodder like lucerne (*Medicago sativa*, L.) should be fed only in small quantities—say a maximum of 5 lb. per head per day; if not, it is likely to cause "tympanitis" (acute disorders in the stomach). They are in addition to dry fodder that is to be fed *ad lib*. Cows nearing parturition should not be given green fodder. Green fodder should not form the sole roughage for the work-bullocks. In addition, the green fodder obtained from a field of cholam ratoon crop should never be fed to cattle till the crop is a month old. If fed, animals will die due to its containing toxic hydrocyanic acid. Hints of this type

Cattle Need Nutritious Feed

The findings of the Madras Agricultural Department are that protein is required for maintenance and growth and also that the quantum of dietary protein is a linear function of work turned out. It, therefore, becomes clear that work-bullocks should be in their proper protein balance if the best out of them is to be extracted. Even climate is in our favour to this end. It has been assessed that the Indian bullocks require only 100 grams of digestible protein per head per day, when the similar requirements in the foreign countries is 200 grams.

Nature is, as usual, very bountiful in her resources of protein. It can be had from a variety of sources of both vegetable and animal origins. Cereal proteins have good nutritional value, though they are inferior to animal proteins. The proteins of legumes are the poorest, perhaps due to their "cystine" deficiency. Nuts, yeast, potato, etc., also contain proteins. The relative nutritive value of the proteins of the various grains is still a matter of uncertainty.

Cheap sources of Protein

In spite of the availability of protein from various sources, an ordinary ryot finds it difficult to maintain work-bullocks in good condition, mainly because of the prohibitively high cost of foodstuffs of really good nutritional value. This state of affairs can be solved easily if the cheap measures adopted in certain localities are followed in others also to the benefit of the entire country.

For example, in Travancore State, in Krishnagiri Taluk (Salem District), in Tirupattur Taluk (North Arcot District) and in certain parts of Tirunelveli District, tamarind seed is fed to cattle as a concentrate. Tamarind seed is easily available everywhere, but its use as cattle feed is known only to a few. In Krishnagiri Taluk, for instance, there are some small-scale factories engaged in the conversion of the ordinary tamarind seed into an useful cattle feed. The furnace used for the roasting of tamarind seed is only a modified form of the Sindhiwaha furnace, recommended by the Department of Agriculture for jaggery manufacture.

Before being utilised as a cattle feed, it is recommended that the seeds be roasted, husk removed and then soaked in water after crushing. The "testa" or outer integument

can be had from the officers of the Madras Agricultural Department.

It is to be remembered that green fodder and pasturage form the assured and cheap source of vitamin D, so important to the proper nutrition of cattle. Rich forests will, of course, provide good pasturage. Perhaps, this is what is meant by the old saying that "Rich forests make strong cattle; strong cattle, prosperous husbandmen; prosperous husbandmen will care for the temples; well-cared for temples are the glory of the King". This explains in a vivid manner the fact, namely, that the prosperity of a country depends mainly on her cattle wealth.

of the seed contains an astringent mucilaginous material which is likely to induce choking and should therefore be removed. Roasted seeds contain 16.12 per cent crude protein. To start with, one-fourth the quantity of protein in the concentrates may be substituted by an equivalent in tamarind seed and later increased to even half the quantity.

From Babool and Tobacco

Another example is the pods from White Babool tree (*Acacia alba wild*). They have a good feeding value, being rich in crude protein (14.86 per cent) and minerals (Lime—CaO—1.61 per cent) and (Phosphoric acid—P₂O₅—0.44 per cent). They are powdered and fed to cattle by the Pattayagar of Palayakottai, the famous Kangayam cattle breeder. In villages, plenty of pods are available, but their use as cattle feed is yet unknown to very many.

Tobacco seed cake can be safely fed to cattle. Feeding trials have been conducted by the Madras Agricultural Department. It contains 30 to 35 per cent crude protein and is free from nicotine. This could substitute the usual gingelly and groundnut cakes as cattle feed.

Fish meal and molasses can be fed to cattle, the latter, of course, not as a source of protein. The officers of the Madras Agricultural Department will give all practical suggestions to those who want to reduce the cost of maintenance of work-bullocks by having recourse to stuffs that can be had for a nominal amount. But it is to be remembered that seldom do cattle take to new feeds kindly. They should be gradually introduced in the dietary of animals in the place of the usual concentrates.

If the State and the public work together towards this end, the condition of the work-bullocks is bound to improve miraculously. Better condition of health means better outturn of work, which, in turn, will improve the productivity of the land and add to the plenty of the country.

Here a few practical suggestions are offered in regard to cheap means of meeting the protein requirements of work-bullocks. It needs no mention that bullock power has got its own importance in the agricultural field, particularly under the conditions obtainable in South India.

—SRI C. BALASUBRAMANIYAN.

From Source to Tap

The Story of Water Supply

By Sri C. NARASIMHAM, M.A., B.L., Commissioner, Corporation of Madras.

The water-supply for Madras City is obtained from the Kortalaray River and its tributaries. A masonry weir six feet high has been built across the Kortalaray River at Tamarapakkam, about 17 miles north-west of Madras to divert the flood water and lead it through the upper supply channel to Cholavaram Lake and from thence to the lower supply channel to the Red Hills Lake from which the City supply is drawn. Both these lakes also receive a considerable supply from their own catchment areas to the extent of 140 square miles. The cost of these works which were completed in 1870 was borne entirely by the Government of Madras and their maintenance is in the hands of the Government Public Works Department.

The water-supply to the City is drawn directly from the Red Hills Lake through an intake tower known as the "Jones Tower" located at the deepest point in the lake. The water drawn through the intake tower passes through a tunnel and enters a screening chamber and roughing filters at Red Hills where grosser impurities are removed by passing the water through a gravel bund. The water then flows by gravity through two masonry arched underground conduits, each seven miles long and enters the Kilpauk Water Works where it is filtered, chlorinated and pumped into the City distribution system. All these works were constructed by the Corporation of Madras and are maintained by them. The Corporation has to pay the Government for all water drawn from the Red Hills Lake for City supply at Re. 1 per 1,000 cubic yards, subject to a maximum payment of Rs. 55,000 per annum, the quantity of water being measured by a weir recording apparatus installed at the Roughing Filters.

This lake is situated about eight miles to the north-west of Madras on the Great Northern Trunk Road. The water from this lake and the Cholavaram Lake further north is also used to irrigate about 7,500 acres of wet lands. The total quantity of water drawn from the Red Hills Lake for the City supply in a normal year will be about 8,750 million gallons or 1,400 million cubic feet. The quantity of water used for irrigation will be about 340 million cubic feet.

Poondi Reservoir

To meet the increased demand for water for the growing needs of the City it was found necessary to augment the source of supply. After investigating various possibilities it was decided in 1940 to construct a dam across the Kortalaray River and form a reservoir at Poondi, 12 miles above Tamarapakkam Anicut. The Poondi Reservoir is for impounding the greater flood discharges which normally surplussed over the Tamarapakkam and Vallur Anicuts and wasted into the sea. The reservoir is designed to impound 2,500 million cubic feet of water (the full reservoir level being 137 feet) and will have a water spread of nearly 12½ square miles. Its storage capacity will be nearly equal to the combined storage capacity of the Cholavaram and Red Hills Lakes.

The construction of the Poondi Reservoir was inaugurated in August 1940 and completed in June 1944 by the



Public Works Department. The cost of the works, estimated at Rs. 65.36 lakhs, was met by the Corporation by taking loans from the Government to the extent of Rs. 39.66 lakhs, the remaining Rs. 25.70 lakhs having been paid to the Corporation as a free grant by the Government. The maintenance of the reservoir is in the hands of the Public Works Department, the cost thereof being entirely borne by the Corporation every year.

The water impounded at Poondi Reservoir is drawn into the Red Hills tank through the Kortalaray River up to Tamarapakkam Anicut and from there through the upper and lower supply channels to Cholavaram and Red Hills Lakes.

Conduits Constructed

Till 1914, water from the Red Hills Lake was drawn through an open channel up to Kilpauk and it was directly let into the distribution system without any sort of filtration or pumping, sedimentation by storage at Red Hills Lake being considered sufficient safeguard for ensuring a pure supply of water. Although this was decided improvement over the polluted water supply from wells and tanks on which the City depended prior to 1870, it had many disadvantages. In 1914 a rectangular masonry conduit five feet by four feet with a maximum carrying capacity of 23 million gallons of water per day was constructed to lead the water from the Jones Tower at the Red Hills to the then newly constructed Water Works at Kilpauk.

The conduit is provided with air-holes filled with air inlets or outlets alternately at about every furlong. A second rectangular conduit six feet six inches by four feet with an arched roof and with a maximum carrying capacity of 32 million gallons per day has been constructed and brought into use from 1949. Two villages en route—Surapattu and Madanankuppam, which were originally

PROHIBITION

do everything or want to do everything which is fashionable. The virtue in greatest demand is conformity.

Our western rulers with their long-standing habits of drink, naturally in the more affluent and dominant circumstances in which they found themselves in this country, indulged more and more freely in drink and set the pace for society. With our glamour for western mode of life our educated people initiated not only the habits of taking food, mode of dress, but even the drink habit of their masters. I know three of my colleagues in the University and at the Bar who made it a habit to drink regularly every evening after they began to get on in their profession and in the life just because it was *a la mode*: everybody is doing it.

Hiding From Conscience

'Everybody,' that is, all those who counted in their eyes. But the cause is deeper. In a short essay on "Why do men stupefy themselves?" I think Tolstoy came to give us the correct reason.

He says the real reason why people take to drink is traced to some desire to hide from oneself the demands of conscience. To attain this end he says there are two means—one external and the other internal. The external means consists in occupations that divert one's attention from the indications given by conscience. The internal method consists in drinking conscience itself. The external means do not quite divert attention from the consciousness of discord between one's life and the demands of conscience. One is not living as conscience demands, yet lacks the strength to reshape one's life in accord with its demands, and in order to be able to go on living as before one has recourse to the reliable internal method which is that of darkening conscience itself by poisoning the brain with stupefying substances.

So Tolstoy's theory is: people drink not casually, not from dullness, not to cheer themselves up, not because it is pleasant, but to drown the voice of conscience in themselves.

Slow Poisoning

About the moderation argument this is what he says:—

"Terrible, as they are described to us, are the consequences of opium and

hashish on individuals; terrible, as we know them, are the consequences of alcohol to flagrant drunkards; but incomparably more terrible to our whole society are the consequences of what is considered harmless, moderate use of spirits, wine, beer and tobacco, to which the majority of men, and especially our so-called cultured classes, are addicted. It is assumed that

A MORAL REVOLUTION

"Prohibition is a moral revolution. In all ages and countries, gay dogs and wastrels have taken to drink. But after the British rule, on account of Western habits, drink came to be accepted not merely as a vice to be tolerated but a fashion to be encouraged. The principal aim of prohibition as I conceived it, is to restore the old moral values. Drink is not merely an evil but a crime, sin, to be tolerated in addicts and foreigners; but in no case to be considered a normal feature of life and never a fashionable habit to take pride in or to be popularized with gusto. If we can achieve this result, we will have saved society from one of its greatest scourges."

K. M. MUNSHI

stupefying substances when taken in small and moderate doses are without any deleterious effect and you hear people boast 'I have been drinking regularly for so many years and yet look at me; I am physically and morally quite sound, as good as one can desire.'

"Thus it is supposed that a well-to-do Russian's glass of Vodka before

each meal and tumbler of wine with the meal, or a German's larger-beer, or a well-to-do Chinaman's moderate dose of opium, and the smoking of tobacco with them—is done only for pleasure and has no effect whatever on these peoples' consciences.

"It is supposed that if after this customary stupefaction no crime is committed—no theft or murder, but only customary bad and stupid actions then these actions have occurred of themselves and are not evoked by the stupefaction. It is supposed that if these people have not committed offences against the criminal law they have no need to stifle the voice of conscience, and that the life led by people who habitually stupefy themselves is quite a good life, and would be precisely the same if they did not stupefy themselves. It is supposed that the constant use of stupefiers does not in the least darken their consciences."

Cumulative Effect

The effects of this slow poisoning are quite sure though imperceptible and the whole society has to suffer. The cumulative effect of it is seen to be very undesirable. We see that the world today is in a very bad way. Humanity today has as it were stuck fast. It was Tolstoy's opinion that war and the other destructive tendencies of modern western life were due, if not solely, principally to the physical condition of stupefaction induced by wine and tobacco to which the great majority of people reduced themselves. I need not go as far as Tolstoy and blame everything destructive on the absence of prohibition. India had already achieved freedom from this vice in the respectable classes of its society. Why should we want to go back?

Tolstoy who wrote his essay in 1890 said: "Emancipation from this terrible evil will be an epoch in the life of humanity," and that epoch seems to be at hand." His complaint was, as always, of reform beginning among the upper classes only after the lower classes had already been infected.

To us who are bent upon reconstructing modern India on sound social principles it should be an article of faith to eschew the curse of these slow poisons and to make people aware of

PROHIBITION

Recreation Sub-Committee in Bombay

the dangers from their use even in moderate quantities. Or else we shall awake too late. We shall have to confess defeat even as America who after recognizing the evil made an heroic attempt to destroy it and was helpless because the evil had taken deep root. If we do not make a supreme effort now, posterity will curse us for not having acted as a true guide.

That men from the Brahman, Muslim and other communities who used to consider drink as a sign of disreputability try now to defend the use of liquor as perfectly justifiable and proper should be a danger signal which ought to put society on its guard.

—Sanjeevan.

A meeting of the Recreation, Counter-attraction and Social Welfare Sub-Committee of the Provincial Prohibition Board was held recently at Bombay, Mr. G. D. Tapase, Minister for Rehabilitation, Backward Classes and Fisheries presided.

It was decided that the Regional Honorary Prohibition Organizers appointed for co-ordinating Prohibition publicity work in the different regions of the Province should be co-opted as members of the Sub-Committee. The work done by the Committee from May 11, 1948 to September 30, 1949 was also reviewed. It was suggested that the

members of the Committee should visit Sanskar Kendras and make suggestions to shape the activities of different Kendras according to local needs.

Prohibition Prizes for Villages in Bombay

As an inducement for pushing up the programme of Prohibition, the Government of Bombay has decided to award prizes to villages situated in areas in which the habit of drink and illicit distillation prevails on a considerable scale, if they remain entirely free from Prohibition crime for a whole year. These prizes will be in the nature of local amenity.

INDUSTRIES AND LABOUR

They Assist You In Getting Jobs

Employment-seekers have been labouring under misconceptions regarding the technique of their registration with Employment Offices and the principles and details of procedure followed by these offices in submitting them against suitable vacancies. The following article is intended to give them a clear idea of the details of procedure and the precise scope and kind of service they are entitled to from Employment Offices.

The Employment Exchanges of the Ministry of Labour, Government of India, register all applicants who require employment assistance. Applicants should apply for registration to the Employment Exchange Office serving the area in which they are actually residing. They must not register at more than one Employment Exchange Office at the same time.

When a person who requires employment applies to the Employment Exchange either in person or by post, the Employment Exchange prepares an employment index card in respect of him and, if the applicant is present, he is interviewed and his full occupational details are ascertained. Thereafter, the applicant's card is allotted a trade index number which

shows the trade or occupation for which the applicant is suitable and qualified in every respect and for which he shows preference (normally this will be the occupation for which he is best qualified). If the applicant is suitable for some other occupation, this too is entered on his card. If, however, the applicant wishes to be registered for a job for which he does not possess the requisite qualifications, he cannot be registered for that occupation, but he is advised regarding the choice of other occupations for which he possesses the requisite qualifications.

Registration Card And Its Uses

After registration, a Registration Card is issued to the applicant. The Registration Card is an important document which the applicant should preserve with care. It is a proof of his registration with an Employment Exchange Office and it serves as his identity card. This card contains the applicant's Registration Number and Trade Index Number (the Trade Index Number indicates the occupation for which the applicant is registered) without which it would be extremely difficult for the Employment Exchange Office to attend to his enquiries or communications when he makes them

either personally or by post. The applicant is required to return his Registration Card to the Employment Exchange Office as soon as he gets a job either through his own efforts or through the office, or when he, for any reason, ceases to require employment assistance any longer. The Card is a postage-free communication, and all that the applicant has to do is to complete the necessary entries on the Card and drop it in the nearest post box. Instructions regarding the use of the form are given on the form itself for the guidance of applicants.

Renewal Of Registration

The Employment Exchange Organization does not create jobs; it can only put an applicant in touch with an employer with whom a job is available. At the present moment, when employment-seekers far outnumber the available employment opportunities, there are bound to be many cases where some time will elapse before an Employment Exchange Office can put the applicant in touch with a suitable job. It is, therefore, essential for applicants who have to wait some time before a suitable vacancy becomes available, to keep their registrations alive. Every applicant is advised at

enjoying water supply from the Red Hills Lake—are provided with a supply of about 87,600 and 78,000 gallons per month respectively by means of hand pumps fixed to man-holes in the conduit.

Filtration and Chlorination

At the Kilpauk Water Works, there are 17 slow sand filters, 14 of which measure 200 feet by 100 feet and the remaining three 200 feet by 130 feet. The filtering materials of these filters consist at present of six inches of fine sand supported on two inches of coarse sand which rests on another two-inch layer of $\frac{3}{4}$ inch stone which again rests on another two-inch layer of $\frac{3}{4}$ inch stone. Below these are the loose brick collecting cross drains leading to a central longitudinal drain which is sunk under the floor of the filters. The raw water is chlorinated before it enters the filters and then it percolates through the filtering media, runs down the central longitudinal drain and comes out into a rectangular chamber which contains an automatic outlet regulator. The rate of filtration is about eight inches vertical per hour.

The filtrate from all the above filters is led into four underground storage tanks altogether capable of storing 64 million gallons. These tanks are to provide adequate storage to serve as a balance between the rate of filtration at the rate of pumping water to the City. The four filtered water tanks are independent of each other so that each one of them can be isolated for cleaning without interfering with the working of the others. All the filtered water is again chlorinated just before it enters the filtered water tanks with an average dose of one part of chlorine per million parts of water. Chlorination has the effect of killing all harmful bacteria which are still to be found in the filtered water even after filtration.

Pumps and Balancing Tank

From the filtered water tanks, water gravitates to the suction culvert leading to the pumps whence it is pumped into the distribution system through a 48" steel pumping main about half a mile long. A steel circular elevated tank of 104" diameter, 28' high with a capacity of one and half million gallons is connected with the pumping main close to the pumps to act as a balancing tank between the pumps and the distribution system.

Silt removed from the filter bed before the removal of sand for washing



There are three pumping units run by steam and two electrical units at the Kilpauk Pumping Station. The steam pumping plants installed in 1914 comprise three high duty Worthington direct acting pumping engines capable of delivering 12,000 gallons of water per minute against a total head of 80 feet. Four Babcock and Wilcox Boilers are provided to supply steam to these units.

The two electrical units were installed in 1936 to meet the increased quantity of pumping for the growing needs of the City. The electrical units are capable of pumping 20,000 gallons each per minute against a total head of 80 feet.

Distribution System

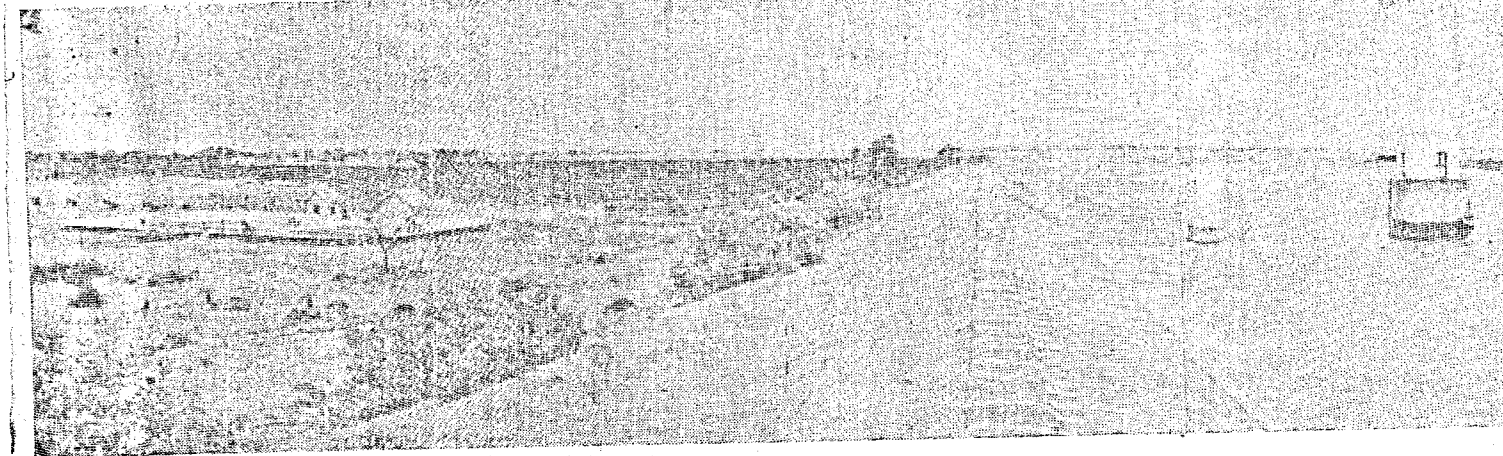
The City distribution system consists of 29.5 miles of trunk mains and sub-mains varying in size from 48" diameter to 9" diameter, nearly 365 miles of distributaries and street mains varying in size from 8 inches to 4 inches and a few lengths of 3 inches and 2½ inches street mains and riders. The four trunk mains which supply the several parts of the City, branch off from the 48-inch steel pumping main which ends at the place known as the Kilpauk Shaft. At this place there are valves fitted on to each of the trunk mains to enable the pressure on the trunk mains being regulated suitably at different parts of the day.

To remedy the defective supply at the tail-ends of the distribution system and in high level areas such as Muthialpet and Mylapore, three automatic electric booster pumps have been installed in 1934 and they are functioning satisfactorily. These booster pumps work from 6-30 a.m. to 10 a.m. and from 4 p.m. to 6 p.m. daily. While these pumps provide a satisfactory supply to the areas for which they are intended, they cause defects in the adjacent areas by the suction effect of the pump. This point has been taken due note of when similar pumps had to be installed for three other defective areas in Triplicane, San Thome and Mandavalli. In these cases the water from the mains is drawn at night time or during the midday by gravity into underground reinforced concrete storage tanks of three lakh gallons capacity each, from which the pumps draw water in the mornings and evenings and supply the areas which they are intended to serve.

There is a full-time Water Analyst at the Kilpauk Filter Beds working under the direct supervision of the Health Officer, who takes samples of water from the filter beds every day and from the distribution system at frequent intervals and conducts a thorough bacteriological and chemical examination of the same. He supervises the chlorinations of the City water-supply and regulates the dose of chlorine to be added to the water to sterilise it properly.

Improvements Under Way

The conduit filter beds, pumping plant and the distribution system were designed and constructed by Mr. J. W. Madley, Special Engineer, between 1911 and 1914, to provide for a supply of 25 gallons per head per day for a population of 660,000 anticipated in 1961. But the population of the City had reached this limit even before 1941. According to the 1941 census the population of Madras City was 777,481. The present population of the City is estimated at about 15 lakhs. In order to



A panoramic view of the Red Hills Lake

provide for the increased requirements of the City, the following improvements to the Water-supply Works have been taken on hand.

(a) *Laying of a Separate Trunk Main to South Madras.*—Due to the Mambalam extension and the various town-planning and house-building schemes in this area, the water-supply to South Madras, especially at the tail-ends of the distribution system is found very defective. To remedy this defect the Corporation, with the sanction of Government, has taken up for execution the work of laying a separate trunk main starting from the 48-inch pumping main at Kilpauk shaft to San Thome area at an estimated cost of Rs. 20-50 lakhs.

(b) *Third Electrical Pumping Unit for the Kilpauk Pumping Station.*—The installation of a third electrical pumping unit with a pumping capacity of 1-20 million gallons per hour has been sanctioned by the Government at an estimated cost of Rs. 1-50 lakhs. The pumping plant has since been supplied by Messrs. Mather and Platt, Limited, Bombay. The plant is being erected at the Kilpauk Pumping Station. This will be brought into use shortly.

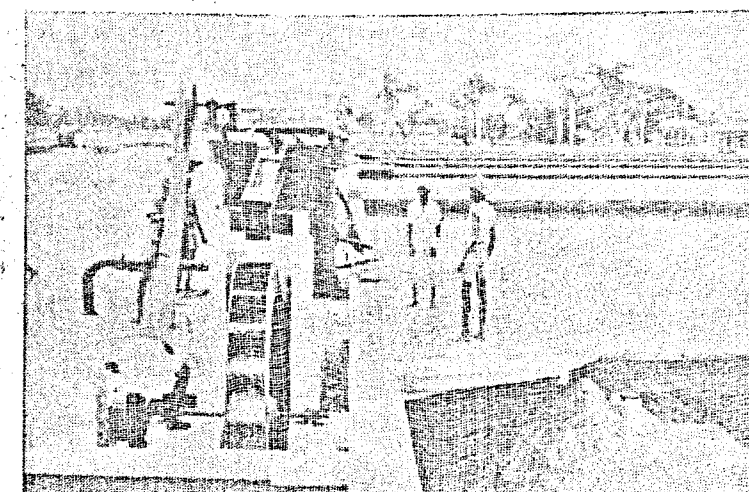
(c) *Duplication of 48-inch Steel Pumping Main from Kilpauk Pumping Station to Shaft.*—The existing 48 inch steel pumping unit laid in 1914 has been serving for the last 35 years. A duplicate pumping main is quite essential to safeguard the interests of the City water-supply against any breakdown in the existing pumping main. An estimate for Rs. 48-15 lakhs for the above work has been sanctioned by the Government and steps are being taken to obtain the required pipes and specials for carrying out the work early.

(d) *Filtration and Purification of City Water-supply.*—Before 1914, Madras did not have any system of filtration for the so-called protected water-supply made at that time. Water used to be conveyed in an open channel from Red Hills to Kilpauk and then let into the distribution pipes without receiving any sort of treatment. The open channel was also subject to serious pollution by persons bathing or throwing all unwanted things into it and by cattle finding their way into it.

It was only in 1914 when the first underground conduit was completed and the Water Works at Kilpauk began to function, that slow sand filtration was adopted to purify the water. These slow sand filters were found defective even from the very start. The effluent gave a bad smell and taste due to evolution of sulphuretted hydrogen in the under-layers of the filters and very poor and unsteady analytical results chemically as well as bacteriologically. The question of improving the quality of the water supplied to the City has been receiving the attention of both the Corporation and the Government since 1916.

After prolonged and varied experiments, the Committee decided that the best method of filtering and purifying the Red Hills water would be by rapid mechanical filters. According to the Committee's recommendation, a preliminary outline of the scheme for installation of rapid mechanical filters at the Kilpauk Water Works was prepared and the approval of the Chief Engineer to Government was obtained in February 1947. Thereupon a detailed estimate for Rs. 77-50 lakhs for the installation of rapid mechanical filters capable of filtering 40 million gallons of water per day was sanctioned by the Corporation.

Sand removed from the filter bed is washed before respreading on the bed



The Lower Bhavani Dam

The Lower Bhavani Dam is one of the large dams now under execution, costing about rupees 10 crores. The total length of the dam is 5½ miles, composed of both a masonry section and an earth dam section. The earth dam section will be about 90 feet high, the highest so far built in Southern India. The masonry dam which will be across the river portion and over the deepest level of foundations is 204 feet, the foundations being 60 feet below the river bed. The canal takes off from the dam to irrigate 207,000 acres of cotton and food crops including also small blocks of paddy in the low areas amounting to 10,000 acres.

Supply will be made to this canal through canal sluices. There will be sluices in the river to pass down the discharge required for lower down irrigation as in the case of Mettur. Provision is also made for generating power at a future date. The reservoir will submerge about 16,000 acres most of which is forest land inhabited by elephants of the Moyar Valley.

Colony Laid Out

A bridge has been built below the Bhavani Dam to connect both sides of the river. About 20 miles of roads have been laid and a colony on very modern lines with a good layout, water supply and sanitation has been laid out and built. About 50 office buildings, 50 bachelors' quarters and about 600 residential quarters including quarters for labourers and the lower grade staff, mechanics, etc., have been built. A post-office has also been built and internal telephone system has also been installed for rapid communication and for ensuring expedition in the progress of works and co-ordination of different sections of the large dam work. Besides these, temporary hutting has been provided for the labourers. About 20,000 labourers are working.

Second Stage of Coffor Dam

Last year, the first stage of the coffer dam was completed and foundations laid in the left flank of the river. In the

present season, the second stage of the coffer dam has been built and work is in progress in the river bed on the right. Considering the fact that excavation of the foundations was started only in June 1949, very good progress has been achieved in spite of the foundations having had to be taken 40 feet deeper into the river bed than originally contemplated. Masonry has been built to a height of 70 feet above the foundation level in the deep sections. About ten furlongs of earth dam out of a length of about five miles have been completed and the rest is in progress. About 3,600 feet of drilling and grouting has been done in the masonry section.

Mechanisation has been adopted but not to the exclusion of manual labour. A variety of machinery, like sheep foot rollers, have been locally manufactured. A large fleet of tramlines, trucks, locomotives and a fleet of Euclid trucks, scrapers and excavators are busy digging up the earth and transporting it to the earth dam. A complete control over the execution of the earth dam section is being maintained with laboratory tests, on the density, moisture and consolidation characteristics to ensure the highest quality of work. The river bed section is in masonry in cement mortar and quite a number of mixers, compressors and air equipment is in use. The baffle blocks and curved section of the spillway overflow and gallery are now in progress on the masonry dam.

An Information Office has been opened in which models of the dam and wall charts display all the salient features of the dam in colours. Every part of the colony is accessible from this point through telephone and the office itself is situated just at the entrance to the dam colony.

It is expected that the dam will be completed and partial storage will be available to irrigate about 10,000 acres of paddy before the end of 1952. Recently Sri M. Bhakthavatsalam, Minister for Public Works, inspected the progress of work at the Bhavani Dam site.

TREE MEANS LIFE

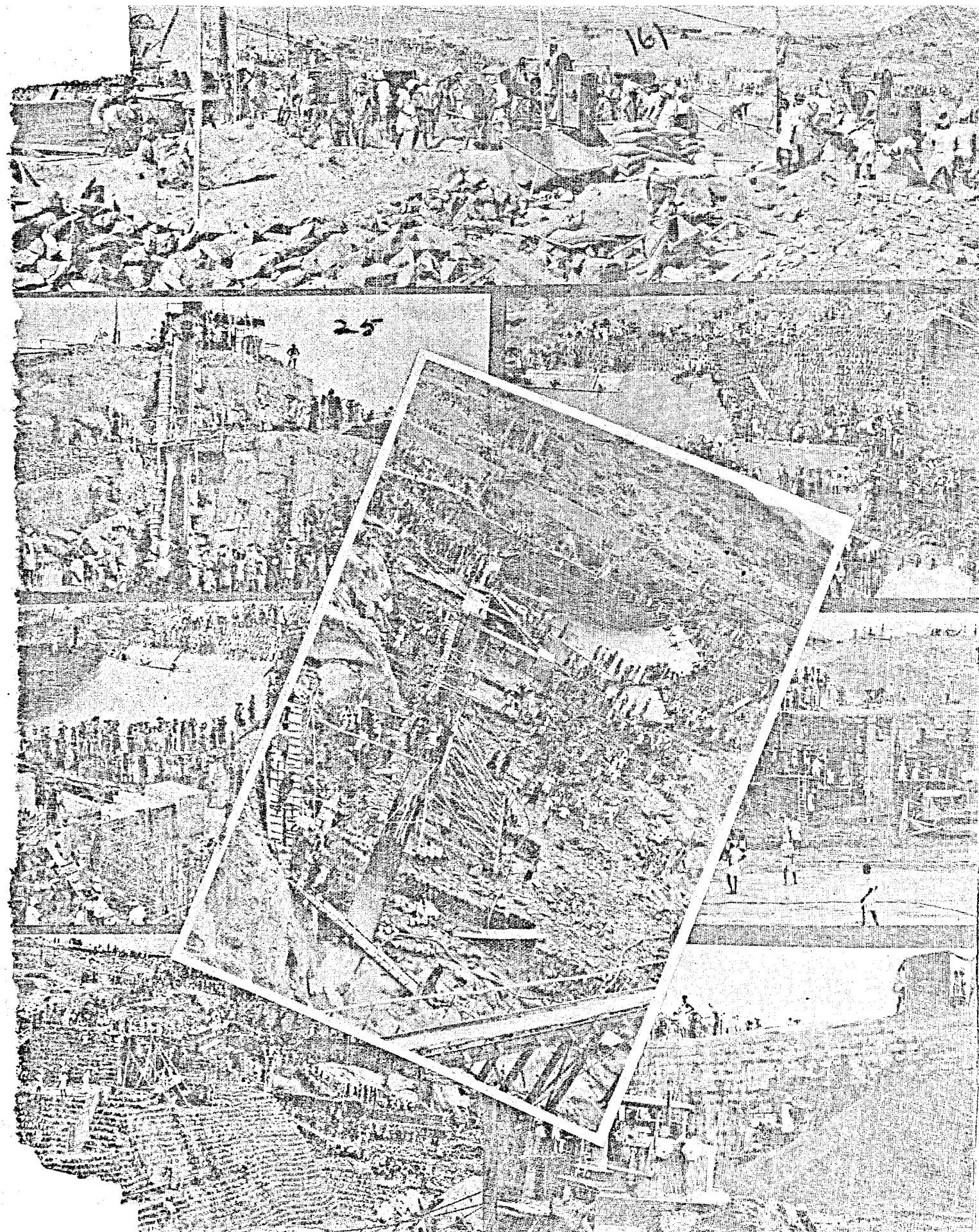
"Trees mean water, water means bread and bread is life."

—Shri K. M. Munshi

Lower Bhavani in Pictures

General views of the masonry dam work in progress at the Lower Bhavani work spot. Central inset shows a finished portion of the spillway.

(See opposite page)



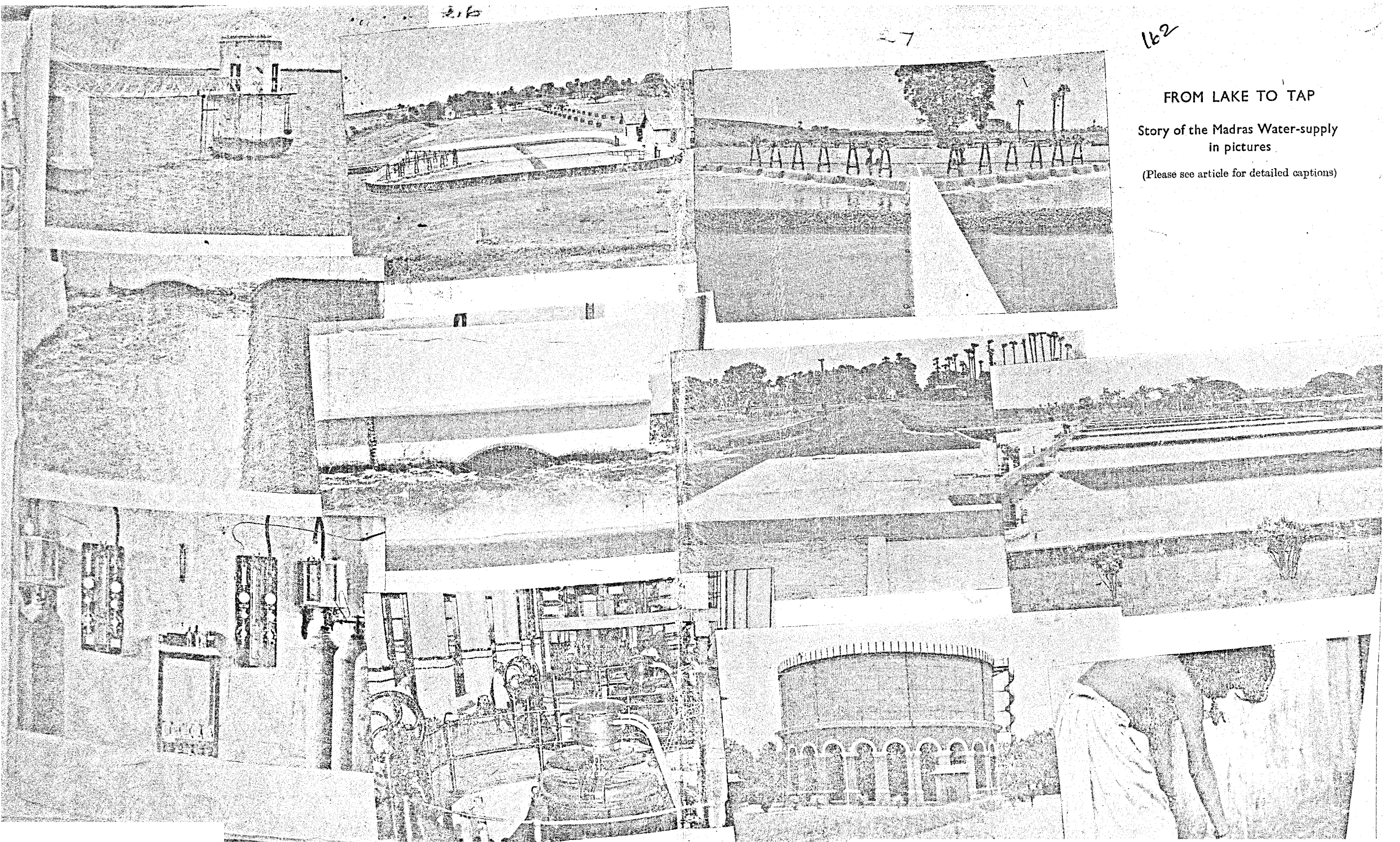
162

27

FROM LAKE TO TAP

Story of the Madras Water-supply
in pictures

(Please see article for detailed captions)



The Ellis Choultry Anicut Scheme

Among the many channels that take off from the river Penniar below Tirukkoyilur anicut in South Arcot district, having direct and indirect ayacuts (ayacuts under tanks fed by these channels), the Alangal channel is a major one which feeds nine tanks with a secured ayacut of 6,452 acres. This channel takes off from Penniar on its left side at nearly 14 miles below Tirukkoyilur anicut. The ryots under this channel resorted to the erection of *korambus* to lead water into the channel and in course of time, the bed of the river became scoured, and the *kalagam* shifted away from the margin with the result the ryots found it difficult in forming the *korambus* periodically and maintaining them which involved heavy cost also.

Consequently, the ryots were constantly petitioning the Government for the construction of a permanent bed regulator across Penniar below the Alangal channel head. The construction of the regulator was engaging the attention of the Public Works Department and the Chief Engineer (Irrigation) who discussed the subject with the interested ryots and local officials in 1945, expressed the opinion that the anicut or bed regulator may be shifted higher up so that a few more channels taking off the river may also be linked up and brought within the scope of the scheme. So the present site of the anicut came to be finally fixed near Ellis Chatram.

Potential Value of Scheme

The scheme will afford assured supply to an existing ayacut of 12,856 acres and second crop can be raised over an extent of 2,340 acres in 26 villages. In addition, nearly 370 acres of dry fields can be brought under wet irrigation. The additional computed food production is 1,865 tons.

The scheme contemplates the provision of an anicut 2,000 feet long, having two head sluices on both its flanks.

Falling shutters 12 feet long and 2 feet high will also be fixed on the anicut—33 numbers on the right side and 25 numbers on the left in order to lower the M.F.L. in front of the river during times of flood. The anicut will also be provided with seven scour vents, 6 feet by 6 feet on the left side, and four vents, 6 feet by 6 feet on the right side, to prevent silting of bed of the river higher up the anicut.

The left side head sluice is designed to irrigate one block of 1,672 acres under the six tanks in the head reach, and an extent of 7,612 acres under Maragadapuram and other lower tanks now fed by the Alangal channel. The right side head sluice will irrigate 2,500 acres, served by Eralur channel, Karadipakkam, Paithambadi and Avianur branch channels.

Better Irrigation Facilities

Enadimangalam and Reddy channels having an ayacut of 776 acres that take off the river some distance up-stream of the anicut site, will be afforded better irrigation facilities due to extra depth of flow in the channels that would be available after the completion of the anicut.

The construction of the anicut sanctioned in 10th December 1948 for Rs. 12.54 lakhs is in progress under a special Assistant Engineer, and the work is expected to be completed in five or six months before the irrigation season of 1950 commences. This is one of the target schemes under the Grow More Food campaign to be completed before 1950 and will be the third anicut across Penniar known as South Pinukini taking off in Mysore, the first one being the Nedungal anicut in Salem district and the second one being 14 miles higher up at Tirukkoyilur.

New Grow More Food Schemes Sanctioned

In pursuance of the food production and Intensive Cultivation drive, the Government have sanctioned various irrigation schemes, the execution of which is to be undertaken immediately. These schemes are estimated to bring in considerable areas of land under cultivation. The details of the schemes are given below.

South Arcot district.—A proposal to provide irrigation facilities to an extent of 351 acres in Ponnantbittu village of Chidambaram taluk by supplying water from the Khan Sahib canal through the Manambadi channel was approved. The scheme involves improvements to, and an extension of, the Manambadi channel at a total estimated cost of about Rs. 65,000. It is expected that the scheme will result in an additional food production of 175 tons of rice.

Tanjore district.—(1) A scheme for extending the Olavayal branch channel of the Grant Anicut canal for irrigating an area of 6,300 acres in Pudukkottai division of Tiruchirappalli district and Pattukkottai taluk of Tanjore

district has been sanctioned. The scheme consists of two parts, the first part relating to a block of 2,300 acres in Pudukkottai area and the second part to another block

Lower Bhavani

The left flank of the lengthy Lower Bhavani Dam as seen from the centre of the dam line on the top of Ganapathi Hill. More scenes of work are in progress; Sri A. R. Venkatachari, Chief Engineer (Irrigation), explains the work done to Sri M. Bakthavatsalam, Minister for Public Works. At extreme bottom left is a section of the earthen dam.

(See opposite page)



of 4,000 acres in Pattukottai taluk with an ultimate yield of 2,500 tons of rice. The execution of the first part of the scheme and the preparation of estimates for the second part are to be taken up simultaneously. The scheme is expected to cost about Rs. 10.41 lakhs.

(2) It is proposed to provide a supplemental source of supply to the Pudumanniar in Sirkali taluk, the ayacut which now suffers for want of timely and adequate supplies. In order to remedy this, it is proposed to give additional supplies direct from the Cauvery to the Palavar, which is one of the two main streams falling into the Pudumanniar, by opening a new sluice from the left bank of the Cauvery just above the head sluice of Mananjeri channel and also excavating a supply channel therefrom to the Palavar. The anticipated additional yield of foodgrains from this scheme which will cost about Rs. 1.61 lakhs and which will help in raising a second crop over 2,000 acres is about 500 tons of rice.

(3) It is also proposed to relieve the existing drainage difficulties besetting the lands of the Kudithangicheri and four other villages of Mannargudi taluk by combining the Kudithangicheri, Sevalkaran, Kilamadapuram and Kailasanathankoil drains into a single drain and diverting the combined drainage into the Korayar below the regulator at mile 75.58, a new drain parallel to Ramapuram drain being excavated for this purpose. The scheme which will involve a cost of little more than 1½ lakhs of rupees will benefit about 1,500 acres and result in an additional yield of about 153 tons of rice.

Tirunelveli district.—Improvements to the Sadayaneri Tank Supply Channel in Tiruchendur taluk of Tirunelveli district have been sanctioned at a cost of about Rs. 50,000. The scheme is expected to prevent annual loss estimated at about 10 lakhs of rupees due to non-cultivation of wet and dry lands on which the flood water stagnates. The scheme is expected to result in an additional production of 429 tons of paddy and 62 tons of millet.

Nellore district.—With a view to enable the draw off of the low supplies in the Tsallacalva in Gudur taluk by the three irrigation channels taking off from above the Kota anicut, the Government have sanctioned a scheme for improvements to the Kota anicut at a cost of about Rs. 70,000. The additional yield of foodgrains expected as a result of the execution of this scheme is estimated at 264 tons of rice per annum.

Krishna district.—Proposals to bring under cultivation a block of 568 acres of waste lands lying between the East Channel Direct, East Channel No. 16 and the Divi Left Flood bank have been sanctioned at a cost of about Rs. 55,000. The scheme is expected to yield about 284 tons of rice.

Guntur district.—It is proposed to form a tank across the Pulikuntaragu in Narasaraopet taluk. The scheme is designed to irrigate 100 acres out of 216 acres of commandable waste and cost about a lakh of rupees. The annual additional yield will be about 50 tons of rice.

Godavari Western Delta.—A proposal to give a supplemental source of supply to the Relangi channel which at present is not getting adequate supplies was also approved. The supplemental supply is to be given from Gostanadi and Vohar Canal through the Mamudurru channel. The

scheme is estimated to cost about Rs. 33,000 and to bring in an additional area of 110 acres under irrigation besides throwing open 1,500 acres for second crop cultivation annually, as a result of which it is expected to yield 380 tons of rice.

South Kanara district.—(1) The Government have sanctioned the improvements necessary to increase the storage capacity of the Herekere tank in Coondapur taluk, South Kanara district, with a view to ensure adequate supply to the existing ayacut in all years and also to a second crop area to the maximum extent possible. The scheme is estimated to cost about Rs. 55,000 and result in an additional production of about 80 tons of rice annually.

(2) The restoration of Ramachira Dam across the Nape channel in Kasaragod taluk of South Kanara district was also approved, for protecting low lying fields of about 110 acres from the influx of salt water during the second crop period. The scheme is expected to cost about Rs. 52,000 and result in an additional production of 28 tons of rice.

“Food Production”

All work relating to “food production” has been transferred to the Commissioner of Food Production *cum* Ex-officio Secretary to Government who forms a branch of the Food and Agriculture Department. All other work relating purely to agriculture is dealt with as usual in the Food and Agriculture Department. The public are informed that they may address their communications in regard to “Food Production” direct to the Commissioner of Food Production *cum* Ex-officio Secretary to Government at the Board of Revenue, Chepauk, Madras.

West Godavari Agency

There were no events of special importance during the year 1947-48. Peaceful condition prevailed in the taluk but for the border question and the evacuee problem.

Polavaram firka in the agency area has been selected for intensive development work. Village survey under the development work was completed and a co-ordinated plan was submitted to Government. An amount of Rs. 4,096 was spent on laying village roads and digging wells for drinking water. The economic condition of the ryots and labourers is satisfactory. But the position of the hill tribes has not improved. They are still adopting their own ways of borrowing monies from sowcars who take from them the produce of their fields.

The river Godavari was in high floods and the minor irrigation and zamindari tanks breached at several places. Public health and medical activities have increased. The total number of patients treated in all medical institutions during the year was 42,769. Epidemics like malaria and other diseases were effectively controlled. The supply of quinine in these areas is adequate. The health staff of the Ramapadasagar Project are taking several precautions to suppress malaria and mosquitoes in this area. On the whole, the work of the health staff in this direction is progressing. No blackwater fever cases were reported during the year. Six patients were given anti-rabic treatment.

Investigations and Improvements

During April 1950, the Government sanctioned the following:—

Visakhapatnam District.—(i) Detailed investigation of the scheme for shifting to a higher point, the head of the Neelanagaram Channel which takes off from the Nagavalli River in Palakonda Taluk, Visakhapatnam District, and of constructing a permanent leading channel to the Neelanagaram Channel to ensure adequate supply of water in the channel in times of low supply in the river. By the execution of the scheme it is expected that an existing ayacut of 1,853 acres in Neelanagaram, Talavaram, Kummari-gunta, Bukkuru and Yerakarayapuram villages of Palakonda Taluk would be benefited and the yield on the lands will increase by 185 tons of rice annually.

(ii) Detailed investigation of the scheme for the construction of an anicut across Addarugedda near Surapadu village in Salur Taluk for providing better irrigation facilities to an existing ayacut of 600 acres and bringing under cultivation 200 acres. The additional annual production of foodgrains expected as a result of the execution of the scheme is estimated at 175 tons of rice.

(iii) Detailed investigation of the scheme for the construction of an anicut across the Sarada River near Maddurti village in Srungavarapukota Taluk for providing better irrigation facilities to an existing ayacut of 1,415 acres, and for bringing newly under cultivation 500 acres. The additional annual production of foodgrains expected as a result of the execution of the scheme is estimated at 350 tons of rice.

Guntur District.—An estimate for Rs. 21,400 for works or Rs. 29,120 inclusive of direct and indirect charges, to carry out certain improvements to the Santhamangalur minor irrigation tank in the district under the control of the Public Works Department. This scheme will facilitate the bringing of an additional area of 100 acres into cultivation. The additional quantity of foodgrains expected annually as a result of the execution of the scheme is approximately 50 tons of rice.

Nellore District.—An estimate for Rs. 30,000 for works or Rs. 39,032 inclusive of direct and indirect charges for restoring the Ragicheruvu tank in Chittalur village, Rapur Taluk, Nellore District. As a result of the execution of the scheme it is expected that 25 acres of land can be brought under irrigation. The additional yield of foodgrains expected is estimated at 12½ tons of rice.

Anantapur District.—Restoration of the Pilliguntlachervu in Kannipalli village, Kalyandrug Taluk, Anantapur District, at an estimated cost of Rs. 1,50,000 for works or Rs. 1,95,660 inclusive of direct and indirect charges. It is expected to irrigate a new ayacut of about 175 acres in 16 out of 30 years and about 125 acres in the remaining 14 years. The average additional gross revenue expected is Rs. 607 which will give a gross return of 0.13 per cent. The average additional food production expected is about 76 tons of rice extra annually.

South Arcot District.—(1) The provision of irrigation facilities to a block of 594 acres in Allur, Budangudi, Sathamangalam and Paradur villages in Chidambaram

Taluk, South Arcot District at an estimated cost of Rs. 56,800 for works or Rs. 73,901 including direct and indirect charges. The scheme will result in an additional food production of 297 tons of rice.

(2) Improvements to Satyamangalam large and small Tanks, in Gingee Taluk, South Arcot District at an estimated cost of Rs. 1,35,000 for works or Rs. 1,77,685 including direct and indirect charges. The scheme will bring under cultivation an additional ayacut of about 280 acres and is expected to yield an additional 100 tons of rice.

Tanjore District.—The provision of irrigation facilities for 1,420 acres at the tail-end of Mulliarin the Tiruturai pundi Taluk of Tanjore District, by pumping, at an estimated cost of Rs. 1,67,200 for works, or Rs. 2,17,540 including direct and indirect charges. The scheme is estimated to yield an additional quantity of 710 tons of rice.

Town-Planning Enquiry Committee

The Government have passed orders on the recommendations made by the Madras Provincial Town-Planning Enquiry Committee, set up in October 1947, to report on the amendments to the Town-Planning Act, with a view to ensure the expeditious execution of Town-Planning Schemes and offer suggestions on subjects such as the methods of rationalizing the levy of betterment contribution, the methods for organizing Town-Planning Departments, the provision of adequate technical staff, the financing of schemes, etc.

One of the recommendations, which the Government have accepted, concerns the provision for housing the industrial workers by local planning authorities. The Government accordingly have informed the local authorities that while framing Town-Planning Schemes, they should bear in mind the need for providing housing for industrial labour, wherever possible. Another recommendation accepted by the Government is that a local planning authority should not only have powers of compulsory acquisition of the required lands in Town-Planning Schemes after sanction but such powers should also be available even before the schemes are actually sanctioned or at any time after the first notification under section 10 or 12 has been made.

The Government, however, consider that the actual acquisition and extent of land to be acquired should be decided with reference to the facts of each case, the funds available with the local bodies, the possibility of the danger of locking up of funds, etc. They consider that such power to acquire land should be exercised only with the sanction of the Government, as usual.

A few other recommendations are under consideration of the Government. The Government have not accepted the other recommendations made by the Committee and have stated the reasons therefor. The question of amending the Town-Planning Act and the rules framed thereunder with reference to the recommendations which have been accepted is under consideration.

Pisciculture in South Malabar

By SRI V. ACHUTHAN NAIR, Assistant Fishery Demonstrator, Palghat.

With a view to step up the production of foodstuffs the Government of Madras have started various schemes; among these the scientific development of fisheries in the inland waters stand second to none. When this demonstration unit started functioning in Palghat in September 1949, many were in the dark about the scientific method of fish culture in tanks and ponds. This unit launched a widespread propaganda campaign to make owners understand the rudiments of pisciculture. A thorough survey of the inland waters, firka by firka, was also carried out.

The existing varieties of fish in these tanks are poor forms such as ophioccephalus and saccobranchus. With a little attention and care, these tanks can be transformed into profitable and ideal fish farms. In the course of twenty-two months, 242 perennial and 28 seasonal tanks were surveyed, covering an area of 167.43 acres, out of which 43.09 acres have so far been stocked with seeds of good species like catla, chanos, labros, etroplus and gourami. Eighty per cent of the waters are suitable for fish culture provided a little care and attention are paid for their preliminary preparations such as dewatering, desilting, elimination of existing varieties of predatory fish, and protection of outlets and inlets.

Encouragement to Fish Farmers

At present almost all the tanks are in a state of disuse due to financial stringency; if the fish farmers are encouraged by grant of loans at nominal interest this will be an impetus for the development of pisciculture this side of Malabar. Steps taken to make available good quality of fish in sufficient quantities in the interior of the country and at fairly cheap rates would induce the poor folk to purchase it and thus ensure a balanced diet.

Wide propaganda and constant approach among the pond owners resulted in 50 pond owners introducing fish culture in their tanks. Consequently, 21,418 fish fingerlings comprising chanos, labros, etroplus and gourami were distributed among them. With a view to introduce and encourage modern methods and techniques of fish culture,

frequent trial nettings were conducted in their tanks and necessary advice and guidance given. Satisfactory results were achieved. Being a new enterprise many hesitate to adopt this on a commercial basis, but the success of a few will work as an eye-opener to the rest of the pond owners.

In order to vindicate the actual methods of pisciculture, this unit is having two tanks under its control. These are maintained according to strict scientific principles and the interested parties are taken to these farms for demonstration purposes. The growth of the fishes in them are observed frequently and all facilities have been provided for its fattening and breeding.

Fishery Potential

One of the important rivers in Malabar, the Bharatha Puzha, was also surveyed with a view to assess its fishery wealth. As food fishes are seldom found in it, proposals have been finalised to release certain quick growing carp seeds to augment the fishery in the long run.

In Palghat Town itself, there is a floating population of about a lakh. Enquiries reveal that 75 per cent of the population prefer a non-vegetarian diet. Almost all the fish markets in Palghat Taluk solely depend upon the import of fish either from Kozhikode or Tirur. The catches in those places are not sufficient even for local consumption and hence the question of regular transport of sea-fish is not possible. In order to overcome this defect there is no alternative but to develop the inland fisheries on a large measure. But astounding potentialities exist for the development of this useful industry in South Malabar. For instance, the Fort Moat at Palghat, which is now choked with water hyacinths and is a harbourage for mosquito-larvae, if converted into an ideal fish farm will enable us to produce quite a few tons of edible fresh water-fish every year for distribution in this taluk. Moreover if certain carps are allowed to breed here, the local demand for such fingerlings can also be met from that source without incurring any additional expenditure.

Using the net in the fish farm

The Rudravaram Colony

The Rudravaram Land Colonisation Co-operative Society for ex-servicemen is one of such ten colonies. It was started on 23rd November 1946. The colony is situated about 6 miles away from Kurnool on the road from Kurnool to Atmakur. It comprises an area of 493.64 acres. Of this, 382.49 is wet and the remaining dry. So far 377 acres have been reclaimed. The reclaimed lands are all under cultivation, the chief crops raised being paddy, cholan, cumbu and groundnut. The lands are partly irrigable from the Gargeyapuram tank and partly by lift irrigation from the Kurnool-Cuddapah Canal. As the area was originally a lagoon, there are some drainage problems to be solved. The society is tackling these problems with the help of the Public Works Department. The lands comprised in the colony have not yet been alienated in favour of the society.

Seventy-two colonists have settled in the colony. The proposal is to give each colonist an economic holding of 5 acres wet and 1½ acres dry land. As all the lands are not now available, the colonists have for the present been given 1 acre wet and 2.50 acres dry each.

The State Government have sanctioned Rs. 70,000 towards the formation of the colony for the construction of houses, drinking water wells, provision of irrigation and drainage facilities and erection of pumping sets, reclamation of lands, survey, etc. Seventy-two houses at a cost of Rs. 600 each have been constructed. One drinking water well has been sunk and another will be completed soon. Agricultural implements and a cart have been purchased. Reclamation and provision of irrigation and drainage facilities are being attended to.

The Post-War Services Reconstruction Fund Committee has sanctioned Rs. 34,510 as free grant and Rs. 22,750 as interest-free loans for 70 out of the 72 ex-servicemen for the following purposes:—

	Grant. RS.	Loan. RS.
Share Capital (Rs. 250 free grant and Rs. 200 loan per colonist).	17,500	14,000

	Grant. RS.	Loan. RS.
Bulls (Rs. 250 each)	8,750	8,750
Implements (Rs. 50 each)	3,500	..
Manures (Rs. 40 each)	2,800	..
Seeds (Rs. 28 each)	1,960	..
Total	34,510	22,750

So far 68 colonists have been provided with bulls and 70 colonists with implements, seeds and manures. Arrangements have also been made for the starting of poultry-farming in this colony to augment the income of the colonists. Now that the colonists have settled in the houses built for them, it is expected that poultry-farming will develop rapidly.

Recently the Chief Minister of Madras, Sri P. S. Kumaraswami Raja, performed the pleasant ceremony of opening the tenements in Rudravaram Land Colony in Kurnool District. Sri B. Gopala Reddi, Finance Minister, also attended the function. The Joint Registrar of Co-operative Societies (Resettlement), Madras, the Collector of the District, the Deputy Registrar of Co-operative Societies, Kurnool, and other important officials and non-officials of the locality were present on the occasion besides a large number of ryots of the neighbouring villages.

Declaring open the houses, the Chief Minister exhorted the colonists to evince keen interest in the development of the colony and assured them that Government would afford all possible help to them. He congratulated them on the fact that while in other colonies, ex-servicemen were provided with huts, they were given pucca houses in this colony. The Finance Minister appealed to the colonists to take full advantage of all help given to them, work hard, raise food crops and improve their economic and social conditions.

Stocking the fish farm with fingerlings

Distribution through District Co-operatives

The Conference of Representatives of District Co-operative Wholesale Stores convened recently resolved to work the scheme of distribution of chemical manures and iron and steel through the agency of central co-operative stores, marketing societies, agricultural improvement societies and multipurpose societies. The Conference was attended by over 100 representatives of central stores and primary stores societies and it was presided over by Sri K. Chandramouli, Minister for Co-operation and Local Administration. Sri R. M. Sundaram, Secretary, Development Department and Sri B. M. Lakshminpathy, Joint Director of Agriculture, were present at the conference.

Welcoming the delegates, Sri J. C. Ryan, Registrar of Co-operative Societies, said that the Agricultural Department had agreed that the distribution of chemical manures and agricultural implements should be the function of co-operative societies and hoped that the co-operators who had been repeatedly asking for this function to be entrusted to them would rise to the occasion and make the working of every co-operative society in this respect also successful. Sri Ryan said that before the end of June, the co-operative societies should take over the stocks held by the Agricultural Department and that after that date all fresh stocks would be distributed by the co-operative societies themselves. As regards the existing stocks with the Agricultural Department it had been agreed that co-operatives should take over 50 per cent of the stocks, the balance to be left to tender firms and that both the societies and the firms having taken over the entire stocks of the same price, should sell them with a margin of Rupees 15 per ton. About 10,000 tons of chemical manures were expected to be taken over by societies in this way and the total quantity of fresh arrivals to be handled by them was expected to be about 50,000 tons.

As regards agricultural implements, not only the fabricated materials, but also others would be distributed through the co-operative societies. One important matter remaining to be decided was whether the co-operatives were to get the iron and steel from the producers direct or from registered stockists. One object of the co-operative

movement was the elimination of middlemen and if co-operative societies were to receive their stocks directly from the producers, they could sell iron and steel to the ryots cheaper by at least Rs. 5 a ton.

Encouraging Co-operatives

Addressing the Conference, Sri K. Chandramouli, Minister for Co-operation and Local Administration, said it was the policy of Government to encourage co-operative institutions and see as far as possible that procurement and distribution of controlled commodities were made through them alone. However much they might intend to eliminate all middlemen, the poor merchant who was exclusively dependent on his profession should not be altogether deprived of his means. The Minister assured the representatives that Government were trying their best to give them the utmost co-operation and help by financing them and by handing over to them the distribution of controlled commodities and in all possible ways.

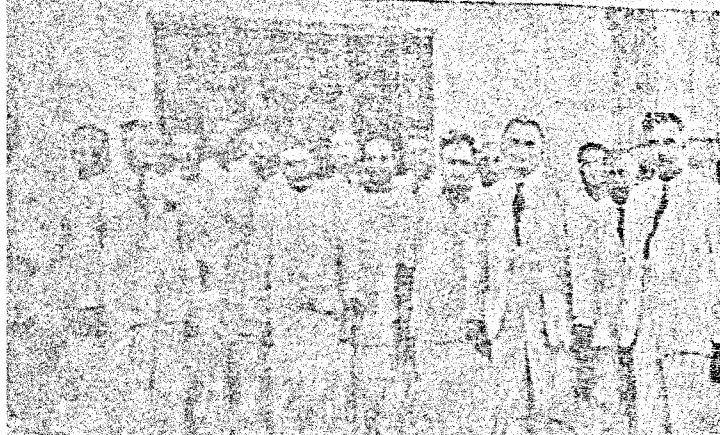
Referring to the taking over of stocks with the Agricultural Department, Sri Chandramouli pointed out that somehow or other the articles would have to be disposed of, but Government would see that no hardship or inconvenience was caused to co-operative institutions. In England, he said all essential requirements of the people were distributed through co-operative organisations, but no luxury articles.

Resolutions Adopted

The Conference resolved to work the scheme of distribution of chemical manures and iron and steel through the agency of central co-operative stores, marketing societies, agricultural improvement societies and multipurpose societies. The co-operative central stores will be the wholesale agent in each district and will procure the stock and arrange for distribution through the primary units. It was also decided to take over 50 per cent of the existing stock of chemical manures from the Agricultural Department and to arrange for their sale—the other 50 per cent being left to tender firms. The Conference was of the opinion that the existing stocks should be sold first and fresh releases should not be made until the existing stocks are cleared. On the question of margin to be allowed, it was considered that the present margin of Rs. 15 per ton was inadequate and the Conference recommended that a margin of at least Rs. 17-8-0 per ton should be allowed. It was agreed that the sale price of the manures should be fixed by the Deputy Registrars in the respective centres in consultation with the wholesale stores and other agencies taking into account the transport, handling and other charges.

Another resolution related to extending to a further period the concession on sale of phosphatic manures at subsidized rates. By another resolution the Conference decided to take over the distribution of iron and steel also through similar co-operative agencies, arrangements for distribution to be the same as for the chemical manures.

Sri K. Chandramouli, Minister for Co-operation, presided over the conference convened to discuss distribution of iron, steel and manures through co-operative societies.



New Trends in the Co-operative Movement

By SRI S. G. APPA RAO NAYUDU, Assistant Secretary to Government, Development Department.

Though the co-operative movement in India is now of nearly 45 years, nowhere in its history had the movement undergone such changes as during the seven or eight years after the commencement of the second world war. During this period while the rise in the prices of agricultural produce reduced the importance of credit in the agriculturist's life, it had also brought in its wake the need for organizations to ensure to him the regular supply of the various necessities of life and their production within reasonable costs. This was the greatest contribution of the war to the co-operative movement.

As black-marketing and profiteering were being extensively practised by private dealers, distribution of essential supplies like foodstuffs, mill cloth, seed, agricultural implements and other requisites of agricultural producers came to be entrusted by Government more and more to co-operative societies. This policy, which was adopted by Government not merely on grounds of expediency but as an act of confidence and as a definite policy of economic development, served to give a great impetus to the movement.

Foremost among the co-operative activities which had reached phenomenal development as a result of these conditions may be said to be House Construction societies, Joint Farming societies, Societies for Rehabilitation of ex-toddy tappers and provision of alternative employment for them and lastly Multi-purpose societies.

Housing Societies

A good standard of housing accommodation is as essential to civilised life as food and clothing. During the post-war era the problem of housing accommodation has become a major problem not only in countries which suffered devastation during the war but also in other countries due to causes incidental to the war. In India there was a large increase in the population and new buildings for residence have not kept pace with the growth of population. On the other hand, there was an almost complete stoppage of building operations during the war period and after. There was a boom in the prices of house-sites, building costs rose and materials were difficult to get for private individuals to construct houses with their own resources.

It is under these circumstances that housing co-operatives have come into the field. But the traditional form of building society which provides only long-term loans to its members, leaving the construction work to be carried out by them has been found to be inadequate to meet the present needs. During normal times, when housing shortage was not so acute and building materials and labour were available in plenty, members were content to obtain a loan and take up construction themselves. But the present situation calls for help in a number of directions other than the mere grant of loans.

Construction Work Undertaken

It is to meet these needs that the new type of the house construction society has been designed. It not only

provides finance but also acquires building sites, constructs houses and lets them out to members on the hire-purchase system, thereby relieving them of the several burdens associated with the construction of houses. There are now in Madras 270 housing societies of various types. Whatever may be the type of society, co-operative housing provides members of the lower income groups who cannot purchase a house of their own outright, with the benefits of deferred payment for a house of their own, the advantages of bulk purchase of materials on the basis of self-help also saving them the profits appropriated by middlemen.

In rural areas, however, the problem has not yet been tackled on any systematic basis. The Madras Government have now made a beginning and have provided a sum of Rs. 20 lakhs for loans to rural housing societies in the current year. But the problem is not easy of solution. The present building costs are too much for the villager. But if locally available material can be used and the villager and his family are prepared to contribute their labour (at least in the off-season when he has little agricultural work to do) we are nearer to the solution of the problem. Above all, for rural housing to be successful, the State should provide in the rural areas besides houses such amenities, as good roads, water supply and drainage, improved sanitation, in fact all the amenities which go to create better living conditions and recreate life in villages.

Co-operative Farming Societies

A second type of society which has come into prominence of late is co-operative farming. Though India has been essentially an agricultural country for ages past, we have not yet fully developed the resources necessary for increased production. The Indian cultivator is still beset with a number of difficulties in the matter of procurement of improved seed, getting timely and adequate water supply, protection of crops from ravages of pests and diseases.

As part of prohibition ameliorative activities, a rural sports tournament was conducted recently at Sivaganga. Picture shows tug-of-war in progress. The Uruli village team won.



Our cultivators as a class are too poor individually to undertake most of these improvements. As a consequence, there has always been shortage of food supplies and to make up the shortage before the war we were importing foodgrains from abroad. The cessation of foreign imports from Burma and other East Asiatic countries during the war, the increase of population and the anti-social activities of black-marketeers made the position still worse.

The Grow More Food campaign started by Government for encouragement of production of more foodstuffs had had as its objects not only the intensive cultivation of existing lands through better methods but also its extension by bringing under the plough more and more of cultivable waste land. But improved methods of farming will be possible only when holdings are of sufficiently large size. To achieve this object, it is necessary that lands of small-holders should be pooled for joint farming. Of all the types of large-scale cultivation suggested in this connection, joint farming on a co-operative basis is found to be the best suited to our conditions.

Though in India farmers have been known to co-operate among themselves in respect of certain farming operations such as harvesting of crops, use of implements, cattle, well, irrigation or crop protection, etc., co-operative farming in the sense of joint cultivation of land, is a recent idea. There are different forms of co-operative farming. Of all these it is the tenant farming type that offers possibilities of success in Madras. Land colonisation societies started in Madras are working on these principles. The society holds the land on ryotwari tenure and is responsible for the assessment of water cess due to Government as well as other taxes and rates. The land is divided into small holdings of about five to ten acres each and allotted for cultivation to members who have occupancy right in it as long as cultivation is done in accordance with the conditions in the bylaws and other instructions of the society. The whole area is cultivated in accordance with a plan laid down by the society but the manner in which it is carried out is left to the discretion of the individual cultivator.

Many Concessions Granted

The society undertakes to supply on credit, seed, manure, cattle and costly agricultural implements and even arranges

entertainment also formed part of the Sivaganga tournament, and included a "Mandi" performance by students of the A.V. School, Sattur, who sang "Gandhi's Motto" and the story of Petra Kattabommu.

for the marketing of the tenant's produce. But it is open to each member to avail himself of these facilities or not. The State Government have sanctioned a number of concessions to these societies in the shape of free grants and interest-free loans. Colonists are also encouraged to take to suitable subsidiary occupations such as sheep-rearing, bee-keeping, mat and handloom weaving in order to supplement their income.

These land colonies have been formed mainly with Government lands assigned to societies. There are twenty-six colonies of this type for civilian personnel and 10 more for ex-army personnel. Quite recently, a few societies were organised with land contributed by private members who joined the society, in Tiruchirappalli, Chingleput, Guntur and Visakhapatnam districts. There are also possibilities for the ordinary rural societies to undertake collective farming as part of their multipurpose activities.

Rehabilitation of Ex-tappers

A third type of societies which have come into prominence in the post-war era are those developed as a consequence of the measures introduced by the State Government for the amelioration of ex-tappers with the enforcement of prohibition. The Congress had adopted prohibition as a reform of first-rate national importance and we all know that Madras was the first State to introduce total prohibition—in October 1948. The enforcement of Prohibition involved in its wake measures for the rehabilitation of the ex-tappers and ex-addicts particularly for finding alternative employment for ex-tappers and also for the vocational betterment of ex-addicts. Palmyrah jaggery manufacturing societies, land colonisation societies, milk supply societies, field labour societies and cottage industrial were organised for this purpose.

Of all these, jaggery manufacturing societies proved to be most popular because they handle an industry with which toddy tappers were already familiar and consequently these societies absorbed the greater part of the unemployed ex-tappers. The Government provided the facilities necessary for the working of these jaggery societies by permitting the tapping of sweet juice from palmyrah and also from coconut, date trees and sago plant in some districts. There are now 1,800 jaggery manufacturing societies with a membership of over one lakh. These figures indicate that over 75 per cent of toddy tappers thrown out of work on account of prohibition have so far been provided with employment in jaggery societies.

One hundred and thirty milk supply societies and unions were also formed under the amelioration schemes and these absorbed 5,000 ex-tappers, ex-addicts and others. There were also on 30th June 1949, four land colonisation societies, thirty seven cottage industries societies, and nineteen other types formed for the benefit of ex-tappers alone. The Government have provided these societies with subsidies and staff wherever necessary.

Multipurpose Society

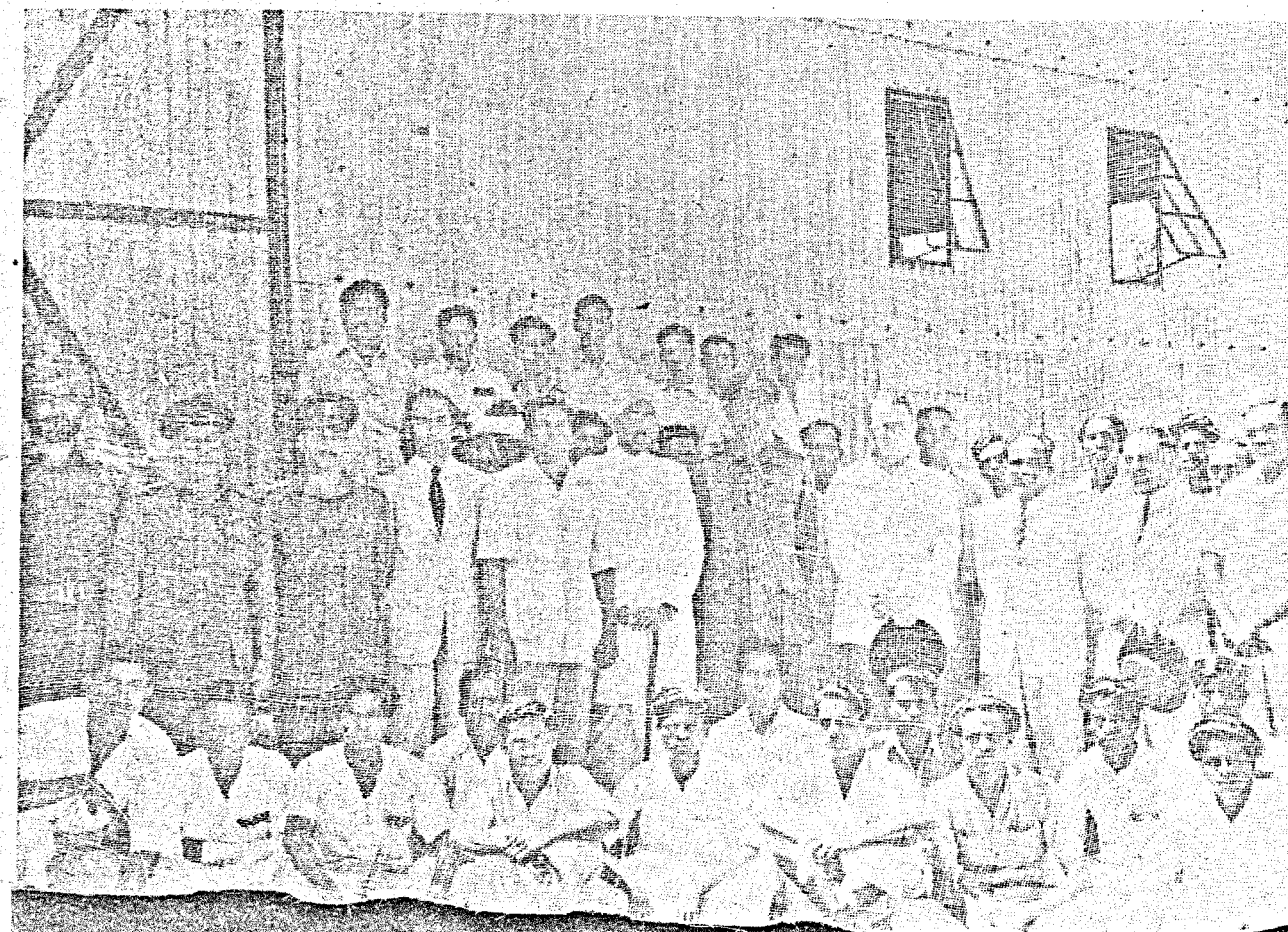
Yet another new type of organisation is what has come to be known as multipurpose society. Though the move for broadening the functions of the primary society to embrace the entire life of the cultivator was gathering force even before the war, it gained practical strength and motive power during the war period. It was during this

period that the agriculturist got increased money-income, had therefore little need for credit and felt a pressing necessity for an organisation to ensure an unfailing and sufficient supply of the necessities of life, supplies essential not only for production and distribution but his every day life. Co-operators in India and outside who have taken stock of the work of rural co-operative societies have come to the view that cheap credit alone does not solve the problem of the villager.

The idea is gaining ground every day that a farmer should be helped on all fronts and that a single organisation should be made to serve not only his credit needs but also to meet a multiplicity of other wants which affect his daily life and business. Under this scheme every rural society should undertake to provide its members agricultural requirements such as seed, manure and implements, raw materials for cottage industries, supply his domestic necessities of life, act as agent for the sale of agricultural produce, provide improved livestock, godowns for storing his produce and even undertake social activities like health, sanitation and education.

It is not expected that every society should immediately after registration or re-organisation take up all these items of work. They should take them up gradually as experience and strength is gained. The Madras Government have recently sanctioned a scheme for reorganisation of rural societies on these lines. About 5,500 rural societies have so far been reorganised for undertaking multipurpose activities.

General A. A. Rudra recently visited the Coimbatore District Co-operative Motor Transport Society for Ex-servicemen. He inspected the vehicles, saw the working of the society and distributed prizes to the drivers and cleaners who rendered the best service during the year.



It will be seen that every one of these new co-operatives was designed to deal with fresh problems. In the case of housing co-operatives, the problem was not only one of finance but non-availability of house-sites and procurement of building materials. In the case of co-operatives for land farming, the problem was of growing more food from land not only by using improved methods and appliances but also by extending cultivation to new lands. In the case of societies for rehabilitation of ex-tappers, the problem was of finding alternative employment for men affected by Prohibition. In the case of multi-purpose societies, the problem related to the diversification of the functions of the primary society and of shifting the emphasis from the credit aspect to its productive and distributive functions and an exploration of its multi-purpose potentialities.

Important as these problems are, they are in the main problems of expediency, and are very largely the product of abnormal conditions engendered by the war and the post-war conditions. Some of these conditions have, however, become a permanent feature of our economic life. At this stage, it is pertinent to ask: "to what extent the progress achieved will remain permanent when things revert to normality?" This will depend very much not only upon the innate strength which the institutions have gained during these years of favourable incubation but also to a greater degree upon the earnest efforts of co-operators to conserve it in the years to come.

Fight the Enemies of the People!

Chief Minister's Call to Citizens

Tonight June 11, 1950 I propose to give you an idea of the nature of the activities of certain irresponsible individuals—one would even be justified in characterising them as insane—here and there in our State. Perhaps they are misguided and perhaps they will realise their mistake one day and reform themselves, but all the same, I must say that, for a long time now, these elements have been almost fanatically pursuing the path of violence. In voicing my feelings in this matter, I am sure I am only reflecting what every rational citizen of this country must have been feeling about their activities, at least of every citizen who has the interest of the people and the nation at heart.

For almost a period of two years, if not more, these anti-social elements have been adopting an attitude practically of open hostility to the Government. They believe almost fanatically in the policy of violence—I should say extreme violence. What Mahatma Gandhi had taught us for scores of years has hardly left marks on them; while the Father of the Nation believed in the principle of non-violence and ahimsa, to the extent of regarding even a harsh word as something to be eschewed, let it should cause mental agony to some individual, these rabid elements regard murders and other heinous crimes as something casual and incidental to what they would like to achieve. They do not seem to have even the elementary human emotions and feelings. It is just a common thing for them to remove a fish-plate; what results is of no consideration to them. They are not there to see persons dying in the greatest agony, persons crippled or families shattered; they are not the persons to rush to help the injured. They are not affected to the slightest degree by the sad scenes witnessed soon after the terrible disasters which follow their deeds.

Shocking List of Black Deeds

It is needless for me to go through the long and painful series of some of these black deeds. The number of such deeds is itself shockingly large, but each item makes even more gruesome reading. I can understand the pangs of horror that are likely to be revived in some of you by references to particular incidents. But it is as well that you and I and the general public, know and remember, from time to time, the nature of the elements that threaten our very existence and peaceful life.

Several village officers and supporters of the Government were murdered, especially in Krishna and the Ceded Districts in 1948 and 1949; most of them were shot but some were speared, some were hacked to pieces, and in one case, they were brutal enough to commit the murder by stoning the person to death. A Karnam was killed in Krishna District, but even more tragic was the killing of his son. Over 200 of these elements carried out a planned attack on Velivolu village and three persons were killed. A series of murders have taken place in Krishna and Ceded Districts also in the last few months. Especially, it will take us a very long time to forget the mean

and dastardly attack on the borders of Krishna District in December last when five women were murdered, including an aged lady of 75 and another in an advanced stage of pregnancy. These elements have also taken away many innocent lives; they have not spared sometimes near relations who merely begged them for mercy.

Incidents of arson, loot and dacoity have been even more frequent. From villages of Nuzvid in Krishna District, these elements took away on one occasion cash and jewels worth nearly a lakh and a half rupees and in March last, on a subsequent occasion, they looted property worth Rs. 60,000. Acid bulbs, country bombs, sticks, knives, bows and arrows, in fact, anything comes handy for them. Even after being lodged in prisons they are not quiet and they try to utilise anything that they can get hold of—chairs, tables, pieces of firewood—as weapons of offence. They destroy property just for the sake of destruction and without any special object, almost as if they were mad.

Mean Tactics of Sabotage

Sabotage is one of the important items in their programme. Sabotage is, perhaps, one of the meanest tactics that can be indulged in by anybody; but all the same, it has an appeal for these elements, as it helps them to do dirty things secretly and derive what I should call savage satisfaction in seeing the results of the damage occasionally caused by such acts. Persons who are unaffected by the sight of blood and agony, who are not moved by appeals for mercy, can hardly be expected to be concerned over the losses of innocent lives which results from such acts. We have had several occasions in which trains have met with a tragic end. Fortunately, in our State there was only one incident and the loss of life was small. On another occasion, thanks to Providence, a goods train shared the fate sparing an important Express train which should otherwise have met with a severe accident. But even in the case of the ill-fated Calcutta Mail, a few lives, however, small in number, were lost, and the loss of innocent human lives, for no fault of theirs, is a matter over which you and I must ponder.

Thus, the policy of these subversive elements is not merely anti-social, but is also anti-national. Precious items of national wealth, like the railways and vital installations, have always been their target of attack. They seem to care little for the needs of their fellowmen or for their country. Their fanatic faith goads them to pursue their vile path. They care little if essential services, or for that matter, public health services or even education is affected. They care little if production in any of our vital factories comes to an end. They care even less when vital and costly machinery is damaged by their acts of vandalism. Their object is merely to create famine conditions by paralysing all communications in order to bring about general chaos and a breakdown of the administration which should help a mass uprising.

Firm and Determined Action Taken

I have dwelt rather briefly on some of the glaring instances of the atrocities committed by this lot. My object is certainly not to cause uneasiness in your minds. On the other hand, I would show how we have dealt with these elements firmly and with determination. We have dealt with them not merely with the confidence that we had the solid support of the people, but actually with their real support and active assistance. It is the paramount duty of any Government to ensure the security of the people and to prevent the normal life of the community from being upset or disturbed by such tactics as are employed by these elements. Our esteemed Prime Minister had on one occasion stated that 'No Government and no social life would be possible if these methods were tolerated'. I would like to add that even our hard-won independence would have been jeopardised if we had not dealt with them with a stern hand.

At the same time, I would like to point out how, for a long time, we had acted with considerable restraint and patience. With the attainment of independence, we allowed unrestricted freedom of speech and association, but the occasion was utilised by these elements to carry on their own anti-social, anti-national and disruptive activities. Several attempts were made here and there to incite people to active revolt, and fortunately all these attempts failed on account of the stern measures adopted by Government and by the revision of public opinion against them. When the strong arm of the law was extended to control them and their organisations, they tried to adopt secret methods and worked through organisations whose ostensible object was one thing while their real object was something intended to encourage anti-social activities.

It is only when we found that these elements are not amenable to be controlled under the ordinary law that we were compelled, with the full support of the Legislature, to resort to special laws in dealing with the menace. Even then we restricted the interference with ordinary civil liberty to the barest minimum that would be necessary to ensure peace and security to the people.

Vigilance Intensified

When some of these individuals evaded even these special laws and continued to operate from underground and caused extensive damage, we were naturally compelled to intensify our vigilance, increase our police forces in order to comb out the affected areas and unearth the spots of evil. But here we found ourselves face to face with persons who were prepared to go to the very extreme in adopting desperate means to fight the authorities. The result has been that on several occasions when these dangerous elements were located after a great deal of patience and trouble, they tried to attack the police parties with whatever things they can command, and in the Ceded Districts especially with firearms. In some instances, our police have been compelled to resort to the use of firearms in sheer self-defence, but their use has been restricted to the very minimum necessary for bringing these elements under check.

In addition, we have taken swift and stern action in other spheres also. We have not hesitated in protecting the railway track with a view to ensure the safety of

A Vital Duty

Sri Jairamdas Daulatram, Dehradun Forest College, in a message to the Convocation said: "I am not unaware how arduous and exacting your life in forests must be, but you will always have the satisfaction of performing a duty of vital importance towards the conservation of national forest resources and their utilization to meet the ever increasing demands of industry and the overall daily need of the common man, enrich our national heritage and maintain the best traditions of the forest service of Free India."

passengers. Many instances of attempts at tampering with railway track have been noticed in our State, but fortunately practically all such cases were discovered by our patrols in time. In a recent case, both the railway administration and the Government gave a handsome reward to a villager for giving prompt information about the discovery of damage to the railway track. It would thus be amply clear that the Government are always ready to take all possible steps to ensure not merely personal safety but communal safety and peaceful living.

Building up Public Resistance

As I mentioned earlier, it is not my object here to cause any concern in your minds by having referred to the various deeds of horror committed by these elements. My sole object in addressing you tonight is to draw your attention to this evil which is trying to flare up every now and then, at some place or other, in the State. The Government would, no doubt, do their best to nip it in the bud at whatever place it may try to raise its head, but it is up to you and me as members of the public to build up a general public resistance in this connection. If the public are made aware of the tactics adopted by these elements, they would be able to tackle this problem by their own efforts. I am not for a moment suggesting that the public have not realised the seriousness of this problem or have been slow to co-operate with the authorities. On the other hand, there is ample evidence to show that the public have expressed their open disapproval and abhorrence of such violent tactics and the bloodstained path which these elements have chosen to take. One has but to tour in Krishna district to find out how courageous and determined the public are to fight this menace.

Only a few days ago, a village committee stood up boldly and fought at considerable handicap against these elements. It was unfortunate that on this occasion some persons were killed, but once the people develop such grim determination to fight this evil, these anti-social elements can hardly find any room or scope to operate. Many instances have come to our notice in the past where villagers have promptly banded over, sometimes after a struggle—and even a violent struggle—persons who have indulged in such tactics. Undaunted by the threats

of their opponents, they have furnished valuable information which has led to the arrest of such important criminals.

Preserving Our Freedom

What I am now anxious to impress on you is that continued vigilance has to be exercised in every sphere against possible incursions or inroads by such anti-social elements, often by subtle methods. In particular, these elements are inclined to take advantage of every situation to achieve their object. They do not spare even the students and they try to corrupt them with their ideas and utilise them to their own ends, but their most favourite fields of operation are, as you know, amongst industrial workers and agricultural ryots.

I wish now to conclude with a warning and an appeal. In my capacity as Chief Minister, I wish to re-affirm that

these sporadic agitations by anti-social elements will be put down with a stern hand with all the resources at the command of the Government. Your Government which is wedded to Democracy will always be prepared to allow propaganda in furtherance of any policy, but it has to be by peaceful and constitutional means. You and I have fought under the leadership of Mahatma Gandhi for freedom of speech and for other civil liberties for years, but our conception of civil liberty is not one that would permit methods of coercion and terrorism practised against the general community. I appeal to you as a citizen of Free India, that it is as much the duty of the public as that of the Government, to see that our hard-won and cherished ideas and conceptions and institutions are maintained intact and that you should strive to protect them from being assailed by such anti-social and violent elements.

(By courtesy, A.I.R., Madras.)

Committee To Consider The Madras Children Bill

The Government have constituted a Committee consisting of the following persons to consider the provisions of the Madras Children Bill, 1950:—

- (1) The Hon'ble Sri K. Madhava Menon, Minister for Education (Chairman).
- (2) Dr. A. Lakshmanaswami Mudaliyar.
- (3) The Director of Public Instruction.
- (4) Srimathi O. C. Srinivasan, Central Inspectress of Schools (Secretary).
- (5) Sri C. Annaswami Mudaliyar, Headmaster of Certified School, Madras State.
- (6) Sri D. V. Kulkarni, Chief Inspector of Certified Schools, Bombay.
- (7) Rev. Father Adisayam, Vice-Principal, Loyola College, Madras.
- (8) Miss V. Appaswami, Headmistress, Vidyodaya High School, Tyagarayanagar, Madras.
- (9) Dr. Miss G. R. Banerjee, Tata Institute of Social Sciences, Bombay.
- (10) Sri R. Suryanarayana Rao, M.L.C.
- (11) Sri R. R. Dalavai, Honorary Secretary, Magistrates' Association of South India.

The following will be the terms of reference to the Committee:—

- (1) To examine the provisions of the Madras Children Bill, 1950;
- (2) To examine all proposals so far received by the Government for the amendment of the existing Madras Children Act, 1920, and amendments to the new Bill so far received by Government; and
- (3) To consider any amendments and suggestions that may be received by it from persons to whom copies of the new Children Bill have been sent by the Government.

It may be recalled in this connection that the Madras Children Bill which seeks to replace the existing Madras Children Act, 1920, was published recently for public information. The provisions of the Bill are designed to implement and bring into practice a radically new concept of the treatment, care and training of delinquent, neglected or destitute children.

The Bill was considered by the Provincial Advisory Board of Education before its publication and the Board while expressing general agreement with the terms of the Bill has suggested the constitution of a Committee to consider in detail the provisions of the Bill. The Government accepting the suggestion of the Provincial Advisory Board of Education, have appointed the Committee cited above.

Counterfeit Currency Note Confidence Trick Cases

A gang of persons from Tirunelveli District and Travancore State and some policemen from Tirunelveli District formed into a criminal organisation and operated extensively in Tirunelveli and other districts between the years 1945 and 1947 and cheated the public to the tune of Rs. 3,00,000 by what is known as the "Counterfeit Currency Note Confidence Trick." So far as it is known 34 persons belonged to this gang.

The gang had their headquarters in Tirunelveli in Othuvur Tope. The *modus operandi* of the gang was very interesting and it was shaped on the basis of an intelligent understanding of its psychological effect on the victims chosen. A few of the members acting the role of brokers and agents first got themselves acquainted with their prospective victims and gradually gained their confidence. Thereafter they told the victims in confidence that counterfeit five-rupee currency notes which look exactly like genuine notes would be supplied at half their face value. The victim was then shown some genuine five-rupee notes, somewhat faded, which they exchanged in his presence to create confidence. The victim was then told that these notes are supplied only at such large sums as Rs. 5,000, 10,000 or Rs. 20,000 according to the purchasing capacity of the victim.

A place and time was fixed for the transaction at which the victim was asked to meet the head of the organisation, with the full purchase money which should only be in one hundred rupee notes. Sometimes advances were even taken at the time this arrangement was made. The broker or agent usually accompanied the victim to the appointed place, generally a small railway station, a river bed or other lonely place. The seller of the counterfeit currency notes then appeared with one of his associates, in the role of a servant, carrying a hand-bag or attache-case containing two or three bundles of genuine five-rupee notes at the top, with several bundles underneath, each consisting of a genuine five-rupee note at the top and another at the bottom with plain paper in between cut to the size of currency notes. All these bundles were kept securely tied with twine. The bundles of genuine notes were then shown to the victim to make him believe that all the bundles in the hand-bag or wallet also contained similar notes.

Crucial Moment of Transaction

Exactly at this crucial moment one or more of the associates would be seen moving at some distance as if watching the transaction. The "seller" would thereupon casually draw the attention of the victim to this incident, hinting at the same time that those persons belonged to the C.I.D. The victim was thereupon urged to accept the hand-bag after he had been induced to deliver the cash in advance. To further strengthen the confidence of the victim, the servant was directed to accompany him carrying the bag for him while the rest of the gang disappeared. The victim and the servant together then got into the train, if the place of occurrence was a railway station, and travelled beyond one or two stations.

When the train was in motion and about to reach the next station one or two of the members of the gang, dressed in police uniform, appeared amidst them. The "servant"

and the victim were then accused by them of being in possession of forged currency notes or alcoholic drinks or that they were wanted for trafficking in counterfeit currency notes. The "servant" who would appear scared, was, then detained with the bag at the next train halt. The victim invariably used to keep quiet having been scared and having to slip away unnoticed, while the "servant" with the hand-bag was "marched off" to the police station.

Similar hold-ups were staged by the members of the gangs in river beds or lonely places, where they appeared dressed up as policemen. They waylaid the victim, seized the bag from the servant, threatened to arrest them, beat the servant and took him away with the bag deliberately leaving or allowing the victim to escape for fear of being implicated in the case. If the victim subsequently realised the fraud played on him, he was persuaded to drop the matter and join the gang to recoup the loss sustained by contacting fresh victims and cheating them in a similar manner.

Sphere of Operations

The "sphere of operations" of the gang extended beyond Tirunelveli District to several other districts, namely, Travancore State, Ramnanathapuram, Madhurai, Tiruchirappalli, Coimbatore, Salem, etc., districts from where victims were inveighed and brought to Tirunelveli where they were cheated of their cash.

The shady nature of the transactions and the inherent fear of being implicated in the "counterfeit trafficking cases" made the victims unwilling to prefer complaints to the authorities. This accounts for the fact that the gang was able to operate successfully and widen the sphere of their operations. Investigation was taken up by the Crime Branch, C.I.D. on 14th December 1947, on the complaint of a victim who was bold enough to approach the authorities. Though several victims were either unknown or were unwilling to prefer complaints, many cases committed by the gang were unearthed by the C.I.D.

Thirty-four accused of whom two were taken as approvers, were charge-sheeted under sections 120-B, 420 etc., I.P.C. and a Special First Class Magistrate was appointed to hold the preliminary enquiry of this case and a Special Public Prosecutor assisted by Assistant Public Prosecutor, Grade I, Tirunelveli, were in charge of the Prosecution in the committal court. The preliminary enquiry into this case was started on 26th January 1949, and lasted over five months and 24 accused in the case were committed on 30th June 1949 to take their trial before the Sessions, Tirunelveli.

Considering the voluminous work involved in the trial of this case, an Additional Sessions Judge was appointed and the trial of this case started in the Court of the Additional Sessions Judge, Tirunelveli, on 2nd September 1949. Judgment in the case was pronounced on 21st February 1950. Of the 24 accused who stood charged, twelve of them including two policemen, one a police constable and the other a head constable, were convicted to varying terms of rigorous imprisonment ranging from one year to four years and fine ranging from Rs. 150 to Rs. 1,500 under Sections 120-B and 420, I.P.C. The remaining twelve accused were acquitted.

INDUSTRIES AND LABOUR

the time of registration to "renew" his registration within a specified period in order that the Employment Exchange Office may know that he is still available for employment assistance. The period within which registration is to be renewed is normally two months. When an applicant renews his registration, the period within which he is required to renew his registration again is extended by two months beyond the date on which he renewed his registration first. If an applicant does not renew his registration within the specified period, it is presumed that he no longer is in need of employment assistance and his registration is "lapsed" (i.e., the Employment Exchange Office discontinues its efforts to find employment for him till he registers himself afresh). The date by which registration should be renewed is mentioned in the Registration Card itself. As this Card remains in the possession of the applicant, there is no excuse for his not renewing his registration within the period prescribed.

Method of Selecting Applicants For Submission Against Vacancies

Whenever the Exchange receives any vacancy notification from an employer, all applicants who are registered for employment in the trade or occupation to which the vacancy relates are considered for the vacancy. As, however, only a limited number of persons are to be submitted against one vacancy in accordance with the wishes of the employer, the Exchange scrutinizes the employment index cards to determine the most suitable applicants. The applicants thus selected (between two equally suitable applicants, the one who has been registered longer is selected) are invited to call at the Exchange whenever possible so that the terms and conditions of service attached to the vacancy could be explained to them and their consent obtained for being submitted against the vacancy. The names of the applicants who give their consent are then sent to the employer and the applicants are asked to appear before the employer for an interview. The employer then makes his selection and appoints the person whom he wishes to take in employment.

It will thus be seen that the Exchanges have to limit the submission

of names to employers to the most suitable applicants who are willing to be submitted against the vacancy concerned, and the final selection rests entirely with the employer.

Complaints Of Corruption Or Favouritism

The Exchanges have very strict instructions to be absolutely impartial in making selections and to select only the most suitable applicants. If, however, an applicant feels that he has been overlooked or that he has been submitted against his wishes, and that while a vacancy for which he is most suitable is available he has been submitted against a vacancy of an inferior order, etc., he should approach the Exchange either in person or by writing and the Employment Officer in charge of the Exchange will look into his case and make the necessary enquiries. But if the applicant is still not satisfied and feels that there are good reasons to believe that favouritism has been shown or that proper submissions has not been made, he should address the Regional Director of Resettlement and Employment of the Province in which the Exchange is situated who will arrange for the necessary enquiries to be made. The enquiry will consist of, among other

things, examination of the employment index card in respect of the applicant, the period for which he has been registered with the Exchange, the types of vacancies notified, filled and outstanding during the same period, the vacancies for which he has been considered but which have been declined by him, the vacancies against which he has been submitted and the results thereof, etc. If the objective examination undertaken on these lines shows that the complaint is justified, suitable disciplinary action will be taken against the officers and staff concerned.

Attached to every Employment Exchange, there is an Employment Advisory Committee consisting, among others, of representatives of workers and employers. Members of these committees take an active interest in the working of these Exchanges and they can be depended upon to look into any instances of corruption or favouritism which may be brought to their notice.

As far as the public are concerned, they should know that the service rendered by the Employment Exchanges is entirely free and that the giving and taking of bribes for any consideration to be shown to a particular applicant is an offence.



A delegate of the World Pacifist Conference evincing interest in the cane basket manufactured under the auspices of the Women's Welfare Department, Madras.

GOVERNMENT DEPARTMENTS

Settlement Of Labour—Management Disputes

The Madras Electric Tramways Workers' Union and the Madras Electric Workers' Union, 34, Iyyah Mudali Street, Chintadripet, Madras, have been declared by Government as unlawful under the Criminal Law (Amendment) Act since they are the branches of Communist party of India in Madras Province.

The Central Government has appointed the Director, Labour Bureau, Ministry of Labour, Government of India, as the Competent Authority to ascertain from time to time the cost of living index number applicable to the employees employed in all scheduled employments of the kind referred to in sub-clause (1) of clause (b) of Section 2 of the Minimum Wages Act, 1948 (XI of 1948).

The Minimum Wages (Central Advisory Board) Rules, 1949, enacted by the Ministry of Labour, Government of India, is republished on pages 336 and 337 of Rules Supplement to Part I of the Fort St. George Gazette, dated 22nd November 1949.

The Government have enforced the interim Award of the Industrial Tribunal, Madras, in the dispute between the management and workers of Messrs. Bombay Engineering Works, Madras, regarding payment of wage increments.

The Government have enforced the Award of the Industrial Tribunal for Engineering firms and Type Foundries, in the dispute between the workers and the managements of the Electro-Mechanical Industries, Limited, Madras, regarding (1) payment of dearness allowance and basic wages for the period of the stoppage of work from 21st to 28th April 1949, (2) grant of increment to the Moulding Department, (3) payment of bonus (two months' wages for the years 1947 and 1948), (4) free supply of uniforms to workers working near the furnace, (5) fixing hours of work, (6) recognition of the Union by the management and (7) procedure to be adopted in retrenching workers.

On 21st November 1949, all the workers in the 21 beedi factories in Kurnool, who struck work on 6th November 1949, returned to duty at the intervention of Labour Officer, Guntur, and Collector of Kurnool. The management agreed to pay one anna more to those who work at home (i.e.) Re. 1-2-0 to those who work inside the factory and Re. 1-1-0 to those who work at home per thousand beedies.

The Government have enforced the interim Award of the Industrial Tribunal, Madras, in the dispute between the

workers and management of the Commonwealth Trust, Limited, Engineering Works, Mangalore, regarding locking out of 9 workers on 24th April 1948 afternoon and grant of leave, etc.

The Government have enforced the Award of the Industrial Tribunal, Coimbatore, in the dispute between the workers and the management of the Commonwealth Weaving Factory, Cannanore, regarding (i) revision of rates of wages; (ii) increase of 100 per cent in the basic rates existed on 31st December 1948 to choose and drum winders; (iii) payment of wages to workers, monthly and daily; (iv) payment of wages for the period of closures of the factory from 18th October to 1st November 1948; (v) grant of full work to the winders for six days in the week with full dearness allowance and (vi) reinstatement of a worker with back wages.

The Government have referred to the Industrial Tribunal for adjudication having its place of sitting at Vijayavada the dispute between Sri R. Appa Rao, bus owner, Bheemunipatnam, Visakhapatnam district and his workers in respect of dismissal of five workers.

[Report for the second fortnight of November 1949]

The Working Of Government Transport Service

The total strength of the fleet continued to be 322 as no bus was registered during this month.

On 6th November 1949, Krithigai Day, special buses were run from Kodambakkam Railway Station to Vadapalani Temple in addition to the regular buses of route No. 25.

As usual week-end Excursion specials were run to Mahabalipuram via Tirukalukundram. Besides buses were hired to many public and private institutions for excursions, etc.

Guindy Races started during this month. There were two race days,

one on 20th November 1949 and the other on 27th November 1949. On each day 12 buses were run as Guindy specials. Besides some of the route buses were also diverted to Guindy for the convenience of the public attending the races.

General.—The Government Bus Service Employees' Co-operative Canteen is functioning satisfactorily.

[November 1949.]

Activities of the Food Department

With effect from 27th November 1949 the Government ordered the compulsory issue of 1 oz. of wheat within the scale of 12 oz. to all card-holders in the rationed areas in order to accelerate the disposal of large stocks of wheat available in the Province.

Beaten rice was rationed in the statutory rationed areas of South Kanara district. [November 1949.]



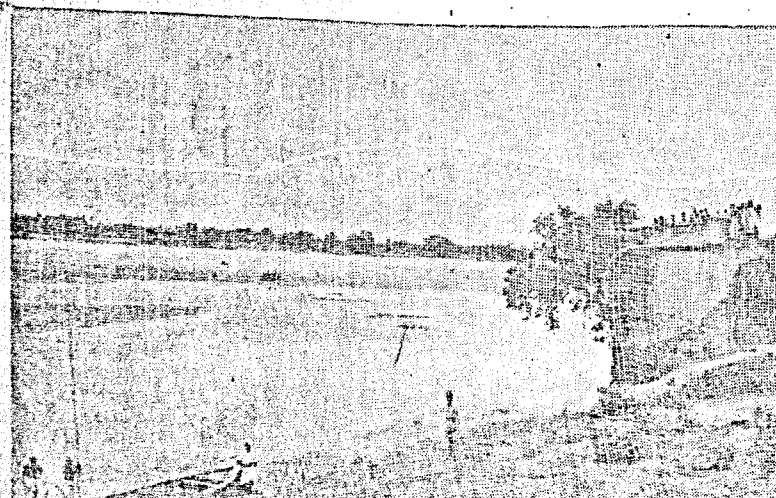
BRIDGE OVER THE COLEROON

The districts of Tanjore and South Arcot are separated from each other by the river Coleroon. Near Anaikaran Chattram, there was a bridge of brick arches of 42 spans of 50 feet each and this was in existence till 1903, when owing to unprecedented flood, it collapsed. Ever since then road communications between Tanjore and South Arcot have been completely cut off thus affecting the economic and social prosperity of the two districts. The Popular Ministry went into the question and it was finally decided on September 1948, that a bridge be constructed at the old site at an estimated cost of Rs. 26 lakhs and a scheme for this was approved. The foundation stone for the bridge was laid by Sri M. Bhaktavatsalam, Minister for Public Works. The site of the bridge has several features. The river is only half a mile in width at that spot with high margins. The bridge will consist of fourteen spans of 120 feet of reinforced concrete.

Top: Sri M. Bhaktavatsalam, Minister for Public Works, addressing the gathering at the function

Dotted lines indicate position of bridge

Right: The site of the new bridge, alongside the ruins of the old one



Uttar Pradesh Prizes for Books in Hindi

With a view to encouraging the production of original works in Hindi in the field of Arts, Science and Literature, the Government of Uttar Pradesh invite all concerned to send their books for the consideration of the Hindi Advisory Committee, for payment of rewards. The rewards will be awarded on works on the following subjects this year :—

Literature.—Poetry, Drama, Novel, Essay, Criticism, Grammar and Philology.

Art.—Economics, Sociology, History, Politics and Philosophy.

Science.—Agriculture, Gardening, Botany, Zoology, Geography, etc.

Books on Criticism, Sociology, Law, Mechanical Art and outstanding books on Geography will be specially considered.

The following rules will be observed :—

(1) Books already received in the previous years will not be considered.

(2) Six copies of the published works and four copies of the unpublished works must reach the office of the Secretary to Government, Uttar Pradesh Education (A-2) Department, by August 1, 1950, at the latest.

(3) Manuscripts of the unpublished works should be typed on foolscap size paper with margin and double spacing in between the lines. Handwritten copies can also be accepted if they are neatly and legibly written. The manuscripts should be bound.

(4) Books received after the due date will not be accepted in any case.

(5) Unbound proof copies of the essays or booklets or books will not be accepted. Cuttings from the papers will also not be accepted.

(6) The writers should retain a copy of their unpublished books with them.

(7) The rewards are open to the authors of all the States in the Indian Union.

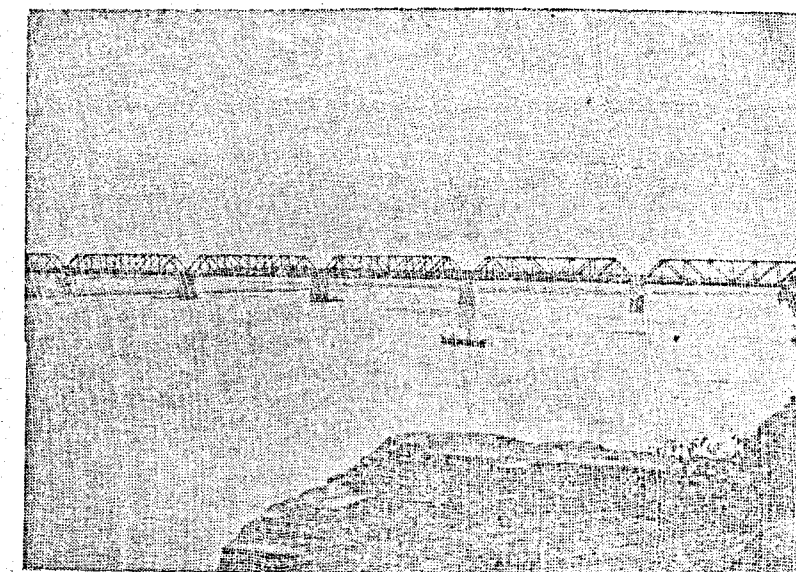
(8) The books and manuscripts received will not be returned in any case.

(9) Only original works will be considered. Translations and compilations will not be considered.

(10) The permanent address of the author should be legibly written on every copy of the book or manuscript submitted so that there may not be any difficulty in addressing him when necessary. Books should be submitted with forwarding letters.

(11) Books should be submitted in registered parcels, acknowledgment due.

(12) Only books published since January 1947 should be submitted for consideration.



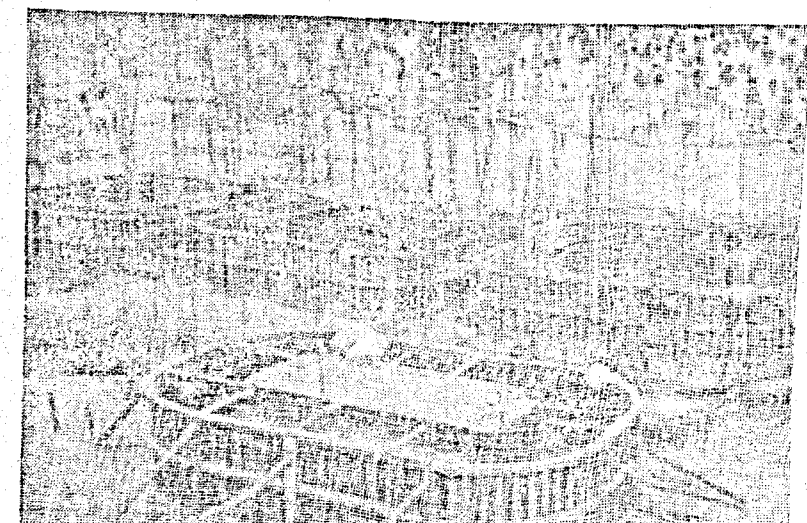
Railway Bridge near the Coleroon Bridge

Indian Trade Unions Act

At the beginning of the financial year 1948-49 there were 531 unions on the register. One hundred and seventy-nine unions were registered under the Act during the year and the registration of 97 unions was cancelled. The total number of unions registered since the commencement of the Act was 958 of which 613 unions were actually on the register at the end of the year under report.

The number of members in the registered trade unions was 201,291 and the balance of amount in the General Fund at the end of the year was Rs. 3,77,919-11-4. The corresponding figures for the previous year were 312,084 and Rs. 5,07,749 (corrected to the nearest rupee).

Foundation blocks laid for the new bridge



"Achievement Audit"

A number of Grow More Food Aids like improved seeds, fertilizers, green manure, new irrigation, etc., are given by Government to the ryots on the basis of subsidy, the expenditure on account of which is shared by the Centre and the States in the ratio of 50: 50. Governments, both Central and States, are therefore anxious to assess the results of these Grow More Food Aids accurately.

Hitherto the method of estimating additional production from any given Grow More Food measure is to multiply an assumed increase in yield per unit of the measure by the total number of units actually distributed. In assessing, for example, the additional production from the distribution of ammonium sulphate, a certain rate of increase in yield per ton of the fertilizer is taken for granted and multiplied by the total quantity of the fertilizer distributed. Alternatively the assumed rate is converted to per acre basis and multiplied by the calculated acreage obtained by dividing the total quantity distributed by the rate prescribed. The method is defective for several reasons:—

(1) The quantity distributed may not have been applied in actual practice through misuse by diverting it to non-food crops, feeding to cattle, eating of seed, etc., and also through applying it in doses different from those recommended by the Department.

(2) The rate of response assumed may not be true under cultivator's conditions and cannot in any case be an invariant in all seasons.

(3) The additional production resulting from the joint application of more than one Grow More Food measure cannot be assumed to be a simple addition of the estimated additional production from individual Grow More Food items.

In order, therefore, to be able to obtain a reliable estimate of the additional production, it is essential to know the actual savings in receipt of Grow More Food Aids and to estimate the rates of response through controlled experiments on the cultivator's field.

For this purpose a technique has been evolved at the recent All India Conference of Government Agricultural Statisticians held at Indore. The essence of this Scheme which is based on the experience of pilot experiments worked out in United Provinces, Central Provinces and Bombay consists in designing and conducting a series of experiments on the ryots' fields both at the pre-sowing and at the pre-harvesting stages. The series of experiments relating to the pre-sowing stage will consist of "treated" fields on which experiments will be conducted to test the results of improved seeds. These "treated" fields will have their corresponding "controls," where cultivation is continued without the improved seeds.

The selection of the fields is based on the stratified random sampling method. The experiments will be carried out in districts receiving the bulk of the Grow More Food Aid, such as East and West Godavari, Krishna, Guntur, Nellore, South Arcot, Tanjore, Tiruchirappalli and Tirunelveli.

The experiments at the pre-harvesting stage will be carried out to assess the rates of response to the application

of improved seeds, fertilizers, green manure, and new irrigation singly and in combination. These experiments will naturally be larger in number and will cover a wider area, namely all the nineteen districts important for paddy growing. It is expected that these two sets of experiments together would give a correct picture of the rates of response to the Grow More Food Aids and the quantities diverted to other purposes. For this purpose a conference of Regional Officers in charge of Crop Cutting Experiments has been convened by Dr. B. Natarajan, Economic Adviser to the Government of Madras at Fort St. George. The Officers are given the necessary training in carrying out the experiments. Sri M. Satyanarayana, B.A., B.Sc. (Agr.) Special District Agricultural Officer, is in charge, of the training.

The experiments are to be held on one-cent plots on the ryots' fields. The success of the experiments largely depends on the co-operation which the officials in charge of the experiments receive from the local ryots. These experiments have far reaching significance to the Grow More Food Campaign, and to the ryot their educative value is of a high order. It is therefore hoped that the ryots in the areas concerned will extend their earnest co-operation in the conduct of the experiments both at the pre-sowing and at the pre-harvesting stage.

Manuring Cotton with Artificials

With the partition of the country the greater portion of the area under irrigated cotton has fallen to Pakistan. India is deficit in respect of her requirements of raw cotton. Pakistan which used to meet the greater portion of the deficit can no longer be depended upon. In order to keep her textile mills going India has to import large quantities of raw cotton from abroad. It is therefore of the utmost importance that in this State the production of cotton should be stepped up in all possible ways to help the country to meet all demands in the shortest possible time.

One of the means of increasing the production from the existing areas is by paying attention to the manuring of the crop. Experiments conducted at the Agricultural Research Stations in this Presidency have shown that cotton crop responds in an appreciable manner to nitrogenous manures, especially under irrigated conditions and in areas of adequate rainfall. Under irrigated conditions favourable responses have been obtained to levels of Nitrogen as high as 100 lb. N per acre.

The high levels however appear to be uneconomical and the most economical dose may be put at 60 lb. N per acre. Under rainfed conditions the response depends on the adequacy of rainfall and the optimum level of N may be taken as 40 lb. N per acre.

Direct manuring of cotton with nitrogenous fertilisers like ammonium sulphate has resulted in increased yields ranging sometimes up to 100 per cent. To meet the needs of the ryots of the cotton growing tracts an allotment of 5,000 tons of ammonium sulphate has been made by the Indian Central Cotton Committee and a further quota is expected from the Central Government.

Manuring of Cotton with Ammonium Sulphate

It needs no repetition to say that our country is experiencing acute shortage of cotton. The Government are tackling the problem in all possible ways with the resources on hand. Of the various methods recommended, manuring of cotton in certain specified zones where cotton has been found to show a positive response to manure, is one that is required to be advocated intensively. There seems to be a misapprehension on the part of many farmers on the efficacy of manuring to cotton. Actually the limiting factor being water, cotton responds to nitrogen under rainfed conditions in regions where the annual rainfall is above 27 inches.

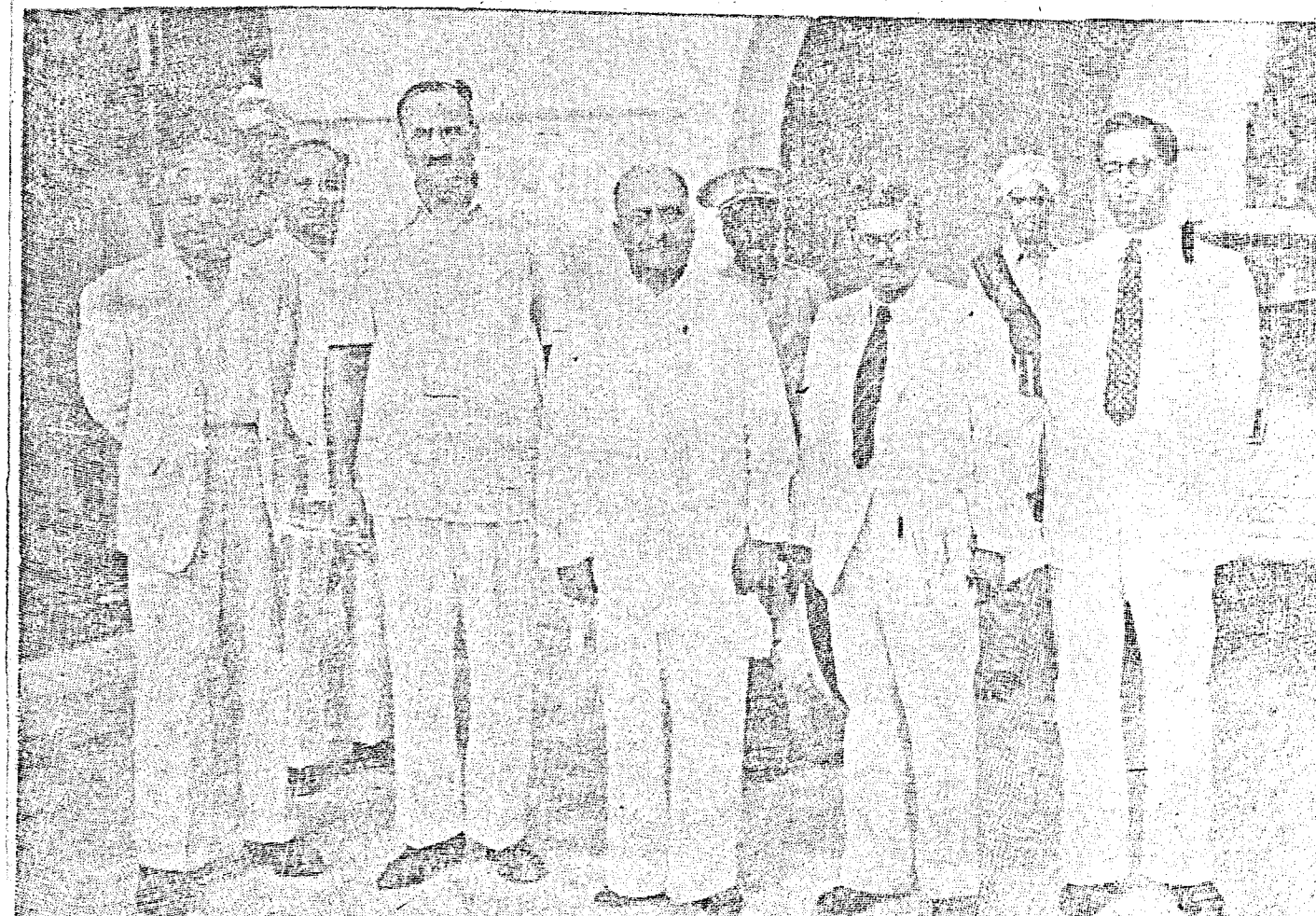
Under irrigated conditions, there is always positive response in all tracts as water-supply is not a limiting factor. Since nitrogen is at present cheapest in the form of ammonium sulphate, manuring with ammonium sulphate is recommended. One hundred weight of ammonium sulphate per acre for rainfed cotton in specified areas (viz.) the Tinneis Tract comprising of Madhurai, Ramanathapuram and Tirunelveli and 2 cwt. of ammonium sulphate per

acre for all irrigated Cambodia cotton is the dose recommended for soils of average fertility. Response is greater in soils of high fertility and the dosage for irrigated cottons may suitably be increased up to 60 lb. nitrogen (i.e.) 3 cwt. of ammonium sulphate per acre in such cases. The manure is better broadcast and covered before sowing for rainfed cottons and applied preferably in two equal doses one before sowing and the other at the time of bud formation and first hoeing to irrigated cottons. The second dose of manure applied to irrigated cotton should be followed by two copious irrigations at closer intervals.

Every pound of nitrogen applied to rainfed cottons is expected to produce an additional pound of lint per acre in soils of average fertility and 2 lb. of lint per acre in soils of high fertility while for irrigated Cambodia 2½ lb. of lint per acre is expected. Till now cotton manuring was not advocated to farmers since no manure was available for commercial crops like cotton when the quota was not sufficient even for food crops. Secondly the margin of profit was not attractive due to comparatively low prices

The Chairman and Member-secretary of the Cotton Marketing Committee with officers of the Government of Madras

Left to right: Sri S. N. Venkataramanan, Provincial Marketing Officer, Sri T. Prasad, Senior Marketing Officer, Government of India and Member-Secretary of the Cotton Marketing Committee, Dr. Panjar Rao Deshmukh, Chairman, Cotton Marketing Committee, Sri N. Murugesu Mudaliar, Deputy Secretary and Sri V. Vasudevan, Assistant Secretary, Food and Agriculture Department



of raw cotton. Now that the cotton prices are attractive and a special quota of 500 tons of manure for cotton is allotted for this state, the farmers are requested to take advantage of the situation and increase yield per unit area and co-operate in the special drive for producing more cotton and help in the solving of this cotton shortage.

There seems to be another wrong notion of the quality of ammonium sulphate packed in straw bags and gunny bags and paper bags. The difference in packing is more due to shortage of packing material, but it has nothing to do with the quality, as all ammonium sulphate contain the same percentage of the active ingredient nitrogen—20 per cent.

Cotton farmers in the summer cotton area of Ramaswamyapuram, Mathurai, Tirunelveli and South Arcot will gain very much by manuring their cotton crops.

The Editor,

"Madras Information,"
Madras.

Sir,

May I request the hospitality of your columns for giving wide publicity to the plant protection service of the Agricultural department. I own a garden of 40 acres mango in Polakala village of Chittoor taluk. For the past five or six years I never used to have a crop owing to insect trouble. When the insects appear the flowers used to drop down and a black viscous liquid used to drop all over the leaves. This year the Plant Protection Staff at Chittoor advised me to protect the mango crops with Gaseol 550 (D.D.T.) at the rate of one lb. for 36 gallons of water. They also gave me two Hyject foot pumps for spraying and also helped me with detailed instructions.

The first spraying was given during January 1950, first week, when my entire garden was sprayed. The second spraying was done during the last week of January 1950. Immediately after the second spraying there was rainfall and most of the chemical washed off. In spite of the fact there was very good effect. For the first five or six years I never used to get more than one or two cart loads of fruits. This year as a result of spraying I have been able to sell the present crop for Rs. 8,500.

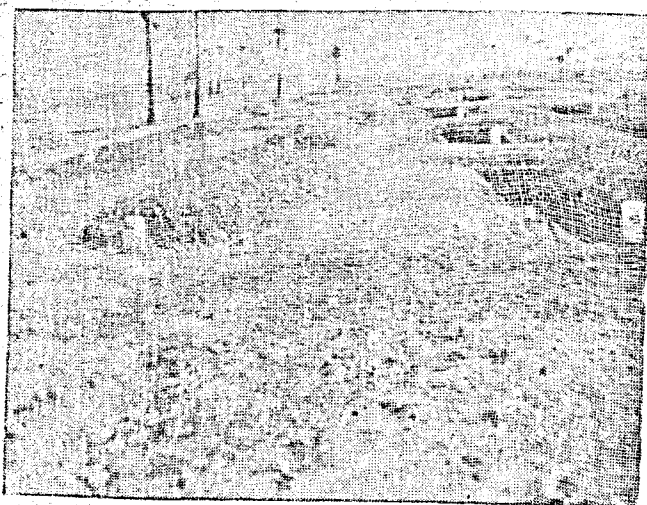
The cost of medicine and spraying charges have come to Rs. 250.

The surrounding mango gardens were not sprayed. In these gardens flowering was normal but due to the insect damage fruit setting did not occur. Further in the surrounding villages the insect has been the cause for total failure of the crop. The plant protection staff of the Agricultural department has shown us the mango growers, on account of this insect trouble. I am grateful for the help they have done for me.

I request through your esteemed columns that every mango grower should take up this method and protect his mango crop.

Yours faithfully,

P. RAMACHANDRA REDDI



The compost ground in the Tirumangalam Panchayat, showing trenches with and without compost

Compost in Tirumangalam

Tirumangalam Panchayat is one of the Taluk Headquarters in Mathurai district, with a population of 11,111 as per the 1941 census. The Executive Officer, started compost manufacture by the Bangalore process with the help of a trained Sanitary Inspector. Trenches of 33' X 7' X 3½' with 12' interspaces were dug, and composting commenced recently.

In Tirumangalam Panchayat there are 3,658 houses of which 3,066 houses are without latrines. In almost all major Panchayats of this State numbering 355 in all, the percentage of houses without latrines are considerably high, and as such the quantity of compost that is expected from each panchayat will be very low; steps are to be taken immediately for providing latrine to each house. It is noted that in 355 major panchayats 60 to 70 per cent of houses in each panchayat are not provided with latrines. In such cases the compost to be manufactured with the daily collections of sweepings and excremental refuse will be eventually poor in quality and in quantity. In the Tirumangalam Panchayat 3,520 lb. of sweepings and 2,400 lb. of nightsoil are made available daily for composting as against 6,000 lb. of sweepings and 4,000 lb. of nightsoil being the daily estimated actuals to be made available under the existing conditions for composting.

If the other panchayats in the State—307 panchayats, excluding the 48 panchayats which are now manufacturing compost—were to follow Tirumangalam, it will be possible to get two lakhs of tons of compost in each year for applying to lands which are located within the easy reach of all panchayats. With this quantity of compost it would be possible to manure 40,000 acres of lands which are located in the vicinity of panchayat limits and thereby obtain increased production of food crops.

Remission to Flood Affected Areas

The Government have sanctioned the grant of remission of assessment on both wet and dry lands affected by the floods of September 1949 in the villages of Bogolu and Lingapuram in Cumbum Taluk, Kurnool District, on the scales mentioned below :—

(1) *Wet lands*.—With outturn of four annas and below—Full remission. With outturn of above four annas—No remission.

(2) *Dry lands*.—With outturn of four annas and below—Full remission. With outturn exceeding four annas but below eight annas—50 per cent remission. With outturn of above eight annas—No remission.

The Government have also sanctioned the remission on the scales mentioned above in respect of the following items :—

- (i) portions of lands ordered or temporarily rendered unfit for cultivation by floods, submersion, or silting up ;
- (ii) unobjectionable cases of sivoyijama cultivation ;
- (iii) minor inam lands charged with quit-rent or jodi equal to or more than the full assessment ;
- (iv) minor inam dry lands which pay favourable rates of quit or jodi as in excess of the assessment actually paid on similar ryotwari lands after allowing the concession ;
- (v) minor inam wet lands subject to the conditions applicable to ryotwari wet lands ; and
- (vi) lands assigned temporarily.

Full remission of land revenue for fasli 1359 for the actual extents of lands ordered or temporarily rendered unfit for cultivation by silt or sand on account of the floods in the villages in the Cumbum and Markapur Taluks has also been sanctioned by the Government.

Sewage Farm

Tindivanam is a new municipality, operating from April 1, 1949. There is no drainage system in the town and till recently the sullage water collected in casks from cesspools used to be discarded indiscriminately all over the town, thus proving a source of annoyance to the public and a loss of valuable manure content.

Now the entire sullage is saved and a sewage farm has been started which provides grass all through the year. The sullage nuisance is avoided and at the same time the Council has to its credit a source of income by way of sale of surplus grass after feeding the municipal draught animals. An efficient public utility has thus been created.

The Council has taken on lease a private waste site (since no Government poramboke is available), not far from the town and yet not too near the residential areas. Casuarina fencing has been put all round the farm. The farm, started in June 1949 on 30 cents of land, has already given six cuttings to the value of Rs. 300. The grass is sold at three pies per pound and all surplus grass over and above municipal requirements is given to the Co-operative Milk Supply Union for distribution to members. Even during the hot days when grass is scarce, the Council gets enough fodder for its cattle.

The Sewage Farm Scheme is an efficient enterprise, worthy of being copied with advantage by all municipal and major panchayats, many of which lack a drainage system. This will prevent sullage water being wasted from the manure point of view, or sewage refuse being allowed to stagnate in pits and low-lying areas, thereby endangering the health of the community.

Tractor Hire Charges Raised

Consequent on the revision of rules concerning financial assistance to States for Intensive Cultivation Schemes, the Tractor Reclamation Schemes have become non-eligible for a subsidy by the Government of India. In view of this and in view of the large demand for tractors for mechanical cultivation, the Government after thorough examination, consider that full economic rates of hire charges might be levied so as to work the intensive cultivation schemes without loss to them. Accordingly, they have passed orders enhancing the rates of hire charges for the supply of tractors to ryots as follows :—

(Existing rates are shown in brackets.)

(1) Ploughing by all types of tractors, Rs. 10 per acre (Rs. 5 per acre).

(2) Harrowing (Shallow ploughing), Rs. 5 per acre (Rs. 3 per acre).

(3) Levelling with bulldozers TD-7 types, Rs. 12 per hour (Rs. 9 per hour).

(4) Levelling with bulldozers D6, TD-14 types, Rs. 10 per hour (Rs. 7 per hour).

(5) Levelling with bulldozers TD-9, TD-6, and T6 types, Rs. 8 per hour (Rs. 7 per hour.)

(6) Levelling with bulldozers D-4 type, Rs. 8 per hour (Rs. 5 per hour).

These enhanced rates come into effect from 1st July 1950.

Iron and Steel for Factories

At present Steel Processing Factories, which were registered under the Indian Factories Act and have been using power before 1st April 1946 are only eligible to get allotments of iron and steel from the Steel Processing Industries Quota administered by the Directorate-General of Industries and Supplies, Ministry of Industry and Supply, New Delhi. The Government of India have now relaxed this condition and have ordered that with effect from Pd. III/50 (July to September 1950) all Steel Processing Factories, which were registered under the Indian State Factories Act, and have been using power before 20th March 1950 are eligible for allotment of iron and steel from the Steel Processing Industries Quota. They have also decided that the work of allotting steel should be divided between the Centre and States and have, for that purpose, classified the steel processing factories as follows:—

- (1) Factories engaged solely or in conjunction with other work in Structural fabrication.
- (2) Manufacturers of drums and tin-containers (including food containers.)
- (3) Other Steel Processing Factories employing 100 or more labourers before 20th March 1950.
- (4) Central Government Workshops.
- (5) Educational Institutions sponsored by the Ministry of Education, Government of India.
- (6) Factories engaged in the manufacture of drums and tin-containers in addition to any other articles.
- (7) Others.

Factories falling under classes (1) to (6) above will continue to get their requirements from the Directorate-General of Industries and Supplies, Ministry of Industry and Supply, New Delhi, as at present.

Factories falling under class (7) above will be allotted iron and steel from a separate quota to be placed at the disposal of the State Government every quarter beginning from Pd. IV/50 (October-December). This class of factories should apply at once in the prescribed form to the Director of Industries and Commerce, Madras, furnishing full particulars called for therein. The quota allotted for them will be distributed by the Director of Controlled Commodities, against permits on the registered stock-holders.

No factory established after 20th March 1950 will be eligible for the allocation of iron and steel unless prior approval of the State Government is taken before its establishment.

Change in Curricula Stayed

As it has been represented that the recent Government orders in relation to the study of languages will not give sufficient time for the preparation of syllabus and that working will be difficult this year, the Government have decided to keep the orders in abeyance for this year. They direct that until further orders, there will be no change in the curricula and regulations governing the study of languages this school-year.

Rs. 5 lakhs for Taluk Hospitals

A provision of Rs. 5 lakhs has been included by Government in the annual estimate of expenditure for 1950-51 for the improvements to and electrification of certain Taluk Headquarters Hospitals. The Taluk Headquarters Medical Institutions which will be taken up under the proposed scheme are—Government Hospitals: Proddattur (Cuddapah District), Peddapuram (East Godavari), Polavaram (West Godavari), Narasaraopet (Guntur), Coondapoor (South Kanara), Nuzvid (Krishna), Pattikonda (Kurnool), Periakulam (Madhurai), Manantoddy (Malabar), Atmakur (Nellore), Gudalur (The Nilgiris), Paramakudi (Ramanathapuram), Dharmapuri (Salem), Maithargudi (Tanjore), Nanguneri (Tirunelveli), Karur (Tiruchirappalli), and Palkonda (Visakhapatnam).

Short-Term Plan for Cotton

The Government have approved a short-term plan for bringing 6.57 lakhs of acres under cotton cultivation, which would result in an additional production of 94,000 cotton bales. This short-term plan aims at expanding cotton production in this State through (1) expansion of area under cotton, (2) manuring of cultivated cotton area with sulphate of ammonia, (3) mixed cropping of cotton with groundnut, chillies or ragi, and (4) the use of improved cotton seeds. The Government have sanctioned the employment of a special staff for working out this short-term plan.

Chief Electoral Officer

The Government have passed orders changing the name of the Provincial Elections Commissioner of the Madras State as Chief Electoral Officer. Sri S. Venkateswaran, I.C.S., Provincial Elections Commissioner, will continue as the Chief Electoral Officer and ex-officio Additional Secretary to Government in the Public Department.

Sivaganga Municipality

The Government have notified their intention of constituting as a municipality, with the name of Sivaganga, an area now lying within the jurisdiction of the Sivaganga Panchayat (Ramanathapuram District). Any inhabitant of the local area desiring to object to the proposal may submit his objection in writing to His Excellency the Governor within six weeks from the date of publication of the notification in the *Ramanathapuram District Gazette*.

National Day

The Government of India have had under consideration the question as to how the 26th January and the 15th August should be observed in future. It has now been decided that so far as Indian Missions overseas are concerned, there should only be one National Day and that should be the 26th January. In India also the 26th January would be the principal National Day, though the 15th August also is a very important day.

August 15th will also, therefore, be celebrated as a public holiday in India with such celebrations attached to it as may be decided by the Government of India.

Mettur Reservoir Yields Good Fish

Experiments conducted at the Mettur Reservoir have revealed that it could be made to yield easily over 9,000 tons of fish a year without any fear of depletion. The Fisheries Department is adopting latest methods of fishing at the reservoir, and are catching every day over 1,000 lb. of fish, besides encouraging private fishermen to fish in that area. A portion of fish thus caught is marketed fresh in and around Salem, while the remaining is salt cured under hygienic conditions and sold to the public.

Madras Scales for Sandur Staff

Consequent on the merger of Sandur State with Madras, the question arose as to from what date the Sandur State employees who were absorbed in Madras service should be allowed the Madras rates of pay and allowances. The Government after careful consideration direct that such of the State servants as are eligible for the Madras rates of pay and allowances after absorption shall be allowed to draw the rates and allowances from September 1, 1949.

Sub-Magistrates

The Government have directed that the candidates regularly appointed as Sub-Magistrates should be required to execute an agreement binding themselves to serve the Government for a period of two years.

Cattle Pounds

The number of cattle pounds at the end of the triennium ending 31st March 1949 was 8,608 as against the figure 8,597 for the triennium ending 31st March 1946. The receipts and charges during the period under report amounted to Rs. 14.81 lakhs and Rs. 8.702 lakhs as against Rs. 11.10 lakhs and Rs. 7.00 lakhs, respectively, during the triennium ending 31st March 1946.

Bloodmeal Adhesives

The method of preparation of bloodmeal adhesives for commercial plywood on which experiments have been conducted at the Indian Forest Research Institute, Dehra Dun, is described in a leaflet (I.F.R. 108) just published. It is stated that whole bloodmeal prepared by drying fresh blood at about 60°C and 60 per cent relative humidity is suitable for the preparation of adhesives for commercial plywood.

Blood albumen glues have been used in Europe and America for a long time but they are practically unknown in this country. But in the present shortage of casein and other adhesives, bloodmeal adhesives are likely to be useful for the plywood industry.

More Public Telephones

Four more public telephone call offices have been recently opened at the following places in Madras City: the Elephant Gate Police Station, the Royapettah Police Station, the Royapuram Police Station and the Corporation Overseer's Office, Perambur.

WORTH OF TREE

"Equal to ten wells is a tank;
Equal to ten tanks is a son;
Equal to ten sons is a tree:

—Agni Purana

Village Name Changed

The Government direct that the name of the village "KATTAGARAMPALAIYAM" (கட்டகரம்பலையம்) in Polur Taluk, North Arcot District, be changed into "KETTAVARAMPALAYAM" (கேட்டவரம்பலையம்).

Bharathi's Works

The original manuscripts of poet Subramania Bharathi, now kept in the Government Museum, have been scientifically reconditioned for preservation.

Assistant Engineer Dismissed

The Government have dismissed from service Sri S. Jagannathaswami Patro, Assistant Engineer, Nandyal subdivision, Kurnool District, on the recommendation of the Tribunal for Disciplinary Proceedings, which found him guilty of accepting illegal gratification.

Arantangi

The Government have accepted the recommendations of the Board of Revenue and have directed that the wet lands in Arantangi Taluk, Tanjore District, where there has been failure of crops during fasli 1359, should be granted remission on a liberal scale.

Dairy Husbandry

A scheme involving a net expenditure of Rs. 450 for giving practical training at Coimbatore in dairying to twelve cultivators during the summer vacation has been sanctioned by Government.

The scheme will be taken up immediately and the training will be limited to a period of four weeks. The trainees will be paid a stipend of Rs. 30 per mensem each and will be provided free lodging in the Agricultural College Hostel, Coimbatore.

Bangalore Diploma

The Government have passed orders that the diploma in Civil Engineering of the School of Engineering, Bangalore, granted in or after 1947-48 under the revised scheme of two years' duration, be deemed as equivalent to the new Overseer Diploma of the College of Engineering, Guindy.

Cabinet Food Committee

The Commissioner of Food Production has been appointed by Government as Secretary to the Cabinet Committee for Food Production.

The Zoological Gardens

By SRI A. SANKARAN, B.Sc., Superintendent, The Madras Zoo.

The Zoological Gardens are open for admission from 6-30 a.m. to 6-30 p.m. on all days and the admission is regulated by a nominal fee of two annas per adult. Recognised elementary school children between the ages of three and twelve years are admitted at a concessional rate of an anna per child. Richly caparisoned elephants and camels are hired out to the public for use on ceremonial occasions. Boating has become more and more popular with a large number of visitors to the Zoo. Seven vessels are placed in the Zoo lake. Both adults and children avail themselves of the boating facilities afforded. Adults are charged at the rate of annas two per head and children at one anna per head per round.

The Zoo contained a rare collection of animals; but in the year 1942 when the City was threatened with imminent danger from aerial bombardment, all the carnivorous animals had to be shot as a measure of safety. Such of the animals as could be safely removed outside the City were all removed to Erode and housed there with the kind permission of the Erode Municipality for a period of two years. The Corporation has been endeavouring to replenish the Zoo with rare animals. Animals like hippopotamus, rhinoceros, tapir, etc., have become very costly—as much as Rs. 10,000 each and even more. Due to continuous rise in the cost of foodstuffs and consequent increase in expenditure, the question of acquiring more rare specimens has become difficult. The Zoo therefore has to depend on benevolent donors for supplying gratis rare species of animals and birds. His Excellency the Governor of Madras, Maharaja of Bhavnagar, on a visit to the Zoo during 1949, presented to the Zoo seven American macaw parrots variously coloured and a pair of gibbons from his personal collection. He was also gracious enough to present four albino bucks. Subsequently, the Sourashtra Government gave as gifts one black panther, two leopards, one tiger, three lions and five lionesses.

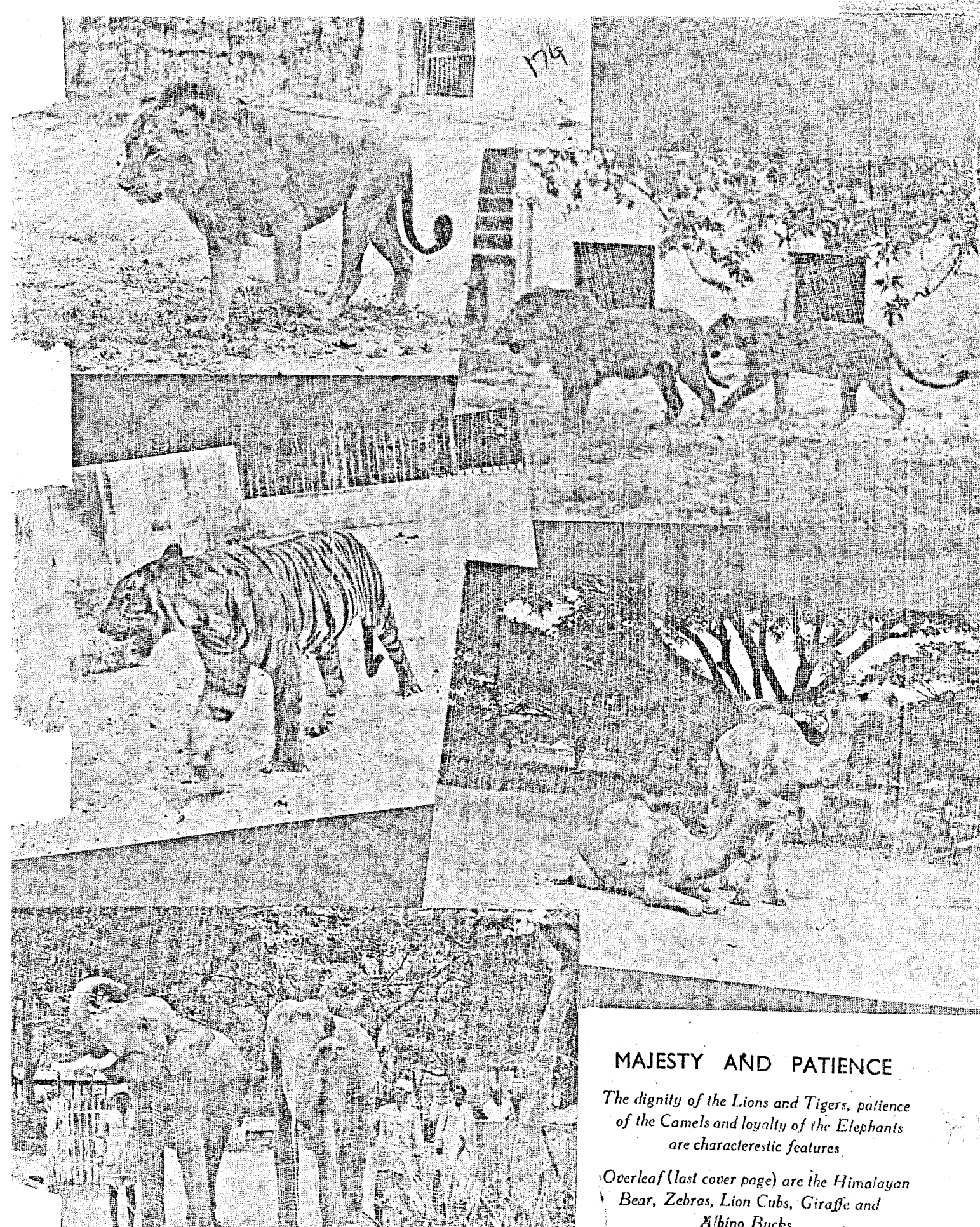
The young ones born in the Zoo are lovely to look at; there are the lion cubs, panther cubs, hyaena cubs, white fawns, mouse-deer, zebras and other common animals. Feeding the 'big cats' is very interesting to watch. How deftly the gibbons drink tea with their dexterous fingers and do acrobatics on the parallel bars, shrieking all the while! One is astonished to see the Adjutant Stork catch meat thrown from a distance by the keepers, and is tempted to ask: "Why should they not be included in the India XI for the next test match?" Other fascinating sights are: the Saras cranes, a scrupulously clean bird, rinsing the pieces of meat in water to remove dirt and sand before swallowing them; the stalwart langur performing Tarzan feats, the huge crocodiles coming on land at the call of the keeper to take their feed; the albino buck and spotted deer springing and leaping with grace and speed; the bears bathing in the tank before they go for dinner; the tall giraffes reaching top branches with their long necks for leaves some twenty feet high; the ride on the elephants and camels; the dancing peacocks, the colourful macaws; lastly the graceful fish Gourami with its subtle movements in the big trough—all these cannot fade from one's memory.

The Madras Zoological Gardens started originally as a Menagerie in the year 1853 as an adjunct to the Madras Government Museum at Egmore. It was in the year 1861 that the institution was shifted to its present place in the Peoples' Park. From 1866, its control and management came to be vested with the City Corporation.

The Zoological Gardens extend over an area of 11 acres. It might appear to be small to certain people who have visited Zoos in other presidencies; but this one has an unique feature which is admired by many a foreign tourist. Very often visitors ask: "Has this Zoo been formed around the lake or has the lake been formed inside the Zoo?" The beautiful lake with a broad island in the middle is a natural formation. The aesthetic designers of the Peoples' Park thought that this was the best place to bring in the Zoo and today the lake inside the Zoo is of great interest to the visitors.

The Zoo has undergone many important changes at different periods of its long history; various enclosures for animals have been remodelled at heavy costs to afford more accommodation and to provide as much natural habitat as possible to the animals. From the artistic main entrance, well-laid roads bordered with flower beds and lawns lead to various cages and sheds inside. These roads enable even invalids to approach the enclosures in motor-cars of their own and view the animals at close quarters. The garden has been considerably improved and huge shady trees keep the visitors going without any fatigue. There are resting sheds for the convenience of visitors and a canteen centrally situated to cater light refreshments. The Corporation band is in attendance on important occasions to entertain the visitors.

PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRESS, AND EDITED AND PUBLISHED BY THE DIRECTOR OF INFORMATION AND PUBLICITY, GOVERNMENT OF MADRAS.



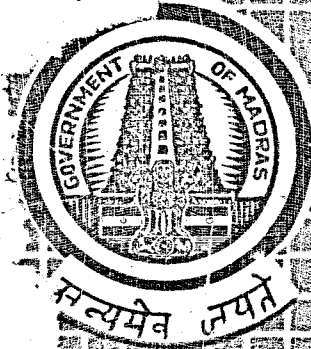
MAJESTY AND PATIENCE

The dignity of the Lions and Tigers, patience of the Camels and loyalty of the Elephants are characteristic features.

Overleaf (last cover page) are the Himalayan Bear, Zebras, Lion Cubs, Giraffe and Albino Bucks.

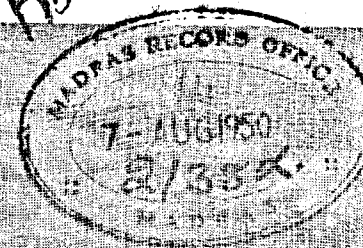


AT THE ZOO



MADRAS INFORMATION

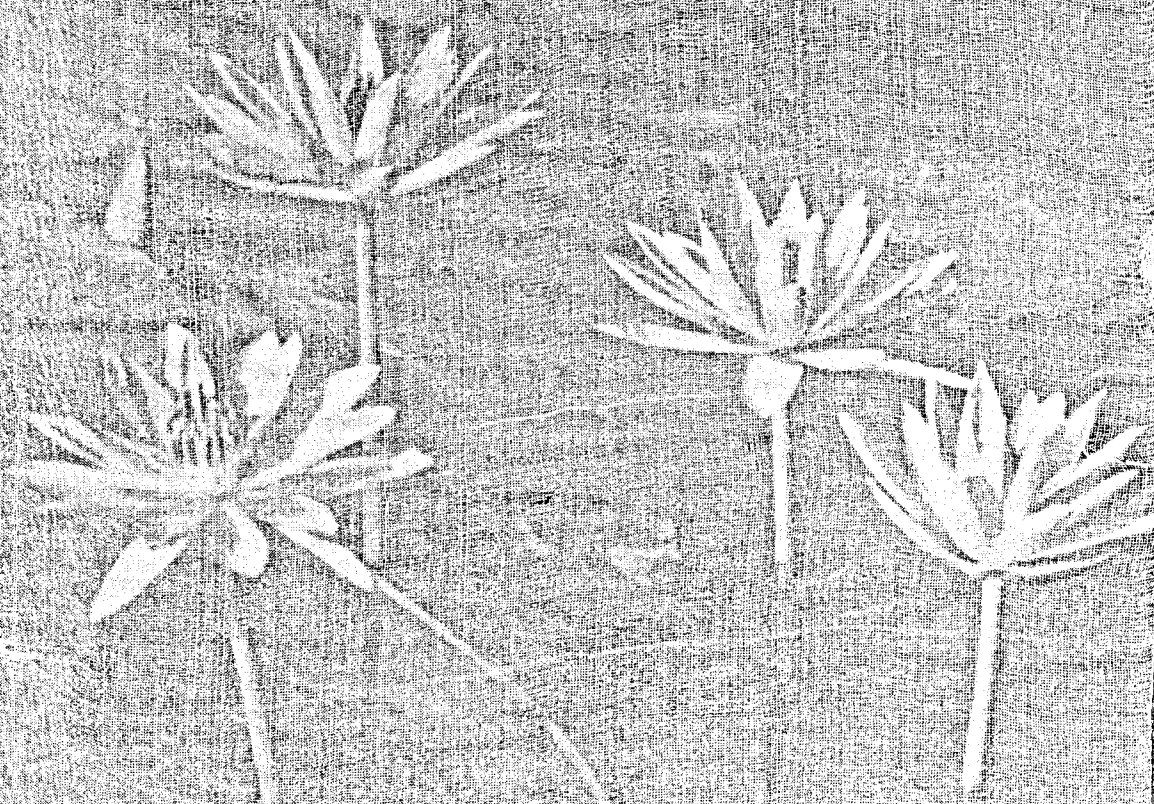
9/8/50 175

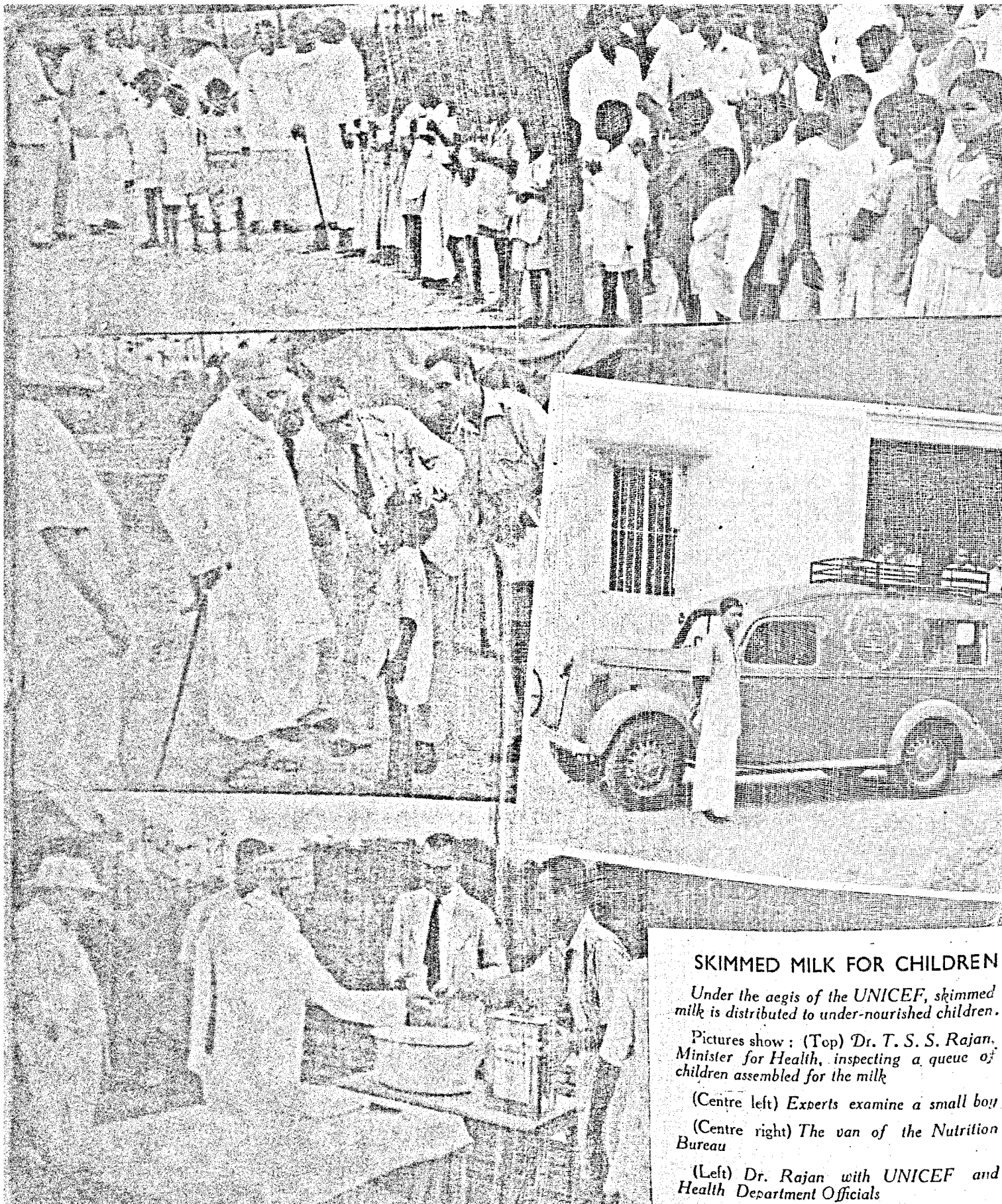


OL. IV. NO. 8

MADRAS
AUGUST
1950

Price, As. 3





SKIMMED MILK FOR CHILDREN

Under the aegis of the UNICEF, skimmed milk is distributed to under-nourished children.

Pictures show : (Top) Dr. T. S. S. Rajan, Minister for Health, inspecting a queue of children assembled for the milk

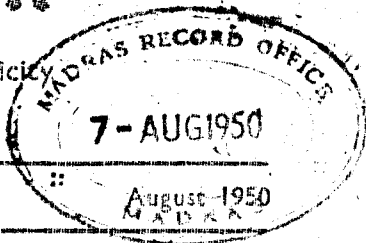
(Centre left) Experts examine a small boy

(Centre right) The van of the Nutrition Bureau

(Left) Dr. Rajan with UNICEF and Health Department Officials

Madras Information

Published every month by the Director of Information and Publicity
Fort St. George



Vol. IV, No. 8

"WE SEEK TO SERVE AND NOT TO COMPETE"

CONTENTS

PROGRAMMES—

1. Government and Industry—Chief Minister's Review 3

FOOD—

2. Operation Grow More Food 8
3. Food Offences and Punishments Awarded 10

IRRIGATION—

4. Schemes sanctioned in May

CO-OPERATION—

5. Developing Cottage Industries through Co-ops.
6. Advisory Boards for Cottage Industries
7. Cottage Industries Board Reconstituted 17

AGRICULTURE—

8. Wild Life and the Soil—Lieut.-Col. R. W. Burton I.A. (Retd.) 18
9. Tree-Planting for National Welfare 20
10. Trees and Human Welfare—Sri A. B. Shetty 21

EDUCATION—

11. The New Public Libraries Act—Sri Rajiah D. Paul 23

FISHERIES—

12. Statistics of Fish Landings 26

HEALTH—

13. Tradition and Sanitation—Dr. T. S. S. Rajan 27
14. Leprosy—Sri T. N. Jagadisan 29

DEFENCE—

15. The Role of Naval Aviation 32
16. Awards for Gallantry 33

NEWS AND NOTES—

17. Press Notes and Releases 34

LAW AND ORDER—

18. Thefts of Textile Bales from Running Trains 36
19. Corruption Cases Among Government Servants 37
20. Fire-Fighting and the People 38

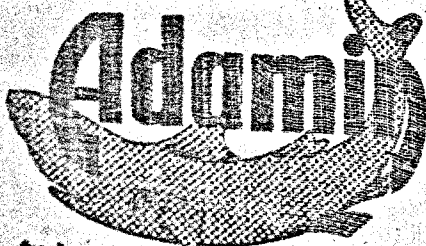


GETTING WELL!

Wasted body-cells have to be built up after an illness or an operation. But the very food-elements without which the body cannot turn the rest of its food into tissues are largely missing from the foodstuffs in the market to-day.

Therefore a convalescent needs extra vitamins in order to put on weight again. It's important, too, to have the natural defence against sepsis after an operation or infections like pneumonia, which only Vitamin A can give.

Just a few drops of Adamin with every meal makes sure of a complete supply of Vitamins A & D. Adamin cannot affect the most delicate digestion and you can hardly taste it in milk or fruit juice.



VITAMIN A: promotes growth and rebuilding; prevents colds, measles, chicken-pox, mumps, etc. and infections from cuts and scratches.

VITAMIN D: prevents rickets and is essential to the growth and maintenance of solid bones and sound teeth.

Fresh concentrate of Shark Liver Oil

M.G.B. SHARK LIVER OIL
If you are used to Cod Liver Oil, or if you cannot afford Adamin, M.G.B. Shark Liver Oil gives the same full Vitamin A & D ration, plus pure vegetable oils to increase your fat intake. Cost: Ad. 1 per day

Made by
GOVERNMENT OIL FACTORY
CALICUT
Department of Industries & Commerce
GOVERNMENT OF MADRAS
Distributors for South India
PARRY & CO. LTD., MADRAS.
SISTA'S-60-4.

PROGRAMMES

3

MADRAS INFORMATION

Government and Industry

Chief Minister Reviews Role of Administration in Business Life

Madras is predominantly an agricultural State. For generations the people of this State have lived on the bounty of our monsoons. We have but few mineral resources such as iron and coal, with which to build up heavy industries for the sustenance of our teeming millions. Any appreciable improvement in our standard of life must, therefore, come from further efforts to exploit our limited water resources. The Government of this State have fully appreciated this basic fact and have endeavoured to implement a modest programme of development in this direction. Industrial users of electricity are already familiar with the South Indian power grid consisting of Pykara, Papanasam and Mettur Hydro-electric Stations. Recently we acquired the huge thermal plant of Madras owned by the British firm and linked it up to the Hydro-electric Grid. The power situation in the City was very acute at that time, but new generators for 5,000 K.Ws. were installed and the supply augmented to meet the essential requirements of the City.

A post-war programme of power development has been under execution during the past few years and the first fruits are just coming in. We had this programme reviewed in the light of the recent power crises, and according to present anticipations, substantial blocks of power are expected to be released for industrial and agricultural use in this State—

- 5,000 K.Ws. at Madras already released in 1948.
- 4,000 K.Ws. at Ceded Districts already released in January 1950.
- 5,000 K.Ws. at Nellore in August 1950.
- 1,500 K.Ws. at Vijayawada and Visakhapatnam in August 1950.
- 4,000 K.Ws. at Madhurai in January 1951.
- 10,000 K.Ws. at Visakhapatnam and Vijayawada in June 1951.
- 15,000 K.Ws. at Madras in August 1951.
- 13,000 K.Ws. at Moyar in December 1951.
- 10,000 K.Ws. at Madhurai in June 1951.
- 13,000 K.Ws. at Moyar in December 1952.
- 50,000 K.Ws. at Machkund in January 1953.
- 15,000 K.Ws. at Madras in August 1953.
- 26,000 K.Ws. at Pykara in December 1953.
- 35,000 K.Ws. at Tungabhadra in June 1954.

Thus about 200,000 K.Ws. of power will be released in the next three or four years through Governmental efforts, and thereby the power generation of the State will be doubled.

Irrigation Development

Our post-war irrigation development programme is also making rapid progress. The two major items in this programme are the Tungabhadra multi-purpose project and the Lower Bhavani irrigation project. It is indeed a fortunate coincidence that the districts to be served by these two new projects are our best cotton producing areas. We have, no doubt, started these works

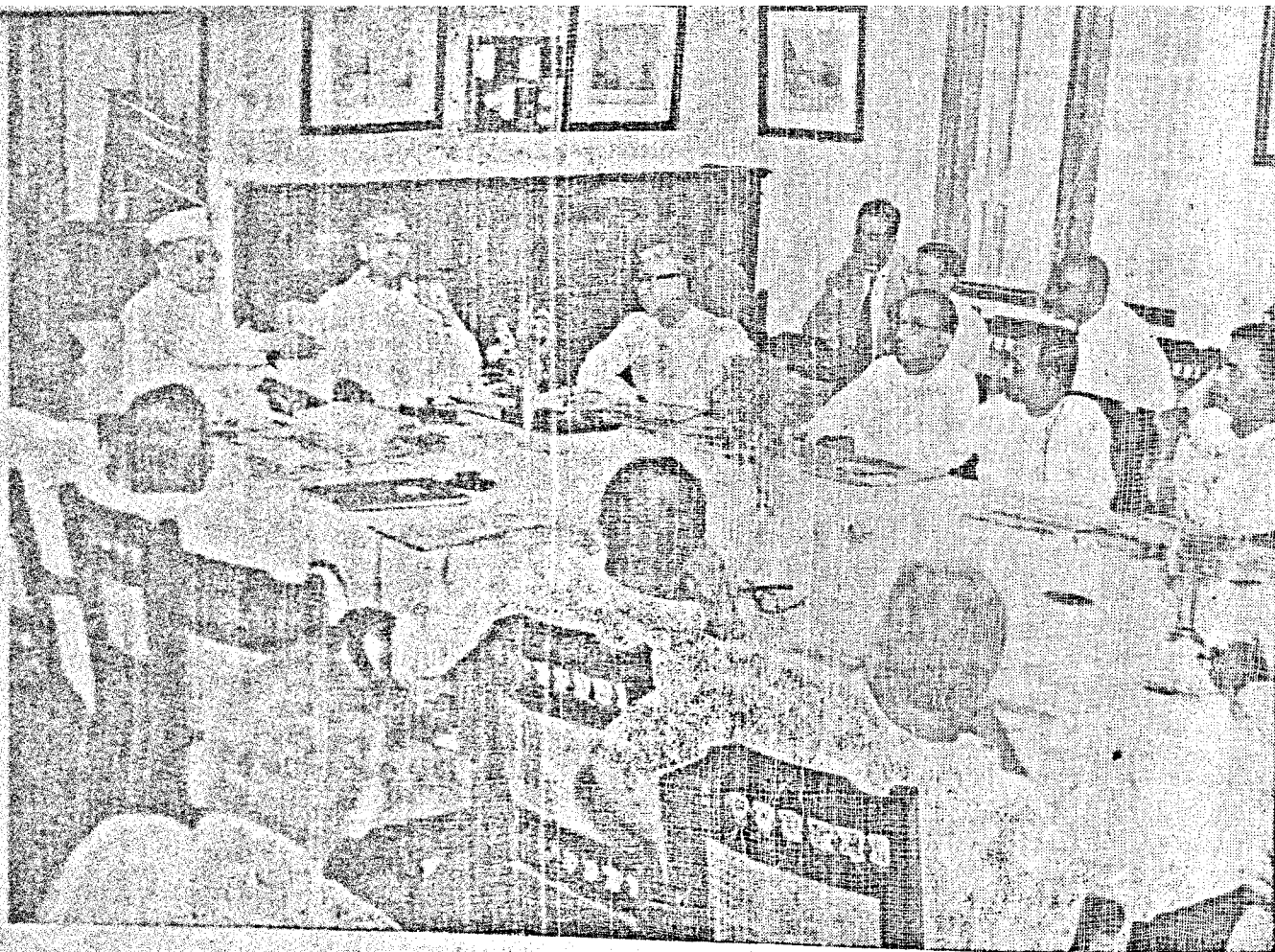
primarily for solving our food problem, a running sore in the economy of our country. But if the improvement which we are now noticing in the internal situation of Burma continues, and if imports of rice from that country can be resumed on an economic basis, there is no good reason why we should not lay greater emphasis on raising cotton in these areas, which are particularly suited for that crop. The Tungabhadra Project can bring under irrigation by 1953 about 300,000 acres of cotton country. The Lower Bhavani Project can irrigate about 200,000 acres of almost similar land, by about the same time. Even assuming that our food scarcity continues, considerable extents of this newly reclaimed land will have to be under cotton in the usual rotation of crops. Our textile industry should not, therefore, despair that any further expansion in that vital industry is sadly limited by the acute shortage of the raw material.

The irrigation and the electricity programmes are estimated to cost about Rs. 65 crores. Up to the end of the last financial year we have invested about Rs. 25 crores and we have planned to invest about Rs. 12 crores more this year on this programme. No doubt we have our financial difficulties, in common with other States and the Centre, but by the co-operation of the people of this State, we still hope to complete this programme in good time. Let us not underrate the significance of what has been done, though it may be little, when compared with what was hoped for. Perhaps our blueprints on Ramapadasagar and other mighty schemes may have to rest awhile in our archives; but that does not mean that what is now materialising is comparatively insignificant and, therefore, let us not talk disparagingly of it.

References to Government interference in industry and the alleged threat of its extinction by nationalisation, seem

A trophy was presented by Sri P. S. Kumaraswami Raja, Chief Minister, to Sri K. B. Nagabhushnam, Producer of "Navajeevanam" which was chosen as the best Tamil film of 1949.





Sri K. M. Menon, India's Minister of Food, emphasizes a point at a meeting attended by the Chief Minister, other Ministers of the Madras Cabinet and officials of the Madras Government

to call for a few remarks. Only a few industries like textiles, skins and hides and cement have made some little progress in this State. I am not aware of any statement, by people in charge of the administration of this State or for that matter, of the Government of India, which can give room for a genuine apprehension that all industries are likely to be nationalised. I am not denying that there had been some wild talk of that kind; but we have it on the authority of our national leaders that such talks are impracticable at the present time. We have got to build up our industries and that being the immediate task, it is certainly idle speculation to talk of nationalisation, at any rate by the present generation. I am not aware of any State in India having attempted nationalisation of industries, other than certain essential public utilities, and it is certainly not the intention of the present Government of this State to encroach on the legitimate domain of industry.

On the other hand, this Government is only too anxious to go to the aid of industry and in spite of financial difficulties, substantial sums have been set apart by us for loans to industrialists in need of help. We have advanced Rs. 25 lakhs as State aid to various small industries last year and larger provision has been made in the current year's budget. The Industrial Finance Corporation was recently constituted with a share capital of Rs. 2 crores and in this Government have taken up 51 per cent of the share. It was the hope of the Government that industrialists would have willingly taken up the balance of

shares and run the concern on model lines; but their response has been disappointing. The capital subscribed by industry up-to-date has only been Rs. 3.89 lakhs, which does not seem to be in harmony with the sentiment expressed that there must be greater co-operation between businessmen and the Government. If adequate support would not be forthcoming, there is not much purpose in having constituted a Corporation, because the limited aid which the Government can afford to give, could have been administered through the machinery already in existence for State aid to industries. The share capital expected from industry is less than rupees one crore.

Labour Legislation

With regard to the various labour legislations of the recent past, it has been pointed out that while endeavour was being made by industrialists and the Government to ameliorate the conditions of labour, the response from labour has hitherto been halting and unsatisfactory. This is indeed very unfortunate, but let us hope that this is only a temporary phase in the human upheaval that is now taking place in this country. Accustomed as we are to a fairly settled order of things during the best part of our lives, we are often unable to visualise in their proper perspective, the vast changes that are taking place around us. After a hard-fought struggle, we have at last won our political freedom. The Britisher had set up a strong administration in this country, manned by competent civil servants. Even though Britain was herself gradually

PROGRAMMES

changing over, in recent times, from her Gladstonian economy to the Socialist conception of the Welfare State. That change had not made itself felt in this country, which she had administered. This was very largely because the civil servants whom she had sent down to govern this country were recruited, almost exclusively, from classes which adhered to the older school of thought.

The power which was wielded by those able men with an iron hand has now passed on to this country. For the moment we see that power in the hands of our national leaders, but is that the final resting place of that power? Under the new Constitution, that power vests in the people, and our national leaders will be allowed to wield it, only as long as they command the confidence of the people. It is just wishful thinking to feel and talk as though there is nothing more for our national leaders to do now, except to administer the country in the way the Britisher had done. The leaders had no doubt helped us to organise and shake off the foreigner, but they have found a new master in the common man, who has already started asserting his rights and will give expression to them in unmistakable terms at the next elections.

If the mighty Princes have since given up their hereditary domains, it was not due to any black magic practised by the Sardar, but only in deference to the wishes of this new-found heir to the Imperial power. If the Zamindars are now disappearing from our State, it is not due to the cussedness of this Government but because they were unable to justify their existence before the common man. If industrialists are still surviving after the initial shock, it is certainly not due to any special protection given to them under the Constitution, but because they seem to be still serving a useful purpose in the economy of the country, which fact the common man is not slow to comprehend.

Square Deal for Common Man

I am a firm believer in the fundamental good sense of the common man of this country. We are a tolerant race, long accustomed to religious, social and economic disparities. After the first flush of power, the common man will soon reflect and discover that a country which is woefully backward in the industrial field, does need industrial enterprise and guidance to place her economy on a stable footing and that it is in his own interest to put in his best into the common endeavour. That he has already begun to reflect on those lines, seems to be indicated from the fact that only 4.7 lakhs of men-days were lost in strikes in 1949, as against 23.6 lakhs of men-days lost in 1948 and 20 lakhs of men-days lost in 1947. I am not yet aware that he is evincing an undue anxiety towards State Socialism. All that he is struggling for is a square deal from his employer, and the labour legislation is only a manifestation of that urge.

The naked truth is that adult franchise and wide disparities in standards of life do not harmonise. Occasionally we find a tendency in this country for people of wealth and standing, to celebrate social events with a pomp and opulence which seem to out-rival the fables of the Arabian Nights. The vast sums spent on such celebrations were indeed earned in good faith in promoting useful industries or trade, and there is no law against such spending. They do so with the natural human desire to score social distinctions, but people who seek such satisfaction do not seem to



H.E. the Governor of Madras plants a sapling at Stonehouse Hill, Ootacamund

reflect on their reactions on the common man, who has newly come into power. The common man wonders how industrialists who can afford such lavish spending, can complain of paucity of capital for productive enterprises, which alone can improve the standard of life of the starving masses. He draws his own inferences, whether unfettered private enterprise, which can give room to such manifestations, is an unmixed blessing. Let us by all means endeavour to preserve the profit motive, which alone can keep alive private enterprise; but let the fortunate few, who are successful in this process, avoid provoking the common man by needless ostentation.

Prohibition Policy

References have been made to the ideological and unrealistic schemes launched by certain States, which have resulted in excessive drain on their resources with consequent heavy taxation on trade. As regards the prohibition policy of the Madras Government, there are two aspects to this vexed question. The first is whether prohibition is really good for the nation. To get a correct answer to

NEWS AND NOTES

Bee-Keeping has a Good Future

The importance of agriculturists taking to subsidiary occupations in order to fill up their leisure periods has been stressed by Indian economists as well as writers on rural welfare. A number of subsidiary Industries are mentioned in this connection. Of course, spinning and weaving comes first. Bee-keeping is another. Efforts are being made in different parts of this country to stimulate this industry. Recently there was the Bee-keepers' Conference at Bombay. In that Conference, the Rural Development Minister of Bombay emphasized the special merits of the Bee-keeping industry. He said, "We have a large rural population which is either unemployed or under-employed for a considerable period of the year. Our problem, therefore, is fundamentally different from that which faces the advanced industrial countries of the West. The immediate task before us is to provide subsidiary sources of income to the villagers. In order to do this, we have to make the right selection of the types of subsidiary occupations suited to local conditions and to organize them on systematic and efficient lines, so as to produce the best quality at the lowest possible price. Only then we can add to the villagers' income and also make a real contribution to the total wealth of the country. Unless this is done, the poverty in which our population is steeped to-day cannot be corrected to any appreciable extent. Programmes of large-scale industrialization naturally take a very long time to mature and require heavy capital investment, not always within the reach of a poor country."

"There are various regions in this country, especially those abounding in forests, where we have a very favourable environment for the bee-keeping industry. The training

required by the villager for the purpose is fairly simple and can, therefore, be arranged without much cost. There is no large capital investment required and whatever equipment is necessary is not only cheap but can also be made locally available. It should not, therefore, be difficult to train and equip a villager for the performance of this work. Fortunately, bee-keeping is an industry in which constant attendance is not necessary and it can, therefore, be usefully combined with another main occupation like agriculture or horticulture. The services of other family members can also be utilized and altogether a substantial addition can, therefore, be made to the resources of the family as a whole.

"Besides these advantages there is one more important factor. Honey is used in Western countries as an item of very rich and agreeable food; and if, therefore, pure and genuine honey becomes available here, the westernized rich people in this country would appreciate such an article on their breakfast and tea tables. There is also the possibility of export to foreign countries. But apart from these attractions, there is a local one in Bharat itself. Honey possesses great medicinal properties and is, therefore, very much used in our indigenous medical systems and with the encouragement of these systems this sort of use of honey is bound to go up considerably.

"The initial problems of organizing this industry relate mainly to providing training to the villager, assisting him in obtaining the necessary equipment, and arranging for supervision and technical assistance in certain cases. These can, I think, best be tackled on co-operative lines so as to inculcate the spirit of self-help."

Intensive Cultivation

With a view to popularize phosphatic fertilizers, Government decided to distribute at all agricultural depots in the State, phosphatic manures at subsidized rates. The scheme took effect from 15th August 1949. The scheme was discontinued from 5th November 1949, as the Government of India had intimated their decision to stop the central share of the subsidy on account of financial stringency. This Government however made special representations to the Government of India, and as a result, the Government of India have agreed to the continuance of the subsidized sale of phosphatic manures in this State. This scheme will therefore be revived. Under the scheme, it is proposed to distribute about 10,000 tons of granulated ammonium sulphate, 30,000 tons of super-phosphate, 8,000 tons of bonemeal and 61 tons of ammonium phosphate during the fertilizer year 1949-50. The total revised cost of the scheme is 144.16 lakhs of rupees.

The application of the phosphatic manures to the soil has a toning and revitalizing influence on the yield of crops, particularly paddy. The availability of these valuable fertilizers at half the normal cost is an opportunity to all ryots and agriculturists, to increase production of foodgrains.

I am a learner myself, I have no axe to grind, and wherever I see a truth, I take it up and try to act up to it.

MAHATMAJI.

NEWS AND NOTES

+ Uplift Work Among Todas

The Todas are a backward class in the Nilgiris. In a previous issue of this Journal, some random glimpses were given of the ameliorative work that is being done among them by the Co-operative staff and others. This work is being continued.

Recently a Toda cattle show was conducted under the auspices of the Co-operative Milk Supply Society. The Collector of the Nilgiris, and the representatives of various departments were present. After the inspection of the Toda buffaloes a meeting was organized and the

Collector presided. Prizes were distributed for the best buffaloes. There was a running race of the Todas young and old on that occasion. The various steps taken by the co-operative department to help Todas in the organization of a Toda Land Colonization Co-operative Society were explained. It was also explained how the Co-operative department was able to help the Todas considerably. The special facilities afforded by the Milk Supply Co-operative Society at Ootacamund for the Todas were also explained.

Voluntary Efforts

The extent to which voluntary and combined effort on the part of villagers, through the efforts of a Gramasangham, can benefit the rural folk, has been demonstrated by the Amayapuram Gramasangham in the Manapparai sub-taluk of the Tiruchirappalli district. Amayapuram is a village about six miles west of Manapparai Railway station. Till recently, this village, as also numerous others situated further west up to a distance of about 15 miles from Manapparai had absolutely no transport facilities at all; with the result that all the villagers had either to walk the whole distance or take very circuitous routes. There were only footpaths along which the villagers had to carry their goods to the road.

The Amayapuram Gramasangham with commendable zeal and enthusiasm took up the idea of laying a road through this tract. First they commenced the work within the limits of that village. The procedure adopted was that all those through whose patta lands the road was to pass were persuaded voluntarily to cede the required extent for the purpose, and they readily agreed. Similarly suitable portions of poramboke lands, lying enroute were also made use of. As regards the actual road making, a system was devised under which the length of the road to be laid from one hamlet to another was divided equally between the number of families in a hamlet each being allotted a stipulated length to be cut up and laid with mud. The result was that a fairly good mud road, extending to about 15 miles has been laid solely by the efforts of all the villagers put together, the landed persons contributing land and everyone contributing labour. A visit to the road will convince anyone of the enormous effort put forth. In parts it was full of rocks, which had to be blasted and broken; while for a fairly long stretch, adjoining a hill, the entire area was full of slippery pebbles of various sizes on which one could neither walk nor take any vehicle. At present the entire length of the road has been rendered fit for carts to go and all that remains

to be done is to have it taken up by the District Board, get metalled and culverts put up at about ten places where hill streams cut the road. Even as it is, the road is now being made use of as a highway by inhabitants of seven revenue villages involving some 18 hamlets lying on the road proper and a similar number within easy reach of it, on either side. Country carts take commodities to and from Manapparai quickly and easily and boys from interior villages are able to go to the school at Manapparai daily.

This is an attempt typically Gandhian in its conception and execution; and aptly enough, the road has been named "The Mahatma Gandhi Road."

It is significant to note that the road, on a rough estimate was expected to cost Rs. 25,000, taking the making charges alone into account; and another sum of Rs. 7,500 was expected to be required to put up culverts. But the work has been done at a very negligible cost, as compared to the estimate.

Armed Forces Academy

An examination for admission to the Inter-Services Wing of the Armed Forces Academy for the course commencing in July 1950 will be held by the Union Public Service Commission at Allahabad, Bombay, Calcutta, Delhi, Madras and Nagpur in March 1950. The exact dates of the examination will be announced later. Copies of application forms and other connected papers may be obtained from the Secretary, Union Public Service Commission, Council House, Post Box No. 186, New Delhi or from Headquarters, Sub-Area, Madras, and Air Force Recruiting Officer, Madras.

this question, it is not enough we make enquiries from our office desks. We have to go right down to the villages and factory areas and ascertain facts from the wives and children of ex-adicts. Don't for a moment think that we introduced prohibition against the public will. None of us in the Ministry would have been able to hold our seats even for a day, if we had introduced prohibition by flouting public opinion. It is no doubt true that prohibition laws are infringed by certain people in certain villages, but which law is not so infringed occasionally? The number of cases detected does not just reflect the prevalence of the crime, but it also reflects the vigilance of the enforcement staff. It was not the hope of the Government that prohibition would be cent per cent successful. The Government would be quite satisfied if it is just 75 per cent successful, because it is bound to be even more successful with the coming generation.

The second aspect of prohibition which seems to be of greater concern is the loss of revenue. It is true that we have foregone a revenue of Rs. 17 crores, but we should reflect for a moment what classes of people were bearing this enormous tax burden. In any civilised State, the structure of taxation should be so arranged that its weight falls on shoulders which can bear it. Why should 10 per cent of the people, who come from the lowest strata, bear the cost of amenities provided for the benefit of all? Why should not this burden be spread over evenly on the entire population? This is precisely what we have done. The revenue lost on prohibition has been made good by us by the simple expedient of spreading it over on the entire population in the form of commercial taxes. We did not have to raid our reserves or ask for a subsidy from the Centre to make good the deficit. Quite apart from the merits or demerits of prohibition in the abstract, there is really no convincing argument against the spreading over of this regressive tax from the few unfortunates, who perished in the process of paying it, to the large mass of the population. I fail to see why the implementation of an elementary principle of taxation should be called a bad name and shot.

Rural Reconstruction

One other point of State administration about which critics may have some mental reservations is our Firka Development Programme. Perhaps the name we have given it is not inspiring, but in effect, it is no more than an old dish. The amount provided for in this year's budget under this head is about Rs. 28 lakhs of which about Rs. 7½ lakhs have been earmarked for improving rural communications. Rs. 7½ lakhs for providing rural water-supply and aid to certain cottage industries, livestock improvement, electric connections and other ameliorative measures. Under the appalling conditions of our village life, can any body legitimately say that some little money, spent on improving rural water-supply or communications, is being wasted on an unrealistic experiment? How long more must we leave the villager to his present lot, after having

considerable criticism has been levelled against the Intensive Khadi Scheme of the Government which forms part of the Firka Development Programme. A sum of

Rs. 17.3 lakhs has been provided for in the budget, for this purpose. But the khadi produced will fetch its price and therefore credit has been taken in the budget for a receipt of Rs. 10 lakhs under this head. Even the balance of Rs. 7 lakhs is not a loss, because some of the khadi produced is expected to remain as a carryover for the next year. This scheme is intended to provide some kind of employment for the poor villager, during the non-agricultural season, when he would otherwise be wasting himself on his pial. In the initial years, there may perhaps be some little loss under this programme, but as villagers gain skill in spinning, losses will diminish.

Even assuming that in the initial stages there is a loss of the order of Rs. 3 or 4 lakhs per year, will it justify the volume of criticism that is pouring in from different quarters on the unsoundness of this scheme? Is it the case of our critics that the villager has already enough employment or that more useful alternatives should have been tried to keep him engaged? I shall welcome alternative suggestions, but so far I have had only negative criticism. I rather feel that most of these criticisms arise from sources which have been accustomed to ignore the common man and therefore unable to comprehend the writing on the wall.

Revenue and Expenditure

Finally, from a close study of our budget for the year, it will be noticed that we have budgeted for a revenue of Rs. 55.21 crores and an ordinary expenditure of Rs. 55.57 crores, leaving a small deficit of Rs. 36 lakhs. This deficit is by no means considerable, because a few timely rains can wipe it off completely. Over and above this expenditure, which is charged to revenue, we have also budgeted for a capital expenditure of about Rs. 15 crores. About Rs. 12 crores out of this capital expenditure are for the irrigation and electricity programme and the balance mainly for certain building schemes. Provision has also been made for takkavi loans and for aid to industrialists, co-operative societies and local bodies. Modern States endeavour to meet capital expenditure out of borrowed funds, because the benefits of such expenditure are not exhausted by the generation which incurs it, but will pass down to its successors. The bulk of this expenditure is on self-financing enterprises which earn a return, equivalent to the interest charges. In order to meet the capital expenditure programmed for the year, we have reserves with us to the extent of about Rs. 40 crores; but these reserves happen to be invested in Government of India securities.

We are now advised, on good authority, that it will be undesirable, under conditions now obtaining in the money market, to unload large blocks of securities into it. Capital is shy in coming out. How then are we to meet the capital expenditure programmed for the year? Our irrigation and electricity works are in an advanced stage of construction and any delay or postponement in their execution will cause considerable wastage of money and effort. With a view to bridge the gap, we have re-examined our budget and have just ordered savings amounting to about Rs. 3 crores. We are hoping that the seasons will be fair this year, in which case we can expect an appreciable betterment of our revenues over budget figures. Even so,

(Continued on page 36)



Sri M. Bhaktavatsalam, Minister for Public Works, inaugurated the Firka Development Scheme for rural reconstruction and welfare in Kooavam (Tiruvellore) recently. Here the Hon'ble Minister is seen distributing prizes to some of the winners in the day's competitive activities.

Kummi (a group dance) by school-girls formed one of the attractions at the inauguration ceremony



Operation Grow More Food

"Operation Grow More Food" launched by the Commander-in-Chief last summer has taken firm root in the Indian Army and most of the regimental centres and permanent military stations have made a good job of it. It was first thought that the operation would be expensive to start with, but in actual practice it has not been so. Provision had been made for initial financial assistance but so far not a single unit has itself availed of it.

Hard work had to be put in, of course. New plots of land had to be dug up and units had to purchase seeds and manure. But units were able to meet initial expenses from their own funds. At the end of the first season, it has been found that the yield in most cases has amply repaid the initial outlay, and some units have even made a small profit.

Peasant Soldiers Work Hard

The presence of a good number of peasants in the Army, who have been practised tillers themselves, has helped the units to make the "Operation Grow More Food" a success. Although his time is fully occupied with normal training and other duties, the jawan has come forward to take up this work with enthusiasm, even at the sacrifice of his well-earned leisure.

A sample survey of the food production activities of Army units centres, shows that it has become a regular part of the daily routine with units and regiments. The jawans have taken to cultivation in spare time more cheerfully, and with a great deal of zest and a spirit of competition amongst the respective units.

Interesting Hobby

Originally "Operation Grow More Food" was mooted as an emergency measure to enable the Army to give a helping hand to tide over the present food shortage in the country; but as far as the Army is concerned there is every indication that this habit of growing one's own vegetables, flower gardens, orchards and fine avenues of trees has caught the imagination of the soldier. Gardening and tree plantation are interesting hobbies to be pursued in spare time. In the first year so far, no less than 190,000 trees of various kinds have been planted by Army units and formations throughout the country. At many places where climatic conditions are suitable, fruit trees like oranges, mangoes, peaches and plums and pomegranates have been planted in large numbers.

At the Electrical and Mechanical Engineering Centre, Jalahalli, for instance, where the soil is good, over 30 acres of land has been brought under the plough. Nearly 2,000 fruit trees, mainly mangoes, guavas, pomegranates, figs, peaches, apples and papayas have been planted. An additional number of 1,500 trees have also been planted to provide shade on the roadways. During the first seasons, the EME Centre sold vegetables, groundnuts and cereals for over Rs. 17,000. After paying for seeds and other charges the Centre has made a net profit of over Rs. 8,000. Out of this money, the Centre hopes to equip itself with up-to-date implements. Two wells are being

Progress At A Glance

Campaign was started in August 1949.

Land put under cultivation so far	9,000 acres.
Additional land proposed to be cultivated	4,000 acres.
Total quantity harvested including cereals, vegetables and fruits	20,232 maunds.
Number of trees planted up to the end of March 1950	193,176 maunds.
Food voluntarily underdrawn by units up to the end of April	15,517 maunds.

dug. These will be fitted with pumping sets to draw water for cultivation. Col. R. M. Newton-King, Commandant of the E.M.E. Centre, is taking keen interest in promoting food production. Assisted by half a dozen other officers, he has introduced improved methods of farming.

Good Work in Madras

The Madras Engineers Group and the Army Supply Corps Centres have also done good work in "Grow More Food". Each centre has about 14 to 15 acres under food production. The output of the A.S.C. Centre was nearly 50,000 lb. of fresh vegetables during the last season and the Centre made a net profit, excluding expenses, of Rs. 2,400. The Mysore Infantry Regimental Centre at Hebbal near Bangalore has also several schemes for cultivation of paddy, ragi and vegetables. The G.O.C.-in-C., Southern Command, who recently visited this Centre expressed appreciation of the useful work of self-help carried out by the Mysore Infantry and Lancers.

In Avadi, near Madras, various Ordnance and Supply Units have extensive areas under cultivation. Despite drought and acute shortage of water, the Units have been able to raise good quantities of fresh vegetables. The Supply Depot at Avadi was responsible for producing pumpkins, weighing over 70 lb. each. The Madras Defence Battalion which has about ten acres under cultivation, has produced both paddy and vegetables, and the Battalion was able to underdraw a substantial quantity of food from the regular supplies.

Another Travancore Unit has taken over the Island Grounds near Fort St. George, Madras, for growing vegetables and groundnuts. During the last season, a Travancore Battalion, working on a small plot of three acres, earned a profit of over Rs. 3,000.

"Operation Grow More Food" has generated a new spirit of activity in Army Units. There is much enthusiasm among Army men and also healthy competition. From experience it has been realised that this is profitable too. Pursued on unit basis, farming with the object of producing one's own vegetables and fruits has become a normal feature in the Army.

Through out India the Indian Army is helping in the Grow More Food campaign by growing cereals and vegetables on all available land. Here jawans are preparing the field for vegetable crops.

High ranking military officers take active interest in helping the campaign. Here Major-General Khanolkar is ploughing the field. To the left, Major-General Kharolkar is seen inspecting the machine.

Sowing the seed

A soldier picking vegetables grown by the jawans. In the background is the Bajra crop.

A prosperous Bajra crop in the fields of Delhi Cantonment

Food Offences And Punishments Awarded

FORTNIGHT ENDING 30th APRIL 1950

During the fortnight ending 30th April 1950, 435 cases of prosecutions were disposed of in Madras State. Particulars of cases in which heavy punishments were awarded in the districts are described below :—

Nellore District.—(i) B. Venkatasubbiah was fined Rs. 500, or in default to suffer R.I. for six months for possession and storage of rice in excess of 15 maunds without licence.

(ii) C. Subbiah was fined Rs. 500, in default to undergo R.I. for three months for possession of rice and paddy for sale without licence.

(iii) M. Papiah was sentenced to pay a fine of Rs. 300, or in default to suffer R.I. for six months for purchase and sale of paddy without licence.

West Godavari District.—Jangam Kotilingam, Merchant, Eluru, who sold rice in wholesale quantities without authorisation was fined Rs. 500, in default to undergo R.I. for two months.

Salem District.—(i) Palani Gounden was fined Rs. 200, in default to suffer R.I. for two months, for illicit import of foodgrains.

(ii) Raja Mudali, son of Abbu Mudali, petty shop-keeper, Krishnagiri, was sentenced to pay a fine of Rs. 200 with one month R.I. in default for unauthorised sale of foodgrains.

(iii) Doraisamy Naidu, son of Pappi Naidu, hotel-keeper, K. Patnam, Krishnagiri Taluk, was fined Rs. 200, in default, to suffer R.I. for one month, for unauthorised purchase of paddy.

(iv) Mangammal, daughter of Krishnappa Chetty, coolie; Appaya Chetty, son of Muniappa Chetty, weaver; Muniappa Chetty, son of Kolandaiappa Chetty, coolie; Pallaya Chetty, weaver, and Arunugam, son of Marasami Mudali, weaver, Krishnagiri; were each fined Rs. 200 with one month R.I. in default for unauthorised attempted sale of foodgrains.

(v) Parthasarathi Chetty, son of Pachappa Chetty, coolie, Krishnagiri, was fined Rs. 300, in default R.I. for six weeks, for unauthorised attempted sale of foodgrains.

Ramanathapuram District.—Ramasami Servai, Aruppukottai, was fined Rs. 250 for illicit import of foodgrains.

Cuddapah District.—Sheik Ali Sahib who was in possession of 40 bags of cholam without licence was fined Rs. 200 with two months R.I. in default.

FORTNIGHT ENDING 15th MAY 1950

During the fortnight ending 15th May 1950, 373 cases of prosecutions were disposed of. Particulars of cases in which heavy punishments were awarded in the districts are described below :—

Madurai District.—(i) Vella, wife of Velayudhan, Thenkurissi amsam, was fined Rs. 500, in default to suffer R.I. for six months, for possession of 105 paras of paddy without licence.

(ii) Kanbi, son of Pondirothil Velappan, Thenkurissi amsam, who was in possession of 70 paras of paddy without licence, was fined Rs. 350 with six months R.I. in default.

(iii) Chinappa Rowther, son of Kader Ismail, and Muthalamada Kalichetty, son of Meenakshy, M. Madh, coolies, were convicted and sentenced to pay a fine of Rs. 200 each, in default to undergo R.I. for four months.

Salem District.—Ramasami Mudaliar, weaver, who was drawing rations in the cards of others and was in possession of ration cards of others, was sentenced to undergo imprisonment till the rising of the court and to pay a fine of Rs. 500 and in default to suffer R.I. for 2½ months for the offence under each clause.

Flanthapattanam District.—(i) Arilgi, Akmella, Sriakulam Taluk, was convicted to undergo imprisonment till the rising of the court and to pay a fine of Rs. 200, in default to undergo S.I. for three months for illicit transport of 1½ bags of ragi through a rationed area without permit.

(ii) Gudirada, Saranarayana, Velampolu, Visakhapatnam town, was fined Rs. 300, in default to undergo S.I. for three months for illicit purchase and sale of foodgrains.

Tiruchirappalli District.—(i) Periasamy Goundar was sentenced to pay a fine of Rs. 500 and to undergo R.I. for six months for illicit transport of rice.

(ii) Periasamy Nader who was in possession of unaccounted stock of rice was sentenced to undergo S.I. for three months and to pay a fine of Rs. 500 with three months S.I. in default.

Godavari District.—C. M. Ramaswamy Gounden was sentenced to undergo S.I. till the rising of the court and was also fined Rs. 250 for illicit hulling of paddy.

Schemes Sanctioned in May

During May 1950 the Government sanctioned the following schemes :—

South Arcot District.—Provision of irrigation facilities to a block of 351 acres in Ponnathittu village, Chidambaram Taluk, South Arcot District, by improving and extending the Manambady Channel taking off on the right side of the Khan Sahib Canal, at an estimated cost of Rs. 65,054. Out of the 351 acres, 176 acres will be irrigable by direct flow and the remaining 175 acres will have to be irrigated by baling. The scheme will result in an additional food production of about 175 tons of rice.

Tanjore District.—The provision of better drainage facilities to Kudithangicheri, Sevalkaran, Ramapuram, Kailasanathankoil and Kilamadapuram villages of Mannargudi Taluk, Tanjore District, at an estimated cost of Rs. 1,23,810. The scheme is to improve drainage facilities for 1,463 acres as a result of which an additional yield of about 230 tons of paddy is expected.

The provision of a supplemental source of supply to Pudumanniar from the Cauvery in Shiyali Taluk of Tanjore District. The present supply in Pudumanniar is insufficient and inadequate for the existing ayacut and this scheme is intended to remedy this defect. The scheme is estimated to cost Rs. 1,69,140. Besides ensuring adequate supply to the existing cultivation in the ayacut, the scheme will facilitate the cultivation of an additional extent of about 2,000 acres of second crop. The anticipated additional yield of foodgrains from the scheme is 500 tons of rice.

A scheme for the extension of the Olavayol Channel a branch of the Grand Anicut Canal, for irrigating an extent of 2,300 acres in Pudukkottai division of Tiruchirappalli District and 4,000 acres in Pattukottai Taluk of Tanjore District at an estimated cost of Rs. 10,41,510. The additional food production is at an estimated cost of Rs. 10,41,510. The additional food production anticipated from the scheme is about 2,640 tons of rice.

East Godavari District.—The provision of a separate source to Vadaparru Channel in Amalapuram Taluk, from Bank Canal is at an estimated cost of Rs. 71,624. The scheme is intended to provide better irrigation facilities to an existing irrigation of 2,927 acres under the channel and to bring under cultivation a fresh extent of 125 acres of dry land. The additional annual yield of foodgrains is estimated at about 1,239 tons of rice.

The taking over under the P.W. Department control the private *bothi* from temporary pipe at M. 2-0-570 R of Surasaniyanam Channel in Amalapuram Taluk and converting it into a side channel at a cost of Rs. 10,925 for providing better irrigation facilities of 202 acres now under cultivation, and to bring under cultivation 200 acres of land. The additional annual yield of foodgrains is estimated at 404 tons of rice.

West Godavari District.—The provision of irrigation facilities to 569 acres of certain waste lands (Block 2) in

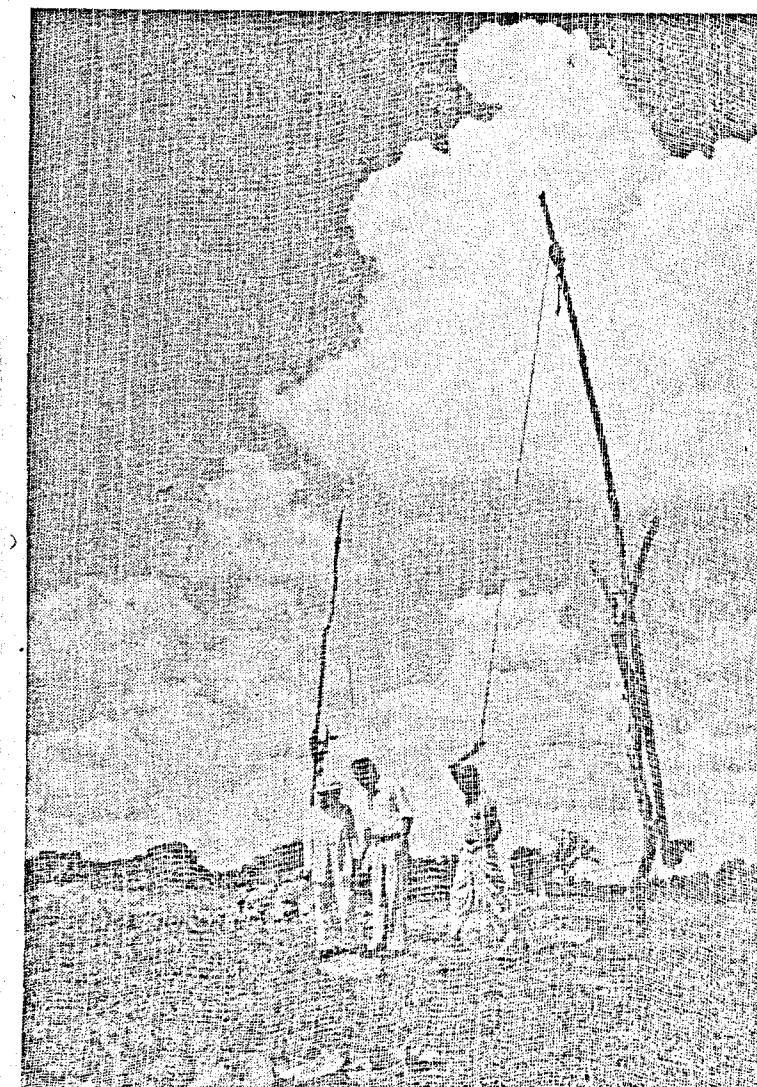
L.B. Cherla and Lakshmaneswaram villages, Narasapur Taluk, West Godavari District, by improving and extending the Ramanapalem Channel, and by forming a protective bund around the ayacut, at an estimated cost of Rs. 55,654. The additional annual yield of foodgrains expected as a result of the execution of the scheme is estimated at 167 tons of rice.

The provision of irrigation facilities to an existing dry irrigation of 245 acres and to bring under wet cultivation.

Delhi Experiment

The scheme aiming to secure an economic betterment of the rural population in certain villages round about Delhi was inaugurated in April, 1948, by the Indian Council of Agricultural Research and the Delhi Administration. It extends over 14,000 acres of cultivated area covering ten villages, irrigated by the Western Jamuna Canal. Bowana, a small village on the Delhi-Meerut Road, 22 miles from New Delhi, is the centre of activity of this pioneer experiment in rural uplift launched by the above bodies.

A simple method of drawing water without the help of bullocks. Subsoil water is near the surface here, making such operations easy.



730 acres of lands not being cultivated at present in Komarad, Arnacodern and Losarigutlapadu villages, Bhimavaram Taluk, West Godavari District, by improving the existing Arnacodern channel of Undi Canal and by providing two branch channels from it and by also providing a protective bund around the block with automatic outfall sluices for letting out the excess drainages. The work is estimated to cost Rs. 94,042 and the additional annual production of foodgrains is estimated at 488 tons of rice.

The provision of a supplementary source of supply to Belangi channel, in Godavari Western Delta, from Gostanadi and Velpur Canal through the Mamuduru Channel after effecting necessary improvements to it at an estimated cost of Rs. 33,828. It is expected that as a result of the provision of the supplementary source, better irrigation facilities would be provided to the ayacut under the channel, that the yield on the 1,500 acres thrown open for second crop cultivation every year will be improved and that an additional area of 110 acres in the villages of Magallu, Godacodern and Garaganarri will be brought under wet cultivation. The additional annual yield of foodgrains expected is estimated at 380 tons of rice.

Krishna District.—A scheme to extend the East Channel No. 16 and to carry out improvements to "East Channel direct" in Divi Taluk at an estimated cost of Rs. 55,450. An extent of 568 acres of waste land in the Hamsala Divi Block will be brought under cultivation. The Grow More Food value of the scheme will be 284 tons of rice per annum.

Gudur District.—The construction of a tank across the Puliguntaragu near Rajupalem, Narasaraopet Taluk, at an estimated cost of Rs. 1,05,850. The tank will be designed to irrigate the first 100 acres out of the extent of 216 acres of commandable waste land under this project. The ayacut can be extended in due course if sufficient supply is found. The additional annual yield of foodgrains as a result of the scheme is estimated at 50 tons of rice in the first instance.

Nellore District.—The scheme for fitting falling shutters to the Kota Aricut across the Tsallakalva and for the improvements to the Pentakalva in Gudur Taluk at an estimated cost of Rs. 68,097. An extent of 340 acres of land will be brought under cultivation and an extent of 356 acres of existing tiruvasthi lands will be 264 tons of rice per annum.

South Kanara District.—The restoration of the Ramanahra Dam across the Nape Channel, a tributary to the Kaveri River, in Kavaragudi Taluk at an estimated cost of Rs. 32,043. The dam is intended to protect low-lying

Army canals irrigating their fields from a well

Surrender Bogus Ration Cards

It has been repeatedly brought to the notice of the Commissioner of Civil Supplies, Madras, that being afraid of prosecution, people are not coming forward to make reductions on ration cards for persons who are not existing, either dead or left the area and that if an assurance is given by the Government that no prosecution will be launched if the reductions are applied within a prescribed time, they would normally be prepared to get the number of persons in their cards reduced by admitting their acts of omission and commission.

The Commissioner of Civil Supplies, Madras, therefore assures that no action will be taken against those who between 1st July and 31st August 1950, voluntarily surrender bogus ration cards which are with them or apply for reductions on their cards for the persons who are dead, or do not exist or have left the rationed area. Vigorous measures will be taken after 1st September 1950 on cases of any violation of Rationing Rules and Regulations. To avoid the criminal action which will be taken regarding such violations, the general public is requested to avail this opportunity and surrender all bogus cards at once.

fields covering about 110 acres in Chervattur and Kharian-gote villages from the influx of salt water during the second crop period. The scheme is expected to result in an additional production of 28 tons of rice.

The scheme for increasing the storage capacity of the Herokere tank in Gondapur Taluk by raising its full tank level by three feet and also by effecting necessary improvements to it such as providing a sluice and adequate surplus arrangements so as to ensure adequate supply to the existing ayacut in all years and also to a second crop area to the maximum extent possible. The scheme is estimated to cost Rs. 55,946 and would, as reported by the Collector, result in an additional production of about 80 tons of rice.

The detailed investigation of the scheme for the construction of a reservoir across Bijur stream in Coondapoor Taluk of South Kanara District. The scheme is estimated to cost Rs. 50 lakhs approximately and to irrigate about 2,500 acres of second and third crops in the villages of Kalthode, Bijur, Uppundar, Nandanavana and also to supply water for seed beds in May for first crop before the setting in of the south-west monsoon.

Tirunelveli District.—The improvements to the Sadayavari taluk supply channel in Tiruchendur Taluk under the Tank Improvement Scheme at an estimated cost of Rs. 50,742. There will be no additional revenue to Government from the scheme but there will be a saving in remission. By the execution of the scheme, it is expected that annual loss incurred on the wet and dry lands due to stagnation of flood waters will be prevented and roughly 429 tons of paddy and 62 tons of millets will be produced annually on these lands which will otherwise remain submerged.

Developing Cottage Industries Through Co-ops

India is a land of villages and her cottage industries are as ancient as her civilisation. In the past when the village was a self-sufficient unit, the handicrafts occupied an important place in the social economy of the country, while the art-craft displayed the country's cultural civilisation. But gradually, on account of influence of various reasons and with the impact of modern civilisation, the villages become more and more urbanised and their outlook gradually changed. The people no longer looked upon their village industries as their only source of supply for articles of daily use. Even the rich and high class people ceased to extend the same patronage as before to the articles of cultural value. Consequently many of the art-crafts and handicrafts began to languish.

However, during the first World War, cottage industries began to look up. But they could not rehabilitate themselves firmly on account of the economic depression that overtook the country and the industrial expansion that followed later. During the last one or two decades there has been a great change in the world conditions. Many countries tried to emulate Japan and Germany and other countries where small-scale industries had been so developed and perfected as to withstand competition from large-scale industries and formed an integral part of the country's industrial economy. Added to it, the second global war created favourable conditions for the revival of cottage industries. The large-scale industries having been pressed into service for war efforts, could not fully meet the internal needs of the country. There were little imports of the consumers' goods from foreign countries. This afforded an unique opportunity for the development and expansion of cottage industries in the country.

The skilled and unskilled artisans availed themselves of the situation. It also brought home to the leading economists in the country that the reconstruction of the village industries was advantageous to the nation in many respects; that while large-scale industries were liable to be affected badly during war so as to upset the country's economy, the cottage industries could function well in times of war and peace. So the economic groups busied themselves in drawing up plans for the encouragement of small-scale industries. Some of the economists consider that the organisation of cottage industries "is important not merely as a means of affording employment but also of reducing the need for capital, particularly external capital in the early stages." It is also the opinion of some other economists that "the chief objective of national planning in India should be the attainment of self-sufficiency in village communities at least in regard to the consumption goods industries." But opinion is unanimous that the utilitarian and cultural value of the small industries and their place in the social economy depend on their usefulness and the availability of their products at prices within reach of the people. So any attempt to revive, strengthen or develop village industries must be based on these factors if they are to survive.

Art-crafts and Handicrafts

Cottage industries are of two categories, art-craft and handicraft. The art-crafts, such as stone-carving, toy making, glazed pottery, etc., which evoke the admiration

of all by their artistic and skilled workmanship have a cultural value. The handicrafts are of utility value and they may be either main industries functioning in many cases as complementary to large-scale industries or they may be subsidiary industries. Some of the industries are mechanised, while others still continue to be manual. Many of the handicrafts are hereditary occupations coming down from father to son. The following are some of the main industries which are carried on in this State by skilled labourers with or without the aid of machinery: Carpentry, handloom cloth weaving, coir making, cotton-printing industry, glass-bangle industry, mat-weaving, blacksmithy, leather tanning and leather goods manufacture, lace-making, oil-pressing, pottery, silk-weaving, tile and brick-making, slate-making, bamboo and bell-metal work.

These industries provide wholtime occupation to certain communities and are sometimes called communal industries. Except the handloom industry, which is organised to some extent, the others are lacking in organisation and the artisans working these industries are exploited by middlemen and master workers. The latter advance necessary funds and supply raw materials to the artisans for conversion into finished products, pay wages and take over the finished goods for sale.

There is another class of industries which are subsidiary to agriculture such as bee-keeping, cotton-spinning, cattle-rearing, dairy-farming, dried-meat manufacture, fishing

Glass bangle and bead making can be a cheap but profitable industry



and fish-drying, flour-grinding, ghee making, poultry-rearing, rope-making, sheep-breeding and so on. These industries also are not well developed for want of proper guidance and encouragement to those engaged in them. One should not however forget the fact that the cottage industries afford the necessary subsidiary occupation and means to the agriculturists during their off-season and this materialises the manpower in rural parts.

Cottage industries suffer much for want of a proper organisation which can finance the artisans, help them in the procurement of raw materials at favourable rates, provide them technical assistance to improve the quality and finish of their goods, ensure them living wages, market their products to their best advantage. The Royal Commission on Agriculture, the Indian Industrial Commission, and other bodies held the view that co-operative organisations are the best suited for the development of cottage industries. Such organisations, composed as they will be of artisans and workers, can be expected to work for the promotion of the industries and the community-wealth besides serving the public.

Organisation on Co-operative Lines

Attempts at organising cottage industries on co-operative lines were made in Madras State after the passing of the Co-operative Societies Act II of 1912 (India) which contained provision for the promotion of the economic industries of the artisans. At the initial stages these societies confined themselves to affording credit to such of the members as were engaged in cottage industries. Separate organisations composed of workers for production on co-operative

From the potter's wheel these pots and jugs go to the ceramic kiln for baking and glazing



lines were not much in vogue. The first attempts at organising cottage industries on co-operative lines were made when weavers co-operatives were formed in important weaving centres in the State. In 1927 Government ordered the survey of cottage industries in this Province. The Special Officer appointed by the Government conducted the survey and his report was published. Again in 1938-39, Government considered the question of giving an impetus to the development of cottage industries. As a preliminary measure, they established commercial museums at the district headquarters and a Central Industrial Museum at Madras.

The Co-operative Department took some steps for the organisation of co-operative societies for such cottage industries as manufacture of blankets and woollen goods, pottery, mats, coir-goods, toys, brass-vessels, leather goods, bee-keeping and honey-production, button manufacture, etc., which have survival value and for the development of which facilities in the localities were available. To assist the District Co-operative Officers to promote cottage industries, committees called 'District Cottage Industries Committees' have been organised in some districts, under the aegis of the District Central Banks. Another direction in which cottage industrial societies are developed is by giving a reorientation to blacksmithy and carpentry, etc., by organising production-cum-training centres on co-operative lines in the training units run by the Industries Department. Formation of co-operative societies exclusively for women to provide them with work in such homecrafts as sewing, knitting, etc., to enable them to supplement their family income is another striking feature of the co-operative movement.

Village Credit Societies

In addition, co-operative societies are also organised for providing employment to ex-addicts and ex-tappers in such industries as jaggery manufacture, coir-goods manufacture, etc. Wherever separate societies could not be formed for the promotion of industries, the village credit societies have been advised to afford credit and other facilities required by the cottage industrial artisans. To rehabilitate displaced persons from Pakistan, the Government of India are giving vocational training to enable them to take to useful cottage industries. On 30th June 1949 there were 235 cottage industrial societies in the State other than those for weavers and jaggery manufacturers. There were 953 weavers societies.

All the weavers co-operative societies and some of the cottage industrial societies like societies for mat-weaving, basket-making, etc., work on a cottage industry basis. The members take the raw materials, manufacture them into finished goods, return these to the society and receive manufacturing charges. The leather goods societies, the coir-societies, and iron-steel workers' societies, work on a *kharkana* basis. All the members attend to the manufacture in a common place and receive either monthly salary or wages on a piece-work basis. There are others like the *curully* weavers co-operatives where the members themselves procure the raw wool, convert them into goods and sell them to the societies on consignment or outright purchase basis. The ideal system is, of course, to supply

Finance

The cottage industries societies are generally financed by Central Banks. But as these societies are mostly composed of persons of meagre means, the extent of finance made available to them in many cases is not adequate. Government are alive to the inability of such societies to tap funds and they have come forward to help the deserving societies with working capital. Government have also given subsidies to meet the share capital of societies composed of poor members to enable them to raise the necessary funds from Central Banks. Free grants were given in some cases to meet the working expenses, and free services of departmental staff have been lent. Government have since placed at the disposal of the Registrar of Co-operative Societies Rs. 45,600 for grant of subsidies to deserving societies to meet half the cost of equipment or defray their working expenses. The Madras Provincial Co-operative Bank also has generally come forward with financial assistance to these societies.

The Bank sets apart a large sum from its common good fund for grant of subsidies to the societies for their development. For the women's societies, the Provincial Bank has given grants for working expenses and for purchase of sewing machines and almirahs. In some societies the cost of sewing instructors is met. It is maintaining at its cost, leather instructors, coir instructors and ceramic experts to train the members of societies working these industries in improved methods of manufacture. The Provincial Bank deserves all thanks for its generous assistance in fostering the growth and development of cottage industries in this State.

Sari printing with a mechanical sprayer



raw materials to members on their account, accept the finished products and market them. This can work successfully only when members develop a higher sense of responsibility and produce and market them. This can work successfully and produce quality goods. But the inability to own modern equipment, and lack of proper organisation necessitate the working of these societies on a *Kharkana* basis till such time as the members can be expected to work for the industries loyally and faithfully.

Handloom Weaving

Handloom weaving is the largest industry, being the most important of cottage industries in our parts from time immemorial. Handloom weaving has developed to a high degree of workmanship and has had a reputation for its products both within and abroad. The distress of handloom weavers gave rise to their rehabilitation with a co-operative approach to their problems and with generous assistance rendered by Government, weavers societies were formed all over the State. The weavers co-operative societies have made a rapid progress. They have brought into their fold nearly 25 per cent of the looms in the State. Their average monthly production of handloom goods is to the value of Rs. 50 lakhs. They have a strong central organisation in the Madras Handloom Weavers' Provincial Co-operative Society for the procurement of raw materials, marketing of finished products.

There are 29 metal workers societies in this State which produced metal wares to the value of Rs. 12.23 lakhs during 1948-49. The metal workers societies are mostly producing household utensils; societies for leather workers also are doing good work. The Tiruchi Leather Goods Production and Sale Society and the Kumbakonam Arutthathier Leather Workers' Society deserve special mention. In the field of women's societies, the Madras Women's Cottage Industries Society in the City of Madras assists women's societies in the disposal of the garments manufactured by them. A master tailor was appointed to improve the technique of the tailoring of the members of the women societies. The two potters' societies in Tirunelveli District and the Madras Pot Makers' Society have made a mark. The Madras Potters' Society owns a kiln for making glazed wares. The Coir-Workers' Societies at Palayoor and Pavaratty have undertaken all processes of coir manufacture from soaking of husks to the manufacture of coir yarn and coir goods.

Adverse Factors

Past experience has shown that the cottage industrial societies generally suffer on account of the following:

1. Lack of finance and equipment.
2. Non-availability of raw materials at favourable rates.
3. Want of technical assistance to improve the quality and the finish of their goods.
4. High cost of manufacture.
5. Lack of facilities to market the goods.
6. Lack of propaganda.
7. Want of loyalty of artisan-members.

Through the agency of co-operative organisations these difficulties are tackled in the following manner.

Raw Materials

Many of the societies found it impossible to ply the industries as they could not get the raw materials at reasonable rates. During the period of war the metal workers societies could not get brass or copper sheets except at prohibitive cost. Government came to the rescue of these societies and at their instance, these societies got definite quotas of these materials for the use of their members. In the case of mat weavers societies, Government gave them the right to collect korzi grass. Even now, in regard to steel, iron and coke required for the manufacture of agricultural implements and industrial goods, the societies engaged in these industries are given definite quotas by the Joint Director of Agriculture and the Director of Controlled Commodities on the recommendation of the Registrar. Without always depending on outside help, these societies should endeavour to purchase raw materials available from the producer and the whole-sale centres at favourable rates and stock them in large quantities so that the manufacturing costs may be kept as low as possible. The District Central Stores which can command large finance and have built up large resources, are being persuaded to help the societies in the districts in this regard.

Technical Assistance

Want of technical assistance is a great handicap to many of these societies in the manufacture of articles of utility value and of good finish. Some societies are having stocks which cannot be readily marketed as they are not attractive and cheap. The few technical men now employed by the Madras Provincial Co-operative Bank are of course useful in this direction. But they are not enough. More technical men should be made available to them for a continuous period of two or three years to train them in the use of modern equipment to economise costs of production and to improve quality of goods manufactured. It is heartening to note that this aspect of the question is engaging the attention of the Industries Department and schemes for technical assistance to cottage industries are being formulated by them.

Marketing and Advertisement

The next impediment in the development of the cottage industries is on the marketing side. These societies have no separate marketing organisations of their own. Very few societies have any stalls to exhibit and sell their goods. They could however avail themselves of the District Industrial Museums for the purpose. But in most cases these museums are situated far away from the production centres and as such publicity through museums alone is not sufficient. Moreover, every society cannot afford to have a stall of its own as in many cases their volume of business is limited. A common stall for all the societies is badly needed. The District Registrar is being persuaded to help the societies in this direction. One or two societies like the Madras Mat-weavers' Society have taken a stall at the Madras Market and are pushing up the business.

Proper propaganda and want of effective means of communication are other handicaps that impede the progress of these societies. They are not financially strong to spend any money on this account. In many of these

societies the articles produced are comparatively cheaper than the market rates. But the benefit does not reach the consumer. This problem will have to be attended to by the District Cottage Industries Committees.

Enthusiasm.—Lastly, the enthusiasm and interest, on the part of the workers and artisans are not forthcoming to the extent necessary. Perhaps that is because of two reasons, viz., that they have suffered for a long time past without much encouragement and patronage and that they lacked a proper organisation. Now after the attainment of independence, the State is generously coming forward and giving the necessary assistance for the encouragement of indigenous industries and the departments of Government such as Co-operation, Industries, Firka Development and others are actually engaged in the rehabilitation and development of cottage industries among artisans in the land and secure for them the much needed assistance in several directions.

Experts from Japan

Apart from the steps taken by the State Governments for the development and expansion of cottage industries, the Central Government are also taking keen interest in the formation of cottage industries in the country. Recently, they sent two officers to Japan to study the working of the cottage industries there with a view to evolve a plan for the development of cottage industries in India. They are also obtaining the services of a few technical experts from Japan and importing suitable machinery needed for the cottage industries in the country. They are giving vocational training in cottage industries through their training centres. To popularise the cottage industrial products, a Central Industrial Museum has been opened at Delhi and the Indian Embassies in foreign countries have been advised to open cottage industrial sections as an adjunct to their offices. The Central Government have also constituted the All-India Cottage Industries Board to advise and assist State Governments in matters relating to the organisation and development of cottage industries and to co-ordinate the activities of the Provincial and State Governments in this sphere. It is hoped that with the encouragement and help given by the State, cottage industries will establish themselves firmly in the near future and secure their rightful place in the national economy and its self-sufficiency programme.

But above all, what is required on the part of the artisans engaged in this industry is the determination and zeal on their part to help themselves and help the community and solve their problem through a national outlook and a co-operative approach. There are several artisans pursuing different cottage industries and who are confronted with several difficulties such as finance, want of raw materials, lack of marketing facilities. To them our appeal is: "Approach the local Deputy Registrars and seek advice whether they can join as members of the existing co-operative societies in the area or whether a new society can be formed for their exclusive benefit." Co-operative effort is the infallible remedy for the economic uplift of men of ordinary means; thus realise the truth of this saying that man's good lies in all men's good.

(By courtesy, A.I.R., Tiruchirappalli)

Advisory Boards for Cottage Industries

The Government have directed that Advisory Boards be constituted for developing six cottage industries in the respective regions where they are important. These Boards are to be charged with the task of advising the Government regarding the measures to be taken to develop those industries.

Name of Cottage Industry.

Region for which the Board is to function.

1 Match industry	Sivakasi and Sathur area in Ramanathapuram District.
2 Palmyra fibre and leaf products	Tuticorin and Tiruchendur areas in Tirunelveli District.
3 Leather goods manufacture	Dindigul area in Mathurai District.
4 Woollen cumby and blanket weaving	Kudligi, Kudatani, and Bishalli area in Bellary District.
5 Pile carpets	Eluru area in West Godavari District.
6 Handmade cotton lace	Narasapur area in West Godavari District.

The Boards will be composed of the Director of Industries and Commerce, Madras (Ex-officio President), Local Revenue Divisional Officer (who will preside over the meetings of the Board in the absence of the President); Deputy Director of Industries and Commerce (Cottage Industries), Madras (Secretary), a Technical Expert of the Department, Local Deputy Registrar of Co-operative Societies, Local Member of the Legislature and two representatives of the industry.

The function of the Boards will be to advise the Government generally in regard to all measures necessary for developing the industry including (i) Assistance, financial or otherwise to be afforded to deserving artisans in the industry; (ii) improving the quality of the production and standardisation; (iii) increasing the production; (iv) facilities necessary to expand the market for the products of the industry by stimulating exports or otherwise; (v) technological research; and (vi) carrying out a detailed survey and preparation of statistics to the industry.

The Board will meet not less than once in two months and as often as may be necessary at an important centre within the region of the industry.

Cottage Industries Board Reconstituted

The Government of India have decided to reconstitute the Cottage Industries Board. The Board will now consist of the Minister for Industry and Supply as Chairman and 47 other members. The other members will include one representative each of the Ministries of Agriculture, Commerce, Finance (Industry and Commerce Division), Labour and Rehabilitation; two representatives of the Ministry of Industry and Supply (i) Joint Secretary in charge of Cottage Industries; (ii) Deputy Secretary in charge of Cottage Industries—*ex-officio*; one representative each from the States of Assam, Bihar, Bombay, Madhya Pradesh, Madras, Orissa, Punjab, Uttar Pradesh, West Bengal, Hyderabad, Jammu and Kashmir, Madhya Bharat, Mysore, Patiala and East Punjab States Union, Rajasthan, Saurashtra, Travancore-Cochin, Vindhya Pradesh and Delhi; one representative each of the All-India Village Industries Association, the All-India Spinners Association, Khadi Pratisthan, Vishwa-Bharati, the All-India Manufacturers Organisation, Dayalbagh Industries; the Handloom Weavers' Congress and the Meerut Gandhi Ashram; eight persons nominated by the Central Government and five members of Parliament nominated by the Central Government.

The Deputy Secretary in charge of Cottage Industries in the Ministry of Industry and Supply will be Member-Secretary.

The reconstituted Board will have the following functions:—

(i) To advise and assist Government on the organisation and development of cottage and small-scale industries, and function as an executive body exercising executive functions through the Executive Committee;

(ii) To examine and advise how cottage and small-scale industries can be co-ordinated with large-scale industries;

(iii) To examine the scheme of the State Governments for the promotion of cottage and small-scale industries and to assist in co-ordinating them;

(iv) To advise the Government on the marketing of the products of cottage and small-scale industries in India and abroad.

It will be recalled that at its meeting held in February 1950 at Jaipur, the Cottage Industries Board unanimously authorised the Chairman to constitute an Executive Committee of the Board which could keep in continuous review the various problems of cottage industries and which should not only advise Government on all matters of policy relating to cottage industries but also function as an executive body exercising executive functions. Government have accordingly decided to constitute an Executive Committee. The Executive Committee will have 16 members including the Minister for Industry and Supply who will be its Chairman.

Wild Life and the Soil

By Lieut.-Col. R. W. BURTON, I.A. (Retd.)

It is probable that most of the readers of these lines will have had some instruction in Nature Study during their school days. They should have learned that Nature Study is not merely elementary science but is the teaching of an attitude of mind, a sympathetic outlook towards the world of Nature, from which follows a humane interest in the habits of animals, plants and all living things.

During their schooling they have been told that the earth's renewable resources consists of rock on which nothing can grow, and of many kinds of earth, of water, and of all that exists in the animal and vegetable kingdom. They will have come to know that it is from the apparently barren rocks, which are, however, of varying degrees of hardness, that soil has been formed throughout the ages owing to the disintegrating effects of water, air, wind, sun and the penetrating roots of every kind of plant. Not only will they have come to realise all this but will have been able to see for themselves, wherever they may be, those eternal forces at work as they have been since the beginning of time.

Soils of Different Kinds

They will have been told, and been able to see for themselves, that soils are of different kinds—black, grey, red, brown, yellow, heavy, light, porous—all of which contain earthworms, and clay which has none of these indispensable creatures and is therefore barren. Those who take the trouble to think for themselves can easily realise that it is through the simple use of their own intellect, their own powers of reasoning and observation, they can best use for the sake of their very existence and well-being all that has been created for them and those who will come after them.

In spite of all the above, the whole of which is obvious to anyone who will give it a moment's thought, there is the spectacle before their eyes, wherever they may be, of

The Rajendra Prasad, President of the Indian Republic, inaugurating the Samadhi of the Mahatma Gandhi at Rajpiet



the wastage of the earth, of the very living soil which has been slowly and laboriously formed through the many forces of Nature and upon the existence of which all living things depend. A very little reflection will convince us that it is by reason of plant life that every living thing exists. Without the soils there could be no plant life, without plant life there could be no soil. It is as simple as that.

Man is the Great Destroyer

Mankind is the enemy of man. Man is the great destroyer. In forested areas the systematic annual firing of wooded slopes and hills has resulted in much loss of soil and harm to wild life, as also has the destructive method of shifting hillside cultivation prevalent in some forest tracts. By reason of the consequent destruction of undergrowth and soil-binding grasses, erosion proceeds to such lamentable extent that year by year agriculture becomes more and more heartbreaking, wild life more and more scarce.

Rainfall which should soak into the soil rushes down hill slopes, and in many places only the bare rock remains for the struggling vegetation; springs dry up and streams become a mere trickle. Man removes the trees, the shrubs, the vegetation from the hill-tops and ridges and their steeper slopes; he sees that through these processes of firing and deforestation—than which there is no surer and quicker way of turning a country into a desert through these foolish and unthinking processes—the very soil upon which all life depends is rushed in muddy torrents to the sea. Yet does he persist in such positively insane doings merely for the purpose of some present and transitory profit.

Afforestation and Soil Preservation

First of all it has to be recognised that the holding of lands is, in a sense, a trust for posterity; and that no individual or corporation no matter what the title may be, shall be permitted either through ignorance or wilfully to use the land in such a way as to render it liable to erosion.

When the present intensified tree-planting and soil preservation campaign reach out to the individual cultivators, and farmers begin to see their lands so much improved—as they will be—through constant conservation methods, the movement will tend to develop very fast. An interest will arise, a public opinion begin to form, and it will be quickly grasped that these sensible methods mean greatly increased agricultural prosperity for the individual users of land. In such directions can the Grow More Food and Afforestation campaigns gradually lead the country to national prosperity and political stability.

Planting of Trees

Much has recently appeared in the newspapers regarding afforestation in general and the planting of trees. In all

those utterances and letters from individuals, there has been no mention of the great need for establishment of a belt of trees along the many thousands of miles of river and stream banks throughout the length and breadth of the country. In many of the tracts where tree-planting is advocated, and along many of the highways and roads, water-supply for the planted saplings is a real difficulty. It can be regrettably anticipated that of all the saplings planted, whatever may be the effort made, a huge number will prove abortive. Along the river and stream banks the water difficulty is much lessened. It requires small effort of imagination to visualise the great benefit to the climate, to the riverain villages, and to wild life which would result from these thousands of miles of riverain plantations. The great increase of bird life would much benefit the farmers by reason of the many more insects and seeds of harmful weeds which would be consumed by these friends of man.

Some Practical Hints

In these days of financial stringency for even essential needs, it may not be possible for Governments to provide money to help the users of soil repair the accumulated damage of many years of past neglect, or failure to see what has been going on before their eyes ever since they began to till the soil for sustenance of themselves and their beasts. So what is to be done? The answer is organised co-operation. Within the village boundaries it should be possible for village panchayats to get together and organise the requisite labour. Where the erosion and necessary tree-planting on one man's holding is too great for his individual effort, others of the community should be called upon to assist. In some instances it may be that inter-village co-operation would also be necessary. Organised and willing co-operation is the remedy for past errors.

Much has been recently written and spoken on the subject of tree-planting. To the practical mind there has been omission in all this of some of the basic things for success. Perhaps the authorities concerned have all these in mind, and in preparation. Perhaps not, so most of them are listed here. Tree nurseries in sufficient numbers sown with seeds from healthy specimens of selected varieties; the saplings grown in baskets or such containers as will preserve intact the tender rootlets when transplanting is done to the prepared pits; these pits to be square from top to bottom and not round, and of size suited to the soil; dimensions to be not less than 30 cubic feet in any case, and as much as 14 cubic feet, or even six feet cube or 100 cubic feet in very hard ground; the excavated soil to be exposed to sun and air several weeks before planting begins; necessary instructed supervising and manual labour to be available for digging of pits, watering, pruning, care and tending of planted saplings; no sapling to be less than three feet high; planting to be done in rainy weather; plantings to be spaced as variety of trees and situation demands; for roadside avenues mango and tamarind will give best long-term results; necessary tree-guard materials to be available before planting begins; prepared pits to be not near termite-mounds or nests (or these dug out beforehand) and the loose earth around the sapling to be sun-protected by dry leaves; about a cubic foot of termite-free manure to be mixed with replaced earth of the pit; the after-care of saplings to include propping of stems to secure upright

bole; the after-care to continue for about five years after planting is done.

It can be realised from the above list—which is not exhaustive—that tree-planting calls for considerable preparation, supervision and after-care if there is to be real success.

Forty Million Trees

The target number of plantings for Republic India has been stated as from thirty to sixty millions. Let it be averaged at 40 millions. Average at 40 cubic feet the necessary earth excavation will amount to approximately 1,600,000,000 cubic feet or the labour of about 40 million men for one day or ten million men for one week of four days of plantings. Given the necessary goodwill and organisation that can perhaps be achieved. Perhaps not this year, but in the coming year, with hope of continuing the programme in future years also.

And the cost? One way and another it can be taken that each sapling planted to maturity will cost not less than six rupees and there is the need also to replace failures. Perhaps much of the cost will be met through voluntary labour. The Governments will know about that.

These are the thoughts of a practical person who has a number of years of tree-planting experience as an Administrative officer and are put forward in a spirit of helpfulness.

Cotton Cultivation Scheme

At the instance of the Government of India, the Madras Government have recently approved a short-term plan for the production of cotton in this State during 1950-51. The plan aims at an additional production of 94 lakhs bales of cotton by the adoption of the following measures:—

- Expansion of area under cotton;
- Manuring of cultivated cotton area with sulphate of ammonia;
- Mixed cropping of cotton with groundnut, chillis or ragi; and
- the use of improved cotton seeds. The scheme is in charge of a Cotton Extension Officer assisted by three Assistant Cotton Extension Officers, one each at Bellary, Coimbatore and Koilpatti.

Pandit Jawaharlal Nehru, Prime Minister, planting a tree near the Samadhi of Mahatma Gandhi



Tree - Planting for National Welfare

It is said that in the Swedish town of Orsa, the trains are free, the lighting is free and education is free. All these are made possible from the revenues obtained from the well preserved communal forests. In China, the land of farmers of forty centuries, many ryots raise small forests in their holdings, setting apart some portion of the land for this purpose. They gain in two ways, first from the forest produce and secondly from the increased yields from the rest of the area by applying the green leaves from these forests as manure. There is ample scope for us to do likewise by having individual or communal forests.

Trees form an essential feature in the life of man. As sources of food (fruits and nuts), materials for building, furniture, agricultural implements, products for daily use as matches, paper, rubber, gum, resins, oil for lighting by crushing seeds, leaves for fodder or manure, honey from flowers, for transport (boats built from the tree trunks), for medicine (from the bark, as quinine) and last but not the least, as fuel, trees give us a wealth of produce. They give shade and shelter for man and beast. They afford habitation for innumerable small animals and birds that beautify nature and enliven the countryside besides destroying our insect pests.

No Trees—No Life

Man and animals live by eating other animals or vegetable matter. Trees and plants and grasses have a remarkable power of obtaining their nutriment from the sunlight, water and the fertility of the soil. Men and animals cannot get this nutriment directly from sunlight, water and soil. Hence without trees, plants and grasses, no animal or man can live long on earth. All soils are capable of growing some tree or plant or grass that is useful. It is our duty to grow that kind of tree or plant which is best suited to that place and which is most useful. It is the greatest service to humanity to grow something or other on the land, without allowing the land to be bare.

The tree is useful when it is alive and it is useful when it is dead. Verily, the man who plants a tree may be considered to have done some lasting service to his country. In olden days our ancestors took pains to plant trees and we enjoy their benefits now. We are however destroying them so fast that posterity may not have much to thank us for. Deforestation to provide land and forest products for the growing population has proceeded at such a rate that unless afforestation is done at an equal pace, we are bound to be losers.

Checking Erosion of Soil

Trees prevent the direct impact of rain water on the soil by catching the rain drops on the leaves and thus prevent the rapid rush of water on the surface and the erosion of the soil. Where large quantities of fallen leaves accumulate in densely planted areas, a sort of spongy material is formed which absorbs great quantities of water and allows gradual flow, later on. It is in this way that our forests get large supplies of water long after the rains have passed. Rills of trees planted in open tracts control the

force of the wind and prevent erosion of soil and evaporation of moisture.

Trees can be planted in porambokes, waste lands, gullies, field bunds and in the foreshores of tanks with considerable advantage. Depending upon the closeness of planting, about two tons of fuel can be obtained from an acre every year by loppings from most of the trees. By using such fuel, the present wastage of manure by the burning of dung cakes could be considerably reduced and the manure released for use on the ryots' fields to enhance yields of crops. The leaves of trees could be used as fodder or manure according to the kind of the tree grown. Experience has proved that the application of leaf manure for paddy fields has always been beneficial in improving the texture of the soil and in increasing the yields.

Care of Trees

It is also our duty to take care of the trees already planted. A tree has its individuality as much as a man has. It takes several years for a tree to grow to a certain size and it would be a pity, and almost sinful, to cut it down ruthlessly. Considerable thought should be exercised before deciding to cut down a tree or even a branch of it. When the removal of a branch is absolutely necessary, the cutting should be done in such a way that the tree is least injured thereby. Tearing the bark and leaving an ugly stump to rot is a bad way of cutting a branch. When a branch had to be removed, make a cut on its underside about 1½ feet from the base, and half way across the branch.

Then make the complete cut of the branch a foot or two above this place so that when the branch falls, the bark will be torn only up to the cut on the under surface and not continue on to the main stem. Finally, saw off the branch flush with the main stem, leaving the wound to heal nicely. A thin coat of tar or whitewash may be

VANAMAHOTSAVA

(Centre Art Plates)

Vanamahotsava, the Festival of Trees, was celebrated with great eclat in Madras State, under the inspiring lead given by Sri K. M. Munshi, India's Minister for Food. Pictures show (1) Sri K. M. Munshi planting a tulsi, (2) and (3) Ministers of the Madras Cabinet—Sri P. S. Kumaraswamy Raja, Sri A. B. Shetty, Sri K. Madhava Menon and Sri M. Bakhavatsalam—and the Chief Secretary Sri K. Ramunni Menon participating in tree-planting ceremonies. (4) Sri K. M. Munshi addressing a public meeting in Napier Park, Madras City, and India's Food Minister visiting the Ekambaranathar Temple in Kancheepuram.





Trees And Human Welfare

According to expert opinion, forests must cover 20 to 25 per cent of the total land area in a country in order to meet its various requirements. The present area under forests in Madras State falls short of this requirement. The existing forests are unequally distributed. The two World Wars have depleted our forests to a great extent. During World War II advance felling was done to meet war-time demands. Not only valuable timber trees but also various kinds of jungle wood were in great demand. Private forests were exploited to the full by their owners on account of tempting prices. Trees have been indiscriminately cut for purposes of firewood and for making charcoal for running buses and lorries owing to petrol shortage.

During the last two years many princes and Zamindars are said to have cut down numerous trees in different parts of the country in anticipation of their having to give up zamindari rights. The Grow More Food campaign also has, to some extent, encouraged the clearance of jungles to bring new land under cultivation. The extension of food crop cultivation at the expense of forest or pasture land would be doing a disservice to agriculture itself. A balanced land utilisation policy must be followed so that the cultivation of food and commercial crops, the growth of forests and the raising of pasture may each receive its due proportion of land and attention.

Many of our people no doubt love trees. Some kinds of trees are also worshipped in this country. People with a philosophic temperament or religious bent of mind seek to go far from the madding crowd's ignoble strife and spend their time in the silence and solitude of the forest trying to probe into the mysteries of creation or to attain saintliness. Apart from any such facilities for spiritual life which forests may give, they are of material benefit to us in many ways. Many of us are not aware, except in a vague way, about the contribution which trees make to human welfare. Forests have influence on the climatic conditions of a place. They precipitate clouds and increase rainfall in their neighbourhood. They supply us timber, firewood, manure leaves, fodder grasses and various useful products such as fruits, nuts and raw materials for certain industries.

The tree growth on our hill slopes prevents erosion and landslides, holds back the torrents of heavy rain and protects the plains from devastating floods. It also acts as a break on the flow of springs and streams and maintains a steady supply of water in the rivers below. The disastrous effect of erosion can be seen in the Nilgiris. That has been brought on by the clearance of natural forests on the slopes of the hills for the purpose of potato cultivation. Though soil erosion has been going on for ages all over the world, it is only in recent times that public attention has become focussed on the need for soil conservation. Trees are one of Nature's most efficient weapons for protection against erosion. A national programme of tree planting and afforestation must become a vital part of our food production plan in future.

—A. B. SHETTY, Minister for Agriculture

applied to the cut surface to cover it. The peeling of the bark of the wayside trees is a very bad practice and public opinion should be educated to eradicate this injurious habit. Removal of the bark tends to kill the tree by slow degrees, besides making the tree unsightly as long as it lives.

Planting the Seedlings

In the tree planting week, a large number of seedlings and stumps of useful trees were distributed to the ryots. Ryots who have now understood the necessity and usefulness of the trees in the scheme of life should take great care to raise them properly and nurture them to their full growth and usefulness.

Young seedlings should be planted without loss of time soon after their arrival. The soil at the place where they are to be planted must be dug well with a pit from the plant seedling, water poured till the pit is full of loose mud and the seedlings inserted into it. Roots should be given their natural position and not crowded or bent.

Thus air round the roots will be excluded and when water dries, the plant will get fixed up. It is better to cut

off some leaves before transplanting. In the same way when stumps are planted, the stump should be inserted into the mire of the pit to a depth of about one to two feet according to the size of the stump, and the top of the stump covered with clay or dung. Watering should be frequently and carefully attended to at the early stages, till the seedlings or the stumps begin to put forth new shoots. Later, care should be taken to protect them from cattle, sheep and goats. A thorny or stone fence may be formed round each plant.

Some Useful Trees

The following trees are useful to every ryot and should be in every holding :—

Neem (Vepa) : It is a beautiful tree, all parts of which have medicinal properties. Even the breeze blowing through the tree is said to be very healthy. Its wood is useful for house-building purposes, furniture, carts, axles, yokes, ploughs and oil mills. The bark is medicinal and seeds are pressed for oil which is also medicinal, and the cake is useful as a manure. Flowers yield honey. The leaves are good as leaf manure.

BOOKS AND PUBLICATIONS

"SOCIAL AND POLITICAL IDEAS OF MAHATMA GANDHI"

By HORACE ALEXANDER, NIRMAL KUMAR BOSE, J. C. KUMARAPPA, P. A. WADIA and P. S. RAMANATHAN. Published by the Indian Council of the World Affairs, New Delhi. Price Rs. 1-12-0.

In the recent session of the Constituent Assembly, Dr. Ambedkar warned against the tendency for hero-worship. Our nearness to the Mahatma exposes us to the danger of missing the basic tenets of Gandhiji's teachings, by the adoption of a sentimental, rather than a rational approach, to the Gandhian philosophy of life. The Mahatma was also a realist, a practical man, and future generations will marvel at Gandhiji's preoccupation with the trivials of every-day life, amidst consideration of the graver issues of State affairs. The need, therefore, to discard emotional appreciation of Gandhism, in favour of the analytical, is imperative.

The book under review should prove useful to earnest students of the Gandhian way of life. The five authors—well known publicists, educationists and exponents of Gandhism—expound different aspects of the Mahatma's beliefs on political, social, economic

and religious themes. The studies are short, simple, yet telling. The authors find certain common elements in their respective findings: Gandhiji's insistence on moral values, ethical bounds, and just means towards proper ends, his solicitude for the underprivileged, his acceptance of religion, with all men equal before God and his fervent faith in the Gita maxim—"It is best to die performing one's own duty or Swadharma." These moorings help Mahatmaji to elevate social, political and economic sciences from the present materialist concepts, to higher planes of duty and service.

The only controversial note in the volume is struck by Professor P. A. Wadia who opposes the Gandhian doctrine of decentralized economy, as interpreted by Dr. J. C. Kumarappa. Mr. Wadia argues that such a system is incompatible with industrial progress in a mechanised civilization.

—F.V.S.

"THE HINDUSTAN SCOUT ASSOCIATION, MADRAS"

Report for 1948-49.

The Hindustan Scout Association, Madras, recently held its annual meeting when the Hon'ble Premier of Madras presided.

It may be recalled that the scout movement in India was inaugurated in 1916-17 by Dr. Anne Beasant. In 1917, the Indian Boy Scout Association also saw the light of the day. Pandit M. Mohan Malavya organized another Scout Association. A third was brought into being under Government auspices. In 1921 the various scout associations were merged except the one under Malavya.

Certain developments which took place later led to the formation of the Hindustan Scout Association.

The report of the Association in 1948-49 is interesting. It may be emphasized that scouts can play a useful role in the rural uplift movement in the Province. The story of rural reconstruction work in Bengal under the auspices of Tagore's Santiniketan and Sriniketan contains plenty of evidences as to the manifold ways in which scouts can help uplift work in villages. The day may not be long in coming where the scouts in the Province would be participating in the rural uplift movement on the success of which depends the economic independence of this country.

—T.K.G.

A SPECIAL REPUBLIC SOUVENIR

Containing interesting and useful information about the progress and development achieved in the Province during the three years of Independence will be issued on the 26th January. Price Re. 1. Book your copy with our local Agent.

Madras Information

Published every month by the Director of Information and Publicity

Fort St. George

Vol. IV, No. 2

"WE SEEK TO SERVE AND NOT TO COMPETE"

February 1950

NEWS AND NOTES**Progress in "Settlement"**

Under the Estates Abolition Act, so far as Inam villages are concerned, only those which are declared to be "Inam estates" can be "abolished". To decide whether an Inam village is an Inam estate or not, six Inam Settlement Officers were appointed, with headquarters respectively at Visakhapatnam, Vijayavada, Chittoor, Tiruchirappalli, Tirunelveli and Manamadura. All these officers have started work.

There are in all about 8,000 Inam villages in the Province. Up to 15th November 1949, notices under section 9 (2) have been issued in 1,428 cases, and inquiry under section 9 (3) has been started in respect of 659 villages. Final orders under section 9 (3) have been passed in 287 cases. In the initial stages, the progress has had to be somewhat slow, but it is expected that hereafter the progress will be gathering momentum by and by.

As regards survey of zamindaris, two survey parties have been formed, one with headquarters at Chittoor and the other with headquarters at Sivaganga. Both

the parties have commenced to work, the former in Venkatagiri estate and the latter in Sivaganga estate. Many villages in both those estates had been surveyed even previously, but as there was no "maintenance", nearly half the stones are found missing. The survey party is engaged in bringing the survey up to date, in the case of surveyed villages, and in doing initial survey in other villages. The survey staff have necessarily to prepare an up-to-date list of the present enjoyers of fields and also to plot subdivisions according to present enjoyment. The work of the survey parties is making satisfactory progress.

Regular ryotwari settlement of these estates will be taken up as soon as an appreciable portion of the estates has been dealt with by the survey parties, and necessary survey records have been prepared. In order to ensure efficiency in settlement work two settlement officers of the grade of District Collector, four I.A.S. Officers and four Deputy Collectors are undergoing training in the office of the Director of Settlement.

A.I.R. Hindi Lessons

The present course of lessons inaugurated at Madras, Tiruchi and Vijayavada in the morning transmission, will last till the close of March 1950, after which another course will start and will be broadcast at another time of the day to suit listeners for whom the present timings may be inconvenient. These broadcasts are carefully prepared with a view to learning by hearing only, and printed lessons associated with them may only retard the progress of those not acquainted with the script. Pronunciation and familiarity with spoken language are also best learnt by hearing rather than reading. Unfamiliar usages peculiar to Hindi like difference due to

gender, past-tense of intransitive verb, etc., will be introduced by stages. The vocabulary will be built up gradually to give a basic list of simple nouns of practical utility; old and new expressions will be constantly repeated during the course so that those who missed parts of the lessons would not be placed at too much disadvantage. While grammatical spoken Hindi is taught, rules of grammar as such are not asked to be learnt by listeners.

COVER PAGE—Winnowing.

Babul (Karur): The plants are raised from seed. The seed possesses a hard seed coat and requires to be scratched or pounded to produce good germination. The trees mature in 10 to 20 years according to the soil. The wood is useful for house building, posts, beams, rafters, carts, boat building, temple cars, rice pounders, ploughs and tool handles and is particularly useful as tent pegs. It is an excellent fuel. The bark is used in tanning and dye making. The pods are useful fodder. A good quantity gum oozes out from the stem. Babul trees could be raised usefully in village pasture grounds.

Kapok (Silk cotton): The tree is easily raised from seedlings and could be planted in backyards and round fruit gardens. The tree yields a very useful cotton which is good filler for cushions, beds and life-buoys. It is the most buoyant of all materials used for life-buoys. Kapok is found to possess remarkable antiseptic and healing properties, and can be applied to open wounds. It is ideal for use in aeroplanes owing to its lightness.

Cashewnuts (Munthiri): Many acres of land now lying waste could be profitably utilised by growing cashewnut, especially in places of good rainfall. The trees are easily

A flowering tree (Casia javanica) in the Ornamental Gardens of Agri Horticultural Society, Madras



Trees and Our Tradition

Trees not only confer on us material benefits but it is in the primeval forests and in the shadow of giant hills that Indian Metaphysics was born and the spirit of enquiry into the value of things saw the light of day. The great Puranas and the Upanishads were written in the sylvan setting provided by forest giants rising on the crest of everlasting hills. Our tradition is intimately linked with forests, and coming down to historic times, the great Vijayanagar Empire was founded in the heart of the forest while Shivaji had his apprenticeship in the art of war in mountain fastness and forest glades.

Our forefathers having realised the role the forests play in the general economy of the country, preserved trees and planted them systematically and scientifically too. The great Asoka, history tells us, planted banyan trees on the road sides. But unfortunately owing to centuries of neglect and due to circumstances created by war, big forests have disappeared. This has led to devastating floods, erosion of soil, progressive diminution of rainfall and general deterioration of climatic conditions.

—P. S. KUMARASWAMI RAJA

propagated and yield tasty and nutritious kernels. The fruit is a remedy for scurvy. The wood is useful for boat building and is also a fuel.

Palmyra: The palmyra palm is propagated only by seeds. By sowing the seeds in rows, they may be made to grow, so as to form a hedge. As they grow very slowly they form a good hedge for considerable period of time. The tender meat of the germinating seed of the palmyra is a useful article of food. The pulp of the fruit is edible. The leaves are used for thatching.

Kina tree: A large deciduous tree raised by stumps or seeds. The wood is useful for posts, beams, door and window frame, furniture, agricultural implements, carts and boat building. The tree also yields a gum. The leaves are good as manure.

Pungam: A common leaf yielding tree, easily grown from seeds. It also yields an oil seed from which oil for burning lamps and cake for manure can be extracted.

Indian Walnut (Vagai): A large deciduous tree, gives handsome furniture wood, posts, and beams for home building, ploughs, rollers, oil mills, yokes, carts, etc. The leaves are useful as manure.

Glyricidia maculata: A beautiful avenue tree raised from seeds or cuttings. The plant grows quickly and yields large quantities of leaf useful as manure.

Prosopis Juliflora (Mesquite): A newly introduced fencing plant. It grows quickly in shallow soils and in places of light rainfall.

The New Public Libraries Act

By Sri RAJIAH D. PAUL, Secretary to Government, Department of Education

The importance of widely-distributed and well-stocked libraries is an indispensable adjunct to a nation's education and human history. Kings and wise men have made and kept collections of contemporary and earlier writings, not only for the use for the students and the scholars of the day, but also for the use of posterity. Much of the comparatively meagre knowledge that we possess of those early times and civilisations has been acquired apart from pure archaeology, from that little that has survived the ravages of time from among such early archives in Assyria, Babylonia, Egypt and Ancient India. When, as in our country at the present time, the Government is going all out to produce, in the quickest possible time, a nation of literates, equipped with adequate knowledge and discernment, the need for a library movement which will make available, to the newly made child or adult literate, suitable literature which will not only help him to maintain his literacy but also develop his mental equipment further, is paramount.

One reason why during the last thirty or forty years we have not succeeded to any very great extent in decreasing the percentage of illiterates in our country is that the children who went through our elementary schools and became literates had no chances and opportunities to keep up their reading; and having had no access to books suitable to their standards and tastes, forgot, in the course of time, all that they had learnt at school. If we are to increase the number of literates in our country, and retain them as literates, a widespread system of libraries in our villages and in our towns is a primary need.

This new piece of legislation which has just come into effect is intended to fulfil just this very need. The Madras Government may well take pride in having been almost the first to have evolved a library law. The Madras Public Libraries Act, 1948, passed by the Madras Legislature in the winter session of 1948, received the assent of the Governor-General in January 1949 and was brought into force throughout the State on the 1st of April 1950. Steps are now afoot to implement the provisions of the Act and to establish Public Libraries throughout the State and to organise a comprehensive rural and urban library service therein.

Machinery for Working the Act

The machinery for working the provisions of the new Act is to be as follows:

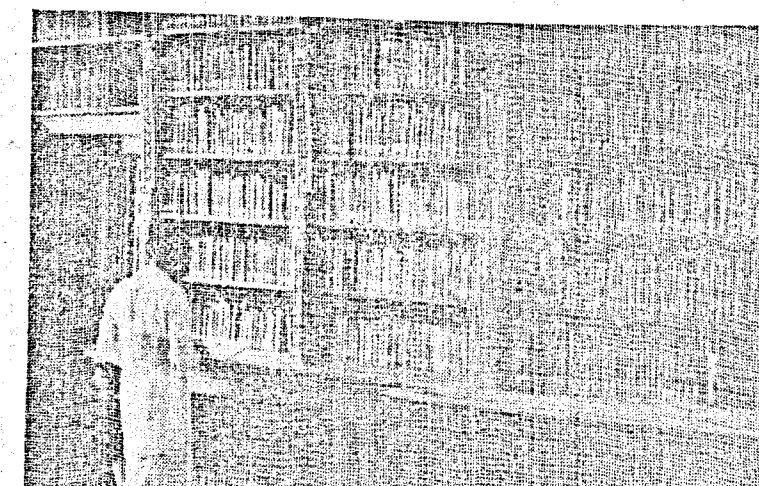
In each District (and in the City of Madras) there is to be set up a Local Library Authority which will be primarily responsible for the establishment of a network of public libraries in the district, both in the rural and urban areas, and for the organisation of an itinerant library and book-distribution service for every single village in the district. These Local Library Authorities are somewhat like our District Boards or rather like our now defunct District Educational Councils—partly elected and partly nominated—Committees functioning as bodies corporate and vested with statutory powers for carrying

out the objects in view and equipped with the necessary funds. At the top, there is to be a Director of Public Libraries whose business will be to superintend and control the work of the Local Advisory Authorities and to distribute grants-in-aid to private libraries. He will work directly under the Government. In order to help the Government and to advise them on matters relating to libraries, there will be set up a State Library Committee—an advisory body composed of experts and specialists in the practice and theory of library science.

The Local Library Authority for the City of Madras is to consist of twelve members on the whole—three to be elected by the Corporation of Madras and eight nominated by the Government, of whom three will be office-bearers of recognised libraries situated within the City limits, two will be headmasters or headmistresses of high schools in the City and one the Principal of a college. The other member will be an official—an officer of the Education Department—who will also function as the Secretary of the Local Authority.

The Local Library Authority for each District in the State will consist of between twenty to thirty members, depending on the size and importance of the District. It will be composed of ten members nominated by the Director of Public Libraries, of whom three will be office-bearers of recognised libraries in the District; and five will be headmasters or headmistresses of high schools or principals of colleges in the District. One member will be elected by the District Board. One member will be elected for each taluk in the district by the presidents of the Panchayat Boards in that Taluk. One or two or three members will be elected by each Municipal Council in the District according to its own size and importance. The last will be an official—the local District Educational Officer—who will also be the Secretary of the Local Authority.

A quick corner of the Connemara Library, Madras City with books in carefully catalogued rows



National Flag of India

It has been brought to the notice of the Government that very frequently the National Flag of India is unintentionally disrespected and abused by the public, mainly out of ignorance of the proper use and display.

As early as December 1949 the Government have brought to the notice of the people the rules concerning the display. The Government feel that it is necessary to see that wrong use of the flag is prevented. They have, therefore, issued instructions to the District Magistrates, the District Superintendents of Police, the Commissioner of Police, Madras, and the executive authorities of all local bodies to be on the look out for cases of wrong use of the National Flag with a view to taking necessary steps to prevent such use.

Main Functions of Local Authorities

The main functions of the Local Authorities will be the planning and the establishment of public libraries of all types throughout its area; stocking them with necessary books, periodicals and other equipment; arranging for lectures and classes; and doing in general everything necessary to carry out the provisions of the Act—themselves employing all the staff required for the various purposes. They will have power to make detailed rules and regulations regarding the functioning and supervision of the public libraries in their respective areas.

Perhaps the most important and far-reaching provision in the new scheme is the power given, nay the obligation imposed, on every Local Library Authority to levy a special library cess within its area, in order to provide itself with funds with which to carry out the purposes for which it has been set up, namely, the creation of a great network of public libraries, and the organisation of a

Existent students browse the latest journals stocked in the library



widespread rural and urban library services. The cess is to be levied in the form of a surcharge amounting to six pies per rupee on the property tax or house tax, already levied and collected by the local bodies in the area—namely, the City Corporation, mofussil Municipalities or the Local District or Panchayat Boards, as the case may be. The cess will be actually collected by those local bodies along with their taxes and will be paid over to these Local Library Authorities.

The Government, on their part, will make a contribution to each Local Authority of a sum equal to what it gets from this cess. In addition, it will be open to the Government to make the special grants to any Local Authority for any specific purpose. The Local Authority will also have power to collect special contributions, gifts and endowments from the public. The Local Library Authorities will thus have ample funds wherewith to finance their schemes and plans.

Formulated Development

The very first duty laid upon the Local Library Authorities by the Act is to draw up as soon after their constitution as possible, a general plan or outline a scheme, showing a picture—on maps and in statements—of the number and distribution of the main and branch libraries and the delivery stations which its area should ultimately have, when the spread of library service reaches its fullness. After obtaining the sanction of Government for this overall plan or scheme, Local Authorities will start implementing the scheme in successive stages in accordance with a pre-arranged and sanctioned time-table, from which they will not be allowed ordinarily to deviate. Planned and continued progress and development is thus ensured.

At the same time as the establishment of this widespread public library and book distribution service, private libraries are also to be encouraged by the payment of liberal grants-in-aid. The Director of Public Libraries will be responsible for assessing and distributing the grants. Private libraries, in order to become eligible for grants, should be approved by the Director. They should be free and open, without restriction of class or creed, to the public. They should be kept open for the use of the public for not less than thirty hours a week. They should have books of general interest and cultural value and not merely newspapers and periodicals. The library should be located in a building of its own with all necessary equipment and should be staffed adequately. It should be a lending library and not merely a reading room. It should have a capital fund to be determined in each case by the Director and should be managed by a body approved by the Director but in accordance with its own constitution and bye-laws.

State Library Committee

In the administration of the Act, the Government will be assisted by a State Library Committee consisting of 17 members—the thirteen non-officials on the Committee being two elected by the State Legislature, three nominated by the syndicates of the three Universities in the State, four nominated by the four Library Associations in the

Advance Compensation Under Zamindari Abolition Act

Under Section 54-A of the Madras Estates (Abolition and Conversion into Ryotwari) Act, 1948, as amended by Act I of 1950, Government have to deposit not later than 30th June 1950 the advance compensation payable in respect of the zamin and undertenure estates already notified under Section I (4) of the Act. From the amount to be deposited, Government are entitled to deduct one-half of all moneys due to the Government as specified in the proviso to Section 41 (1) excepting for a few zamin and undertenure estates mostly held by Religious, Educational or Charitable Institutions, the advance compensation payable in respect of the remaining estates amounting to Rs. 1,11, 58, 593 was already deposited in March last by the Director of Settlements with the Estates Abolition Tribunal, Vizianagaram (Rs. 75, 03, 178) and with the Estates Abolition Tribunal, Madhurai (Rs. 36, 55, 415). This was exclusive of a sum of Rs. 20,57, 483 deducted towards one-half of Government dues in respect of certain estates. A list of those estates with the amount deposited in respect of each estate was published at pages 453-455 of the *Fort St. George Gazette*, Part II, dated 11th April 1950.

A list of undertenure estates for which the advance compensation as worked out under the Act turned out to be 'Nil' after making the statutory deductions, was published at pages 833-835 of the *Fort St. George Gazette*, Part II, dated 27th June 1950. In a Press Release issued by the Government on 29th June 1950 the Government have stated that the question of amending the Act so as to ensure that relief is given to the holders of these undertenure estates is engaging their attention.

The Director of Settlements has deposited, on 27th June 1950, with the Estates Abolition Tribunal, Madhurai, a further sum of Rs. 55, 579 and on 28th June 1950 with the Estates Abolition Tribunal, Vizianagaram, a further sum of Rs. 89,507 towards Advance Compensation for the excepted estates mentioned in paragraph 1 above. The figures include also the additional amounts required to be deposited for certain other estates in the light of information subsequently received. A further list of estates for which amounts have been deposited has been published at page 853 of the *Fort St. George Gazette*, Part II, dated 4th July 1950.

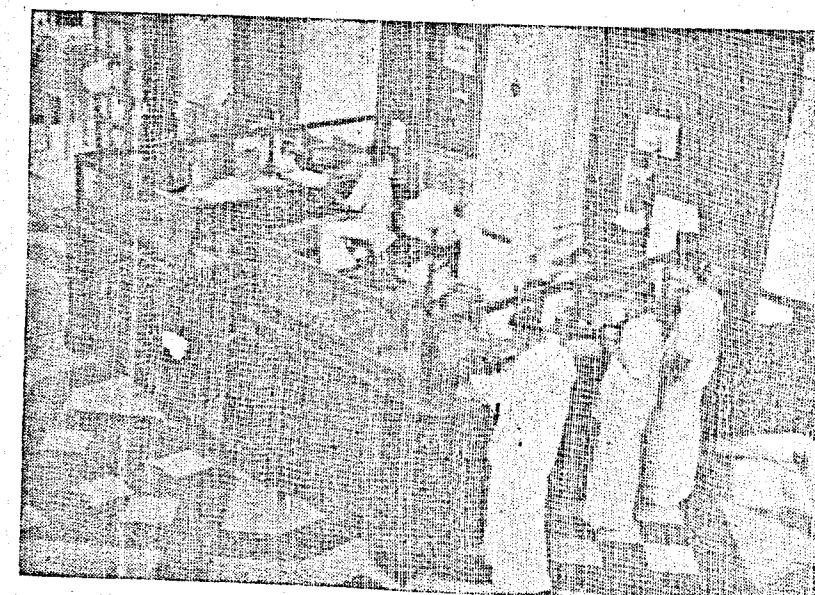
In respect of Kotipalle estate situated in East Godavari District, the advance compensation payable as computed by the Director of Settlements worked out to a sum of less than one-half of the Government dues, and accordingly this entire amount of advance compensation was adjusted towards the Government dues.

The total amount for payment of advance compensation deposited so far with the Estates Abolition Tribunal at Vizianagaram is Rs. 75,92,685 and that with the Estates Abolition Tribunal, Madhurai, is Rs. 37,10,994, making a total of Rs. 1,13,03,679. This excludes a sum of Rs. 20,71,041 adjusted towards Government dues.

four language areas in the State and four others nominated by the Minister for Education. The functions of this committee will be purely advisory, but will relate to all branches of library administration including the formation and management of the Central Library, the training of a special staff for running libraries, and the scrutiny of the plans submitted by the Local Library Authorities.

There has been opposition from some quarters to the proposed levy of a special cess; but a little reflection is sufficient to show that without adequate funds it will be impossible to achieve any appreciable progress towards the establishment of a complete and State-wide library service. Both the State Government and our existing local bodies are already fully committed in respect of whatever funds they have and cannot be expected to find money for this new but very necessary development. The creation of new and autonomous Local Authorities to plan for and carry out schemes in their own respective areas was the only wise thing to do. No existing body could be expected to undertake the task which will soon be seen to be of a magnitude far beyond the means of any body or organisation already engaged in other activities. The whole scheme has been wisely conceived and it is hoped that very soon its beneficent results will be apparent in the increased intellectual efficiency of the people of this State.

(By courtesy, A.I.R., Madras)



At the counter of the Connemara Public Library, where books are issued to readers

Statistics of Fish Landings

As a source of food, fisheries stand almost on a par with agriculture and animal husbandry. The position with respect to the availability of statistics, however, is different; while some statistics are collected in the field of agriculture and animal husbandry, no data on an all-India basis is compiled with regard to fisheries. It may appear a truism, now, to stress the collection of statistics of fisheries, as a pre-requisite for any proper development of fisheries. An estimate of current production is necessary to assess the contribution of fisheries to the available food supplies, as also for planning the future development of the industry.

A study of the factors of production will throw light on the directions in which the management of the fisheries can be organised both intensively and extensively. The types of material and equipment in the possession of the fishermen will indicate the efficiency of the occupation and suggest measures for increasing the same. The imperative need for the collection of statistics of fisheries was stressed in the Memorandum of Postwar Development of Indian Fisheries. The Fish Sub-Committee on Agriculture, Forestry and Fisheries was greatly handicapped by the absence of statistical data on fisheries. The inter-departmental committee on official statistics pointed out that "a serious gap in the available statistics relating to food supply is in regard to fish production." It was also discussed by the Fish Committee of the Indian Council of Agricultural Research at its meeting held in December, 1947.

Systematic Collection in Madras State

Except in Madras State, nowhere else has the collection of statistics been attempted on a systematic basis; this has been possible in Madras due to the existence of Fish Curing Yards all along the West Coast. Even these statistics are only estimations. In 1947 it was decided

One of the tanks in which fingerlings have been stocked as a part of the fishery development scheme in the Deilt area

by the Fish Committee of the Indian Council of Agricultural Research that a standard method of estimating the landings of fish all along the coast of the Indian Union should be evolved. Based on this recommendation the Indian Council of Agricultural Research selected Malabar for working and trying different methods of the statistical techniques for many reasons for which Malabar can be proud.

The scheme was sanctioned in 1949 and the main objects of the scheme are to study the possibility of applying the method of random sampling for estimating the total catch of fish under the conditions obtaining along the Malabar Coast in Madras Presidency and to study the variation in the catch of important types of fish. The knowledge of the total number of fishing boats in the villages along the entire coast is essential for estimating the total catch of fish and this has to be carried out before the commencement of the sampling survey. Records of total catch for each of the sample boats in the different villages will have to be maintained in special forms.

The scheme was commenced early in December 1949. There are 108 fishing villages all along the Malabar Coast and four or five villages will be allotted to one Statistical Enumerator for recording data on landings of fish by sample boats. There are three Sub-Inspectors of Fisheries and 24 Enumerators appointed specially for the purpose; the statistical survey is under the administrative control of Sri K. Chidambaram, Assistant Director of Fisheries (Marine Biology), West Hill. With the co-operation of the fishermen, the fish merchants and the public, it will be possible to work out at an early date the most suitable method for estimating the catches of fish to be adopted all over India and the fishing community in Malabar can be proud of the result, when achieved, as this will be one more feather to the cap of the fishermen of Malabar.

Decontrol of Kerosene by Stages

As the supply position of kerosene has become easy, the Government have after careful consideration, decided to decontrol kerosene by stages. To start with all quantitative restrictions on the sale of kerosene have been abolished but the licensing system and the price control have been retained. Fresh licences, both wholesale and retail will, however, be issued to all persons who apply for them provided they have not at any time been found guilty of or even suspected of having indulged in anti-social activities such as hoarding, blackmarketing, etc. Production of ration cards for the purchase of kerosene will not be insisted upon in future. The public are, however, warned that they should not throw away the ration cards but should preserve them for a period of four months by which time the partial decontrol of kerosene has worked and whether it would be possible to remove control over kerosene completely or whether it would be necessary to revert to full-ration cards.

Tradition and Sanitation

By Dr. T. S. S. RAJAN, Minister for Health

Tradition is the handing down of opinions or practices to posterity, unwritten, and sanitation in the larger sense of the word is the science of preserving health. I have been asked this evening to talk to you on the inter-relation, if any, between tradition and sanitation.

I distinctly remember the occasion when, after attending school for the first time, I returned home in the evening. My mother insisted on my having a bath, soaking my clothes, and putting on clean clothes after drying myself, before doing anything else. I asked my mother why I should do so, when as usual, she delivered the first and last word on the subject, by saying it was the custom. Now why should this custom have been introduced? In what way had I become more unclean by attending school than I would have, had I remained at home?

My mother's explanation, later, was simple. She pointed out that at home she saw to it that everything and everyone was spick and span and cleanly, whereas there was no guarantee that those I had come into contact with at school, and on the way to and from school, maintained themselves in a similar state. The custom was a practice which had been followed for generations by our forefathers. The opinion has always been prevalent in India, and in many cases still holds good today, that what was good enough for our forefathers ought to be good enough for us also, and that it is not for us to reason why. In the instance I have mentioned, there was a specific reason, sound enough to justify the practice, and obvious enough for any one to appreciate it.

There are traditions which are definitely sound and which we should do well to follow, in the interests of health. There are others which, although they might have been sound in the past, need not be blindly adopted in modern conditions of living. There are yet some others the adoption of which may well be injurious to health. We, in this modern world, in which we have plenty of reliable information based on scientific inventions, should sift our old customs and traditions and accept only those which we feel are sound. But on the whole, most of our traditions are sound and will continue to be so for all time.

Sipping, Pollution and Infection

Applying a cup or other drinking vessel to the lips when drinking, has always been frowned upon in our State, particularly in orthodox families. We now know a cup used by a sick person, suffering for example from tuberculosis or a septic throat, may well constitute a source of infection, if used without being properly cleaned. It may be that our ancestors discovered this consequence in the hard school of experience, and laid the embargo. It is quite possible that this embargo was found necessary in a society in which drinking vessels were not available in large numbers, and each family or other unit, possibly had only one or two. Or it may be, our remote ancestors had no very hot beverages which could be drunk and enjoyed only by putting the vessel to the lips. In modern conditions there can be no objection to each person having

his own drinking cup, or to the same cup being used by others, after a thorough rinse in hot water. Each soldier in the army usually has his own drinking mug, and in this case, there need be no absolute prohibition against the user of the cup drinking out of his vessel, with his lips applied to it.

Similarly, the observance of pollution possibly helped in those days to prevent the spread of any infection, which the dead man may have had, through those who had been in contact with him. But today, when we are in a position to distinguish between infectious and contagious diseases and others, it may not be necessary to observe the rule of pollution in all cases. In any event, it seems to me to be carrying the custom to ridiculous lengths, for a relation to put himself into quarantine, so to say, on receipt of intimation of a relative's death, miles away. While this is so, the practice of having a thorough bath after returning from the cremation or burial ground is probably very sound even today. The state of our cremation grounds by no means instil any aesthetic sense of appreciation, or respect for the dead, in us. Similarly, there can be no doubt that the practice of leaving one's shoes outside, before entering the house, is based on very sound sanitary principles.

Modern Attitude to Smallpox

One school of thought holds that all such traditions are based on requirements of health. This may not always be the case. There are certain traditions, the origin of which may possibly be the desire to preserve health, or more probably some other motive. The dreaded disease of smallpox was treated as a visitation of God in an age when its causation, prevention and treatment were unknown. The disease being a visitation of God, the people did not have the courage to attempt to treat it, but passively

Pure drinking water is vital to preserve the health of the community. Dr. T. S. S. Rajan, Minister for Health, here inspects a pump



let it take its toll. Any attempt to treat the patient need to be considered an insult to the Deity, likely to be visited by more dire punishment. But this state of helplessness need not be indulged in today. We do our best, through vaccination, to prevent an attack, and we treat actual cases and try to ensure a cure. At the same time, it strikes me that the hanging up of margosa leaves in front of a house with a case of smallpox was probably intended to warn people to steer clear and avoid spread of infection by a more or less sound method of isolation.

There are certain other traditions which, in my opinion, err too much on the side of caution. It is a custom in some communities to wash once again cooking utensils which have been thoroughly cleaned and washed already by the servant of the house. While of course there is no objection to a further cleansing of the vessels, and in fact such cleaning may be wholesome, it is not essential, if the original cleaning and washing has been thorough enough. Similarly, the practice of smearing a thin paste of cowdung and water over ground on which a person had eaten from a leaf or plate, is besides being messy, unnecessary. Cleaning the place with plain water and mopping it up will be just as safe and effective.

While some authorities claim that cowdung has some antiseptic properties, it cannot be denied that it also harbours certain dangerous germs. The tradition of using cowdung as a purificant is probably based more on reverence for the cow and its products than on hygienic principles. But it is my considered opinion that the use of water in which a little cowdung has been mixed, for sprinkling over part of the street in front of the house is definitely good. Plain water will not settle the dust and facilitate the muddy paste being swept away. The addition of a little cowdung will assist considerably the process of removal of the fine dust, leaving a clean and plastered surface.

Need for Civic Traditions

While we have many traditions and customs which are probably entirely and rightly based on sound principles of personal hygiene, we do not have the same volume of

Dr. T. S. S. Rajan watches the children get their milk from UNICEF

traditions which bear on civic cleanliness and civic hygiene. There are a few traditions the adoption of which will improve our civic hygiene, for example the prohibition of spitting. On the other hand, there are no traditions which charge us not to throw household refuse out on the street. There is no tradition which makes us take care to see that drainage from our house does not pass into the backyard of our neighbours; there is no tradition, or even superstition, which lays customary embargo on our bathing near a public well. We would be a cleaner people indeed if we evolved new traditions to preserve civic sanitation, as distinct from personal hygiene. It is because of the absence of such traditions, in the large part, that statutory prohibitions have had to be laid down to preserve and improve public health. But no law can be self-enforcing, and without the willing co-operation of the people, it will be largely a dead letter.

I have thought over the matter carefully and in the light of what I have already stated I cannot help coming to the conclusion that quite a good part of our traditions is based on sound sanitary principles and should continue to be followed. There are however certain other traditions based on conditions prevalent in the ages past, which are either unnecessary or undesirable in present conditions. For a people to have traditions and to follow them is a good thing, but there can be no virtue in blindly accepting old practices without questioning their origin and the necessity or desirability of following them. The modern man should adopt what he finds good after examination, and discard what he is sure is obsolete and unnecessary.

(By courtesy, A.I.R., Madras)

Milk Powder for Mothers and Children

The 100,000 lb. of skimmed milk powder allotted by UNICEF to Madras State has been received. The quantity of milk powder received will be distributed to about 6,300 needy mothers, under-nourished children and infants through eight institutions. The distribution of milk to the beneficiaries will be made for a continuous period of six months, at the rate of 8 oz. of reconstituted milk per person per day.

The scheme of distribution of 100,000 lb. allotted is, briefly, as follows:—

Madras City—72,000 lb. for distribution among 2,500 pregnant and nursing mothers and children under 12 years, attending the Maternity and Child Welfare Centres, and for 2,000 under-nourished school children. Poonamallee Health Unit area—8,800 lb. for 500 mothers and children attending the Maternity and Child Welfare Centres and for 300 school children. Mathurai Municipality—8,000 lb. for 500 mothers and children in Maternity and Child Welfare Centres. Musiri and Hindupur Firkas—4,800 lb. each for 300 school children in each firkas. Nutrition Clinic attached to the Nutrition Research Laboratories, Coonoor—925 lb. for about 60 persons. Nursery School under the Christian Medical College Hospital, Vellore—325 lb. for 20 children, and Margaret Bell Creche run by the Guild of Service, Vellore—325 lb. for 20 children.

Leprosy

Sri T. N. JAGADISAN, Honorary Secretary, Hind Kusht Nivaran Sangh.

Pandit Jawaharlal Nehru recently emphasised the importance of the public approach to national problems, for if the official approach is combined with a popular approach, the people see wisely and support intelligently. Pandit Nehru also stressed the importance of fixing our objective on the essentials of a problem and concentrating on primary things. The Hon'ble Dr. T. S. S. Rajan, our Health Minister, recently made exactly this "public approach" to the important problem of leprosy and concentrated on essentials, ruthlessly cutting our secondary things, when he addressed a conference of leprosy workers recently.

The problem in leprosy is how to check the spread of infection and gradually control and eliminate the disease from our land. Dr. Rajan addressed himself to this primary aspect of the leprosy problem. He drew up a plan which ensured the treatment, care and rehabilitation of leprosy cases and also ensured the safety of the healthy population from infection. It is a plan firmly conceived and practical to the core—one which with the co-operation of the general public and patients in particular, would lead to certain control of leprosy and the saving of large multitudes of our future citizens from the marring effects of a disease which brings such mental suffering and social handicap to the patients. Before detailing Dr. Rajan's plan, it is necessary to review in brief the leprosy situation as we know it to be and the background of previous and existing work in the State.

The State of Madras seems to have been even in the last century more or less endemic with leprosy in many of its districts. At present, it is believed that the districts of South Arcot, North Arcot, East Godavari, West Godavari, Visakhapatnam and Malabar are the most endemic districts of the State. Salem, Chingleput, Ramanathapuram, Madurai, Tiruchirappalli and Tanjore are also areas with a wide prevalence of leprosy. Indeed, with the exception of Nilgiris District and Anantapur District, almost every district has some leprosy.

Popular Ministry Tackles Problem

The background of previous and existing work in Madras State is favourable for the control and ultimate eradication of leprosy. The Popular Government have always evinced a special interest in leprosy. In the first Congress Ministry, Dr. Rajan, who was also then Minister for Health, put leprosy on the map by laying down the basis for a comprehensive scheme of anti-leprosy work. The war years intervened, but the energy and enthusiasm of Dr. Cochrane prevented leprosy work from falling on evil days. When Congress re-assumed power, one of the first things which Mrs. Lakshmi Pathy, the Health Minister, did, was to appoint an *Ad Hoc* Committee on leprosy. Sri A. B. Shetty who succeeded her, successfully continued and concluded the deliberations of the *Ad Hoc* Committee, quickly gave effect to some of its recommendations and appointed also a Leprosy Institutions Enquiry Committee. Dr. Rajan now rethinks the whole question, and on basis of existing work, is about to put in operation policies calculated to end leprosy at no distant date.

There are large advantages in the existing situation which we can exploit towards the furtherance of a control policy. We have 17 leprosy institutions housing about 3,226 cases; one of these the Government Lady Willingdon Leprosy Sanatorium, is regarded by the Report "Leprosy and its Control (1941)" by the Government of India as the best and most well-organised sanatorium and as a model. We have well-run out-patient departments at many of our City and district hospitals. The Corporation of Madras runs some very good clinics and is anxious to help in leprosy control in the City. We have made considerable advances in publicity and welfare work. Government alone employs over 20 medical graduates for leprosy work and there are at least an equal number of medical workers in the service of voluntary agencies. The Hind Kusht Nivaran Sangh is rousing intelligent and planned local efforts in the districts. It behoves us therefore to use our men and money so as not only to relieve leprosy but also to control it. In short, we must have a master plan. It is this master plan that our Health Minister has now put forth before the workers and the public.

Basis of Master Plan

The policy is to make prevention and control the predominant objective. It follows that our leprosy institutions should take in only infective cases, thus materially contributing to control. It is realised that even on this basis, several advanced infective cases will be refused admission. So extra accommodation will be necessary for combing out the more advanced infective cases and segregating them. Since leprologists compute the average life of an advanced lepromatous case in whom the disease has taken root and on the whole a remorseless course, to be just another fifteen years or so, we may plan additional *kacha* accommodation that will last for about fifteen years. For though the value of night segregation or partial segregation is fully realised by workers, it is also realised that the largest amount of preventive safety and the best chances of cure by scientific treatment, orthopaedic and occupational therapy is to be had in a sanatorium.

Dr. Rajan and some of us who are his colleagues in this undertaking, are in the position in which Bernard Shaw was, when a pair of lovers who had read his "Getting Married" went up to him to ask if they could live as man and wife without marrying. He said promptly, "First go to a church and marry." He was more conservative than his forward theory. So are we. We realise the value of spreading the idea of partial segregation, but we prefer to give, if possible, an infective patient the security of congenial surroundings and the certainty of the best treatment in a sanatorium and also to give his relations and neighbours especially the children, the maximum freedom from danger. Dr. Rajan put the whole conception admirably in the following words: "Night segregation should only be complementary to institutional treatment, pending admission into a sanatorium, and not an end in itself. Night segregation should be something

like an ante-room to a sanatorium where patients on the waiting list for admission can be given some treatment and enabled to avoid contact with those near and dear to them, which is dangerous to the latter."

Aspects of Leprosy Control

Now let us consider the various aspects of leprosy control as viewed from this master plan point of view.

Legislation.—While harsh or wide compulsory legislation is not to be contemplated, it is felt some kind of legislation applicable to areas of endemicity where relief and control measures are put in operation is necessary. The aim of the legislation will be to protect those continually thrown in contact with infective cases, especially children. Legislation should be resorted to if only to see that our schemes of control are not vitiated by the recalcitrant cases who show no concern either for their own improvement or for the protection of their relations and neighbours.

A New Role for Sanatoria.—Sanatoria must become the centres of preventive work. To put it in the words of the Minister: "To make a good beginning it seems essential that a rapid survey should be conducted in the neighbourhood of each sanatorium, infective cases detected and taken into the sanatorium. Simultaneously the Hindu Kshatriya Nivaran Sangh, the Public Health staff of Government and social workers may carry on intensive educational and persuasive propaganda in the area, to ensure that infective cases are not left in the village or town constituting a source of danger to the persons with whom they come into close contact." A good beginning has been made by interesting the Public Health Department in leprosy by appointing Health Officers in charge of State and District Survey Units and also by sanctioning a Leprosy Prevention Health Inspector for Shirva in South Kanara.

Training.—Medical students, Medical Officers, Public Health staff and social welfare workers should receive adequate training.

Research.—In addition to therapeutic research, research in methods of control will be necessary. An endemic rural area or areas will be chosen for working out a control scheme as a research project so that the part played by segregation, by hydnocarpus therapy and by sulphone drugs in the control of leprosy may be assessed in their proper setting and practical methods of control may be generally adopted.

Treatment.—The routine treatment to be adopted at the out-patient clinics and the sanatoria will be treatment by hydnocarpus oil and its derivatives. As it is now found by authorities that failure in the past of these and inadequate dosage efforts will now be made to make the oil treatment satisfactory. Trained injectors will be posted at important out-patient and in-patient centres in order that the doctor may find it possible to give intradermal injections of the oil which alone can help to make the treatment effective.

The sulphone drugs would also be used under controlled conditions in suitable cases, especially the advanced cases which do not respond satisfactorily enough

to oil therapy. Already there are rules permitting the treatment of non-infective cases for surgical and medical needs in the general wards of any hospital. The medical officers are giving effects this rule. It is hoped that as the practice becomes more and more popular, the needs of the neural cases can be met in out-patient clinics and general hospitals and that by getting them to come early for treatment, most of them may be treated and guided back to life without much crippling or deformity.

Publicity and Welfare.—The Madras Government is the first to create a Publicity and Welfare Organisation for leprosy. There is more insistent and enlightened propaganda on leprosy in our State than elsewhere. In occupational therapy and welfare work also we lead. Sri N. Ramakrishnan, a social worker of rare devotion, has organised the welfare work and occupational therapy in the Government Lady Willingdon Leprosy Sanatorium at Chingleput on a scale and quality which have had an inspiring effect on other Sanatoria in our State and elsewhere.

Let us hope that Dr. Rajan's comprehensive and central attack on leprosy will soon be in the process of action and movement. In the meanwhile, the public will be rendering invaluable service by understanding the plan and by giving it the needed co-operation. For leprosy control depends for its success altogether on a well educated and enlightened public opinion.

(By courtesy A.I.R. Madras)

Votes for Primary School Teachers

It was stated in the Press Note No. 107, dated 6th June 1950 that teachers in the Primary Department of a Secondary School are not entitled to be registered as voters in the teachers' constituencies of the Madras Legislative Council, under the New Constitution. On further examination, the Government find that such teachers cannot be excluded from registration. Every person who has been for a total period of at least three years, within the six years immediately preceding 1st April 1950, engaged in teaching in any educational institution not lower in standard than that of a secondary school is entitled to be registered as a voter in the teachers' constituency, notwithstanding that such person is a teacher in the Primary Department or any other department of the institution. Every such person can apply for inclusion as a voter in the electoral rolls.

Board of Film Censors

The Board of Film Censors, Madras, examined 260 films during the year 1949, the total footage being 670,355. Sixty Special Boards were constituted for the examination of films. The working of the Board during the year was on the whole satisfactory.

The Board of Examiners for Cinema Operators was reconstituted on the 15th March 1949 for a term of two years. Two hundred and eighty-seven candidates were called for examination held during the year and 165 were declared successful. The total number of candidates certified so far is 1,962.

Illicit Sale and Consumption of Drugs

It has been brought to the notice of the Government that ever since the introduction of total Prohibition, there has been a phenomenal increase in the sale of cocaine in this State due to illicit consumption. An investigation disclosed that large quantities of cocaine hydrochloride are being purchased through prescriptions issued by and in the names of doctors, real and bogus, and that many doctors do not maintain proper accounts as required in the Madras Manufactured Drugs Rules, 1932, as subsequently amended. The Government desire to draw the attention of all medical practitioners to these rules which regulate the import, export, transport, possession and sale of manufactured drugs other than prepared opium. Under the rules, only an approved practitioner can possess, and that too in limited quantities, manufactured drugs other than prepared opium for use in his practice, but not for sale. For possession of larger quantities, special authorisation from the Collector, should be obtained.

Every approved practitioner is required, under the rules, to maintain an account in Form M. 5 appended thereto in respect of the drugs possessed by him and such accounts should be open to inspection by departmental

officers. The officers empowered in this behalf are any officer of the Police department not below the rank of an Inspector and any officer of the Prohibition department not below the rank of an Assistant Prohibition Officer in Prohibition districts and, elsewhere, any officer of the Excise department not below the rank of an Assistant Inspector. Anyone who contravenes either the licence conditions or the rules will be liable for prosecution and punishment in accordance with the provisions in the Dangerous Drugs Act (Central Act II of 1930).

For the general well-being of the large masses of people, the Government have embarked on a policy of total Prohibition. The Government urge upon all approved medical practitioners to co-operate with them in combating the illicit sale and consumption of the drugs. Failure on the part of doctors to maintain correct and proper accounts and to abide by the conditions of licences will be seriously viewed, and the Government will not hesitate to take drastic action against defaulters. The Government, however, hope that occasions for such action will be rare and that with the willing co-operation of the medical profession the illicit sale and consumption of these dangerous drugs will be completely eradicated in the shortest time possible.

Sale of Quinine

Notification by the Government of Madras

It is hereby notified for the information of the public generally and the Medical Profession and Chemists and Druggists in particular, that the control over Government manufactured quinine and other cinchona products has been removed and that they are available for sale without any restriction whatever.

The following quinine products are manufactured by the Government of Madras in the Quinine Factory at Naduvattam and made available for sale to all including the general public without any restriction whatever. Out of these products, those grouped under "A" are distributed from the Central Jail, Coimbatore, and those grouped under "B" are supplied direct from the Quinine Factory, Naduvattam.

"A"

Quinine Sulphate powder B.P. 1932.
Quinine Sulphate powder B.P. 1948 and I.P.L. 1946.
Quinine Sulphate tablets.
Quinine Hydrochloride powder B.P. 1948.
Quinine Hydrochloride tablets.
Cinchona Febrifuge powder I.P.L. 1946.
Cinchona Febrifuge tablets.
Totaquina powder B.P. 1948.
Totaquina tablets.

"B"

Quinine Bihydrochloride B.P. 1948.
Quinine Salicylate powder B.P.C. 1949.
Quinine Hydrobromide powder B.P.C. 1949.
Quinine Bihydrobromide powder B.P.C. 1934.
Quinine Bisulphate powder B.P. 1948.

For further particulars, please apply to the Superintendent, Central Jail, Coimbatore, or the Manufacturing Chemist, Government Quinine Factory, Naduvattam, as the case may be.

A. Y. SWAMY,
Director, Cinchona Department.

The Role of Naval Aviation

Naval aircraft have today become an indispensable part of the Navy. The first World War witnessed the coming of aircraft as such; and the Royal Navy established a naval air service of considerable dimensions and efficiency.

In the meanwhile, however, the United States and Japan made considerable headway in respect of Naval Aviation. In reporting on the naval operations against Japan, Admiral E. J. King of the U. S. Navy stated that "the uniform success which characterized American naval air operations was unmistakably the result of an organization which was based on the conviction that naval air operations should be planned, directed and executed by Naval officers who are naval aviators."

Future wars will be amphibious, rather "triphobic". Their successful conduct will demand the combined efforts of the Army, Navy and the Air Force. In all combined operations beyond the range of land-based fighter planes, the duty of naval aviation will be to secure air superiority and give air protection to the Army until such time as adequate airfields are secured and the air force can operate.

Specialized Training

To fit a naval airman for the stern test of war, his training must be of a highly specialized nature. In addition to carrying out his purely naval duties, a naval pilot must be capable of fighting alongside his Air Force counterparts in operations over the land. His is a dual role and one that is acquired only after many years of training.

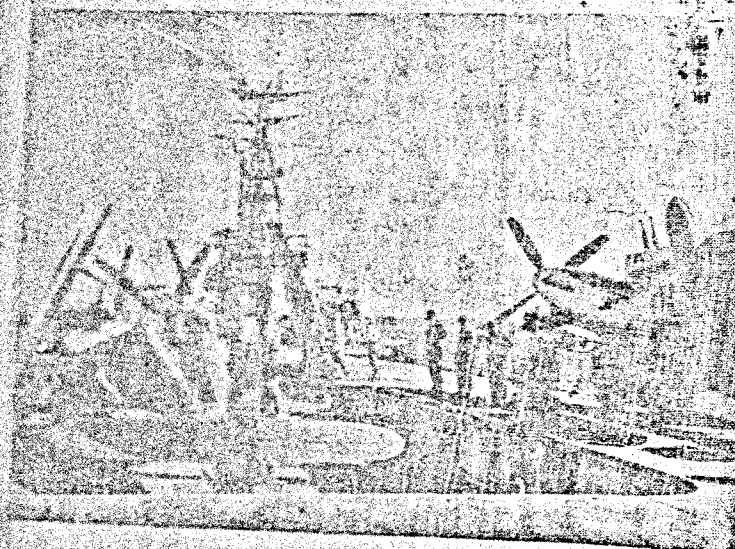
Certain characteristics distinguish naval aircraft. They normally have folding wings, thus allowing a greater number of aircraft to be carried in aircraft carriers and are also specially strengthened to take an arrestor hook. The hook on touching down on an aircraft carrier's deck, catches a wire which mechanically brings the aircraft to a stop in about two hundred feet.

Since the attainment of freedom, the Government of India has been fully aware of its added responsibilities as regards the naval defence of India. It has directed that Free India's Navy should be a balanced Task Force comprising aircraft carriers, cruisers, destroyers and ancillary flotillas. This is a long-term policy and will be implemented as part of a ten-year plan.

Modern naval aircraft compare in all respects favourably in performance with aircraft of the Air Force. In some cases they are even superior in their specialized role. With the growth of India's fighting navy, a steady stream of officers and ratings, trained in all aspects of air-warfare and aircraft maintenance, will take their place in the complex machinery that goes to make the Navy.

Cane Jaggery

The ban on the movement of cane jaggery from Madras State to places outside has been lifted with effect from 8th May 1950.



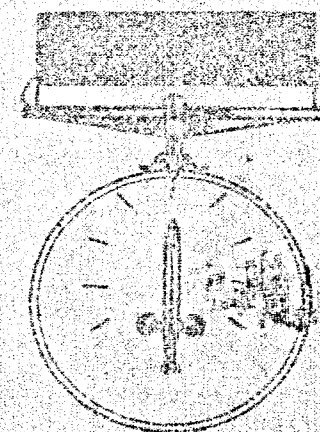
A naval aircraft with its folding wings being lowered by derrick and hoisted by the aircraft carrier H.M.A.S. 'SYDNEY'.

A naval aircraft makes deck-landing on board the aircraft carrier H.M.A.S. 'SYDNEY'.

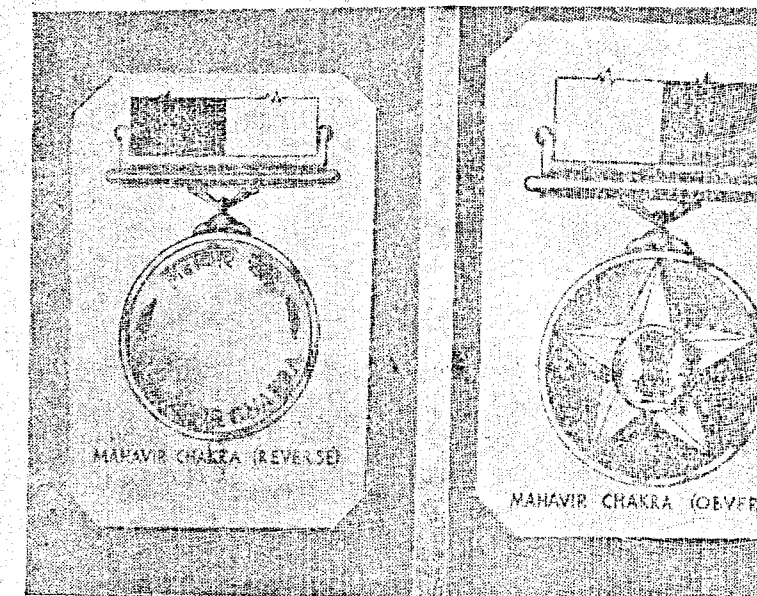


Awards For Gallantry

Three new awards for gallantry in the presence of enemy were instituted by the President on January 26, 1950, the day India was constituted as an Independent Sovereign Republic. These awards are the Param Vir Chakra, Mahavir Chakra and Vir Chakra.

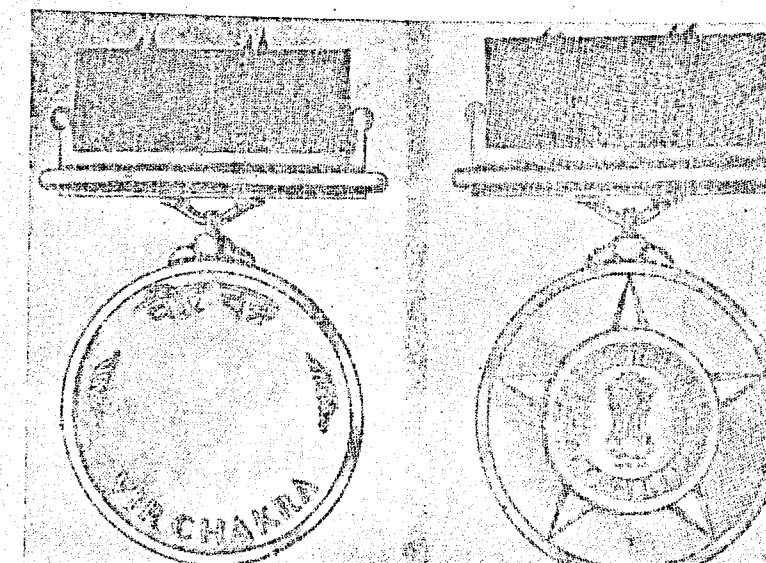


General Service Medal 1947. This is the first Campaign Medal instituted by the President and is awarded to the appropriate clasp signifying the operation. The award of a clasp for Kashmir operations to be worn with the Medal has also been announced.



Mahavir Chakra. This is awarded for acts of gallantry in the presence of the enemy. This comes next to the Param Vir Chakra.

Vir Chakra. This is awarded for acts of gallantry and is the third highest award.



Drugget Industry

The Joint Drugget Industry Board constituted for Mysore and Madras States to reorganise the drugget industry on rational lines has, in consultation with the Ministry of Industry and Supply, Government of India, drawn up provisional specifications for druggets intended for export. It has been decided to enforce the standard specifications and ban with effect from 1st July 1950 export of druggets to U.S.A. which do not conform to the specifications. Copies of the provisional standard specifications have already been supplied to most of the drugget manufacturers in this State and one copy is kept with the Principal Government Textile Institute, who is the certifying authority. Applications for certification of druggets should reach the Principal Government Textile Institute, Madras, at least one week before the date of export.

Jail Reforms Committee

The Government have constituted a Committee to consider the question of the improvements to be made in administration of jails in this State and to suggest suitable reforms for the purpose.

The personnel of the Committee is as follows:

1. Sri K. S. Krishnaswamy Iyengar, Retired Judge, High Court, Madras (Chairman).
2. The Surgeon-General with the Government of Madras.
3. The Director of Public Instruction, Madras.
4. The Director of Public Health, Madras.
5. The Director of Agriculture, Madras.
6. The Director of Industries and Commerce, Madras.
7. The Inspector-General of Prisons, Madras.
8. The Chief Inspector of Certified Schools, Madras.
9. The Provincial Fika Development Officer, Madras.
10. Sri G. Janakiram Chetty.
11. Dr. (Mrs.) Soundaram Ramachandran.
12. Sri G. Venkata Reddi, B.A., B.L., M.L.C.
13. Sri C. K. Govindan Nair, M. L. A.

Sri P. T. Sreekumara Panikkar, acting Additional Assistant Secretary to Government, Home Department, will be the Secretary to the Committee.

The Committee has been asked to examine the existing provisions of law and rules relating to jails administration in the State and to suggest changes with a view to improving the methods of dealing with the prisoners in jails with specific reference, among other things, to their training in useful and productive crafts and imparting to them literary and adult education which would enable them to be useful economically and be self-relying members of society.

The Committee will also examine the defects in the Prisons Act, 1894, and the Prisoners Act, 1900, and make specific recommendations as to which of the provisions in these enactments should be amended.

The Committee will also tackle the question of juvenile delinquency and suggest measures to make jails self-supporting. It is likely that the Committee will visit several jails and examine witnesses and record evidence.

Wholesale and Retail Dealers in Textiles

In November 1949 the Government ordered the replacement of separate wholesale dealers and retail dealers by a single class of dealers who might do either wholesale or retail business in cloth or both. In actual practice there had to be a wholesaler who could buy in lots and distribute them to retailers in small quantities. Under the system of one class of dealers, the retailers were not able to get Bombay Surplus Area Cloth at reasonable margins. The Director of Controlled Commodities expressed the fear that there would be a breakdown of cloth trade if separate wholesalers and retailers with separate margins of profit were not revived.

As it was not possible to fix fair margins of profit for the wholesalers and retailers within the small total margin of 14 per cent allowed to the trade, with the levy of sales-tax at every stage of sale, the Director of Controlled Commodities recommended that the sale by the whole consignee in respect of the Bombay Surplus Area cloth to the wholesale dealer may be exempted from the levy of sales-tax. The Government accepted his recommendation and have issued orders accordingly, reviving the two classes of wholesalers and retailers with effect from 1st June 1950 and exempting the sale by the wholesale consignee to the wholesale dealer from levy of sales tax.

Passports for Burma

The Government of Burma have decided to admit into Burma with effect from 1st July 1950 only persons holding valid national passports duly visaed by a competent representative of the Government of Burma. Immigration permits and Evacuee Identity Certificates issued to Indian Citizens in Burma will cease to be valid after the 30th June 1950. All Indian Citizens intending to proceed to Burma so as to arrive there on or after 1st July 1950 are therefore advised to be in possession of valid Indian Passports duly visaed for Burma.

South India Teacher's Union

The Government have permitted the South India Teachers' Union to represent all District Teachers' Guilds and Teachers' Union in the State for the purpose of taking to the notice of Government representations made by individual Guilds and Unions.

Orders have also been issued permitting teachers employed in educational institutions under Government and local bodies, to become members of the South India Teachers' Union and to participate in its activities on the academic side subject to the following conditions:—

- (i) the work should not affect their normal official duties,
- (ii) they should not take part in any controversy or criticise the policy of Government,
- (iii) they should not handle the funds of the Union, and
- (iv) they should not become office-bearers of the Union or take part in the collection of funds.

Monthly Digest of Economics and Statistics

The Monthly Digest of Economic and Statistics, Madras State, has just been issued by the Economic Adviser to Government of Madras. It aims at presenting to the public statistics relating to Agriculture, Industry, Public, Finance, Cost of Living Index Numbers, Wholesale and Retail prices of various commodities, Imports and Exports, Public Health, Labour, Animal Husbandry, Electricity, Employment, etc.

This publication brings together for the first time statistics collected from diverse sources; the Heads of Departments of the Central and State Governments, the Agents of the Imperial Bank of India at important commercial and industrial centres, the Madras Stock Exchange Association, Ltd., etc. This will be useful to administrators, Chambers of Commerce, trades' associations, business houses, industrialists, trade unions, research institutions, academic bodies, publicists, etc.

The publication price is Re. 1-2-0 per copy or Rs. 6-8-0 half yearly and is obtainable from the Superintendent, Government Press, Mount Road, Madras-2.

Citizenship Restrictions Relaxed

Under the rules framed for appointment to posts in the State Services, no candidates other than a citizen of India shall except with the previous sanction of the State Government and except in accordance with such conditions and restrictions as they may lay down, be included in any list of approved candidates. Such sanction will not however be accorded unless the State Government are satisfied that a sufficient number of such citizens who are qualified and suitable is not available for appointment.

The Government have now decided that an exception to the above rule should be made in the case of subjects of the Portuguese and French possessions in India as they have close ties and associations with India and that they should be permitted to compete on equal terms with the citizens of the Indian Union. The Secretary, Madras Public Service Commission, and other selecting authorities have been requested to deal with the case of each such applicant on its merits and to address Government for relaxation of the relevant rules, if any such person is otherwise found eligible for selection.

Admission to Veterinary College

The Government have accepted the proposal of the Director of Animal Husbandry to admit 80 students inclusive of War Service Candidates and outsiders for the B.V.Sc. Degree Course at the Madras Veterinary College and to admit 50 students for the Veterinary and Livestock Inspectors Course during 1950-51.

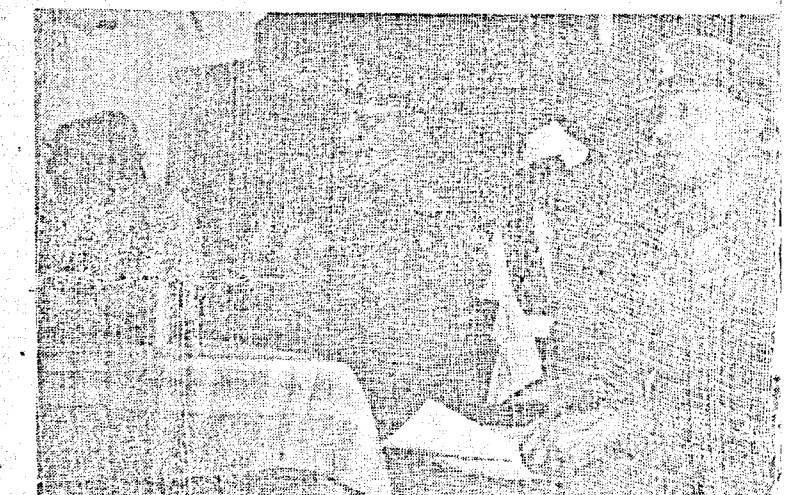
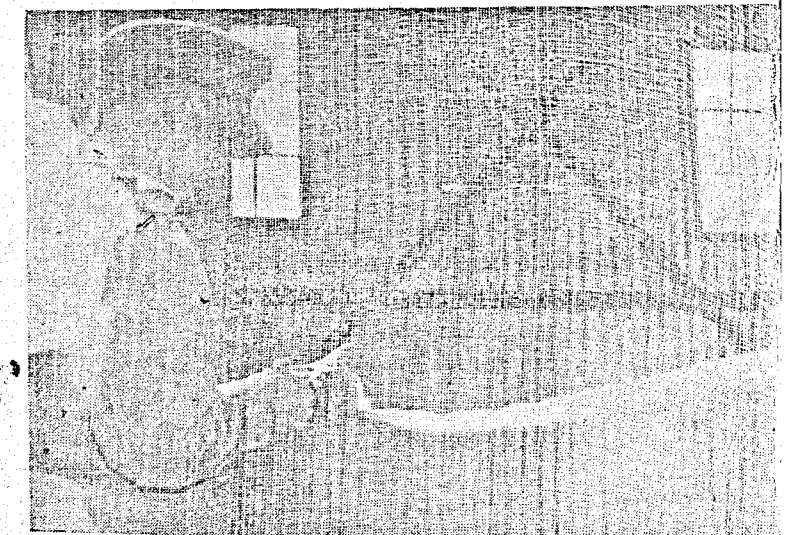
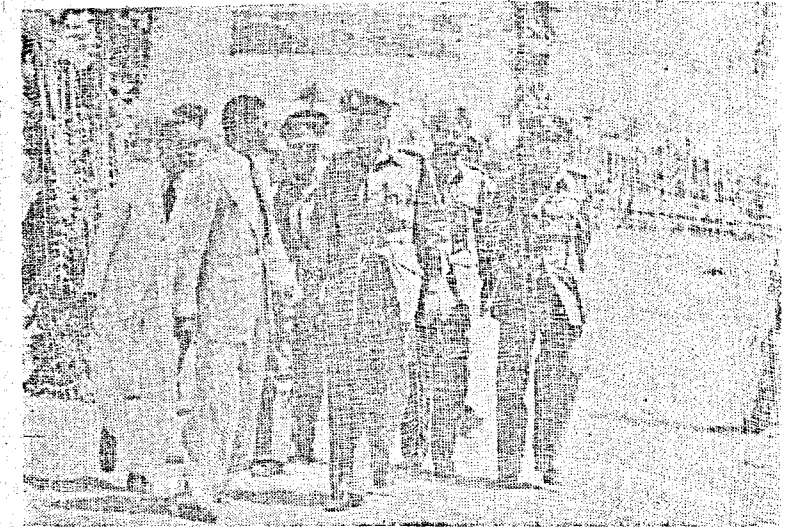
Pictures at right—

Top.—Recently General K. M. Cariappa, Commander-in-Chief of India, visited the Tiruchirappalli District Co-operative Motor Transport Society for Ex-servicemen, one of the thirteen co-operative motor transport societies in the State.

Centre.—General Cariappa opened the new premises of the society. He assured the ex-servicemen that he would do his best to relieve their distress in respect of both finance and petrol.

Bottom.—The C-in-C said: "I have been very much impressed with the achievement of this company in the very short time it has been in being".

CO-OPERATION FOR EX-SERVICE MEN



Thefts of Textile Bales from Running Trains

Thefts of textile bales from running goods trains had been repeatedly occurring for some time past between Rajahmundry and Waltair on the M. & S.M. Railway. The Railway authorities were naturally getting exercised over the matter, as both the manner and the number of these offences *prima facie* indicated the possible complicity of some of the Railway employees themselves. For this very reason, among others, these crimes mostly went either unreported or undetected, the missing goods being eventually treated as loss or shortage.

This state of affairs did not, however, last long, thanks to the vigilance of the Police. On 23rd and 24th January 1949, the local Police Sub-Inspector of Anakapalli, Visakhapatnam South District, seized on suspicion some bales of yarn and khaki drill from the local merchants. This seizure proved to be lucky as it changed the tide of events and provided further clues to work upon. Further investigation made in conjunction with the Railway Police, Waltair, led to interesting revelations of the complicity of a number of Railway and local officials and other black-marketers concerned in the racket, in addition to the further recovery of textile goods, altogether valued at about Rs. 50,000. These recoveries led to the registration of three separate cases, the further investigation of which was entrusted to the Crime Branch, C.I.D., Madras, as the cases being important and complicated required efficient and expert handling.

Technique of Conspiracy

A thorough and sustained investigation made by the C.I.D., revealed that all these offences were committed in pursuance of a criminal conspiracy between the Railway Guards, Engine Drivers, Firemen and Hamalis on the one

hand and textile merchants, blackmarketers of Anakapalli, Rajahmundry and other places on the other. The technique of the plan evolved by the conspirators for their own nefarious ends is rather interesting. Advance intimation by code telegrams is sent by the Railway officers about the despatch of the textile goods. To enable identification of the particular goods train carrying the goods, the headlight of the engine is switched off at a pre-arranged place, invariably an out of the way place between two Railway stations; the goods train is stopped on a signal being given by the flash of a torchlight by the other conspirators, standing by with lorries or carts kept ready for transporting the goods. One of the engine crew or some other Railway employee, specially trained in manipulating the seals on wagons, then breaks open the wagon and after unloading the textile bales, dexterously reseals the wagon, so as to preclude any suspicion. The train then proceeds on her onward journey, while the other conspirators help themselves to the textile goods illegally obtained by them and sell them in the blackmarket.

All the three offences were committed in this manner on 22nd November 1948, 3rd January 1949 and 22nd January 1949 respectively, when the goods trains were stopped between Tadi and Duvvada Railway stations and textile bales removed. Altogether 44 accused were charged by the Police with offences punishable under Sections 120-B, 381, 461, 411, 414 read with 109 I.P.C. The Special First Class Magistrate who tried these cases convicted as many as 35 accused and sentenced them to various terms of imprisonment ranging from 9 to 24 months. In convicting and sentencing the accused, the learned Magistrate complimented the police on their good work in detecting these crimes.

Government and Industry

(Continued from page 6)

There will be a substantial deficit on the side of capital expenditure, which has yet to be met.

"Support Loan Operation"

We therefore propose to go into the open market for a loan some time towards the middle of the year. What better co-operation can the moneyed men of the State offer, than by endeavouring to make the Government's loan operation a success? The power side of our capital programme is intended primarily to promote industries. The irrigation side is intended to improve the standard of living of the agricultural population, which will immediately reflect itself in increased trade. Here then is an opportunity for big businessmen to help the Government and their industry to help themselves. Could it be beyond market and so influenced conditions elsewhere, whereby the flow of funds of money can flow into our Govern-

ment's loan? People may talk vaguely of the extravagance of our administration, but comprehending people can see that we, in this State, are still adhering to our traditional frugality in public finance.

Even though we have invested about Rs. 25 crores on productive capital expenditure, during the post-war years, we have borrowed only Rs. 13 crores for that purpose, which means that the balance came out of ordinary revenues. And in spite of the adverse seasons, which dogged our path for three consecutive years, our revenue budgets closed up with a substantial surplus during the period and our reserves still remain practically untouched.

(Adapted from a speech delivered by the Hon'ble Sri P. S. Kumaraswami Raja, Chief Minister of Madras, at the Fortieth Annual Meeting of the Southern India Chamber of Commerce.)

Corruption Cases Among Government Servants

February 1950

During the month of February 1950, corruption among Government servants was brought to notice against 325 persons including those against whom proceedings were pending at the end of the previous month. The names and designations of the ten persons who were awarded severe punishments are as follows:

I

CASES DEALT WITH BY THE TRIBUNAL

A. Gazetted Officers

K. Muhammad, Permanent Divisional Inspector of Schools	.. ..	Compulsorily retired.
S. M. Abdul Sathar, Officiating Deputy Superintendent of Police	.. ..	Dismissed.

B. Non-Gazetted Officers

M. K. Varadachari, Manager, Office of Divisional Inspector of Schools, Mathurai.	Dismissed.
--	------------

II

CASES DEALT WITH BY DEPARTMENTAL AUTHORITIES

A. Non-Gazetted Officers

B. Kurmanaikulu, Constable, Visakhapatnam South District	.. ..	Compulsorily retired.
K. M. Viswanatha Mudali, Railway Police Constable, Government Railway Police, Madras	.. ..	Dismissed.
Jayaraj, Railway Police Constable, Government Railway Police, Tiruchirappalli	.. ..	Do.
Jayaraman, Temporary Prohibition Guard, Madras District	.. ..	Discharged from service.
Tiruvengadam, Temporary Prohibition Guard, Madras District	.. ..	Do.

B. Inferior Servants

A. Anser Batcha, Peon, Office of the Director of Controlled Commodities, Madras	.. ..	Removed from service.
S. Subramanian Servai, Acting Peon, Assistant Commercial Tax Officer's Office, Ramanathapuram	.. ..	Do.

March 1950

During the month of March 1950, corruption among Government servants was brought to notice against 329 persons including those against whom proceedings were pending at the end of the previous month. The names and designations of the seven persons who were awarded severe punishments are as follows:—

I

CASES DEALT WITH BY THE TRIBUNAL

A. Gazetted Officers—Nil.

B. Non-Gazetted Officers

Dr. M. Krishnamurthi, Second-Class Health Officer	.. ..	Dismissed.
L. N. Ramarathnam Iyer, Deputy Inspector of Schools, Pollachi	.. ..	Compulsorily retired.

II

CASES DEALT WITH BY DEPARTMENTAL AUTHORITIES

A. Non-Gazetted Officers

Nasiruddin, Constable, Anantapur District	.. ..	Dismissed.
L. Sankarasubba Naidu, Sub-Inspector of Police, Tirunelveli District	.. ..	Do.
Kunhiraman Nair, Head Constable, Malabar District	.. ..	Do.
Ansar Basha, Prohibition Guard, Saidapet	.. ..	Do.
P. Simachalam, Prohibition Guard, Visakhapatnam District	.. ..	Discharged from Service.

B. Inferior Servants—Nil.

Fire-Fighting and the People

The Government of Madras are straining every nerve to promote the well-being of the people, rich and poor alike. They have at heart the social, cultural and economic advancement of the people and their activities to ensure this are multifarious. The continuance of the Madras Fire Service and its further expansion is one of such activities.

The Madras Fire Service which came into existence in the wake of World War II has come soon into prominence by its useful work which is purely humanitarian. Fire fighting has been recognised by many countries in the world for ages as a social science and it has been given its rightful place. During the recent war in which all the three fighting forces, namely, the Army, Navy and Air Force of every country took a prominent part, the paramount need for a Fire Service to combat fires started by enemy bombing was felt and recognised. Immediate steps were, as a consequence, taken to enlarge and train efficiently the already existing private and professional fire brigades and to organise an efficient service on a large scale where they did not exist. Such brigades formed by large-scale recruitment were trained to cope with the situation that arose.

Every country realised the necessity to have a central control, appreciating the difficulties that have to be encountered if different brigades or services acted under different commands. It was universally recognised that a central authority was necessary to ensure efficiency and speed and therefore in every country the various services were brought under one single authority. The Fire Service came to be regarded as the 'Fourth Arm' in every country and it fought in co-ordination with the other three fighting forces.

Origins in Madras

It has already been stated that the Madras Fire Service was born in the wake of World War II. It will be interesting to know a little about its origin in order to appreciate it in proper perspective. Until 1890 when four Henry Weather Vane type steam fire engines were commissioned in the City of Madras, fire fighting on modern lines utilising machinery was generally unknown in India and particularly in Madras Province. Prior to 1890 manpower only was employed to carry water in pots, vessels and buckets.

In case of a major fire the people had nothing to look to, to fight it or to prevent it from spreading. They were left to the mercy of Fate. After the four steam-engines were received, fire fighting improved to a certain extent, but these engines had their own drawbacks. It took a long time to boil the water in the boiler to make the steam which was required for throwing the water at the fire. There was another difficulty also. These engines had to be handled by men and taken to the scene of fire, which meant delay in reaching the scene of action.

In later years, i.e., between the period 1914-1917, three motor engines were imported from England by the Corporation. These had petrol-driven motor engines which worked the pumps and threw water under high pressure or force as you call it. In addition to the above, a 50-foot ladder was also imported and it was carried on one of the fire engines. In 1934 an S.P.U. was received. It is a big motor lorry to which a pump is fixed in the rear. This pump throws out water under high pressure. Both the lorry and the pump are worked by the engine of the lorry. Thus it is seen that an advance is made in the method of fire fighting. Petrol-driven fire engines start quickly and supply water for fire fighting in no time. This is definitely a step forward as compared to steam engine days. The Corporation Fire Service, popularly known as the Madras Fire Brigade, did its utmost to help the citizens of Madras in the matter of affording fire protection since 1890.

A.R.P. and Civil Defence Measures

The Madras Fire Service Department was originally constituted under Section 3 of the A.R.P. Ordinance IV of 1941 as an adjunct to the A.R.P. and Civil Defence Services. As a result of the measures taken for civil defence during the beginning of 1941, the organisation of the Madras Fire Service was extended to other towns which were classified for purposes of Civil Defence measures. In November 1942 the Government decided that fire fighting should be separated from the A.R.P. entirely and a separate Fire Service Department under the control of the Director of Fire Services was created. The history of the Madras Fire Service would be incomplete without special mention about the officers and men of the Auxiliary Fire Service. The Auxiliary Fire Service was formed in 1941 by volunteers who were prepared to give their services without remuneration for the protection of Madras City against fires caused by enemy action. Although the formation and training of the Auxiliary Fire Service, they did not confine themselves to these activities alone, but attended all fires which occurred in Madras City during their period of service caused other than by enemy action.

A total of 58 officers and men of the National Fire Service arrived in Madras from England in four batches. During the year 1942-43 the personnel were given intensive training in fire fighting and the organization was placed on a more permanent footing. Early in 1943 the Fire Service was operating in 24 towns including Madras City. Consequent on the improvement during war period it

Appeal to the Public

We appeal to the public to extend their full co-operation in a greater measure. Fires wait for no man. All fires are small in the beginning. If undetected or neglected they prove dangerous to life and property. In the earlier stages with little courage one can easily tackle the fire by pouring water or throwing sand or dry earth. We have had some instances of false fire calls apparently for fun and we appeal to the general public not to permit any one to play such tricks.

Immediately on the outbreak of fire, dial 99 and call for Fire Service. While the units proceed to scene of fire with fire alarm bells, it is necessary that they should be given free passage. Please, therefore, stop your car or bus on the extreme left and allow the fire units free access to proceed to the fire spot as expeditiously as possible. That is the time when even a second counts and even least delay will mean destruction of property and valuable human lives. Once more we appeal to you to fully co-operate with us and thereby enable us to serve the public well.

for the firemen to take the branch pipe over a high wall or over a roof of a small building or into the first or second floor of a building when the ground floor of the building is on fire. Ladders will be very useful then. As soon as this Trailer Pump Unit goes to a fire, the nearest water source is ascertained and the pump is taken to the water source by the tender. Then the pump is disconnected from the tender and pushed by the firemen, near to the water source.

By a process called priming, water is drawn from the water source through the suction tube into the pump when the engine is started. Water that now comes into the pump has great pressure and through the deliveries and through the hoses to which are connected the branch pipes water comes out with great pressure. From the branch pipe the water goes to a distance of 75 feet or more. In Madras City there are two big ladders which are carried on Fire Tenders. These ladders can be extended to a height of 50 feet by the firemen after removing them from the Fire Tender. The ladders have four wheels and they can be pushed to the place where they have to

A fleet of fire-fighting vehicles



was decided that the surplus equipment necessary for war time protection should be retained after the war and used for protection of other towns in the Presidency, which hitherto had no fire fighting arrangements. The Government therefore decided to retain the Fire Service as a peacetime organisation and ultimately to function in Madras City and in 81 Municipalities throughout the Province. The surplus ambulances belonging to the A.R.P. were also allotted to this Department, as is done in many towns of the United Kingdom, to enable the Fire Service to run an emergency ambulance service for the benefit of the public. Today there are 74 fire stations and 411 fire tenders, fire pumps and other vehicles employed for fire fighting in Madras State by virtue of the policy pursued by the Government since 1942.

Mobile Tank Unit

Each fire station has two fire units and one ambulance. One fire unit is called the Mobile Tank Unit. The name itself will suggest what exactly it is. It is a motor vehicle which carries a tank containing 600 gallons of water. The tank is behind the driver's seat. In front of the engine is the pump which gets water from the tank behind the driver's seat through a pipe. When the engine is started after engaging a lever the pump also starts working and throws out water with pressure popularly known as force. This pump throws out water at the rate of 180 to 200 gallons per minute. Above the pump are two deliveries through which water is thrown out from the pump. To these deliveries long canvas hoses or rubber lined hoses which are also like pipes are connected to take water from the pump to the fire spot. The water from these hoses comes out with greater pressure. To increase the pressure further, branch pipes narrow at one end, are fitted to the hoses.

When water comes out through these pipes, it not only has great force and striking power behind it, but it will go to a distance of about 75 feet. This enables us to throw water on to a big fire or a fire on the roof or upper floor of a house, however high the roof or the upper floor may be. After the water is emptied in this tank the vehicle can get the tank refilled. The Mobile Tank Unit is the first unit to come to a fire and within 20 seconds it will give water for fighting a fire. It carries on it 1,200 feet of hoses which will allow the firemen to take water to a long distance. It also carries different kinds of branch pipes, nozzles and other equipment and tools such as pickaxes, shovels, saws, crowbars, ropes, etc., which are required very frequently to open a locked door, to enter a building when fire is inside or to demolish walls and gates, to allow the firemen and the fire engines to go inside. It also carries lanterns, torch lights and buckets.

Trailer Pump Unit

The other fire unit in a station is called the Trailer Pump Unit. This has a lorry which is called the fire tender. Behind it is attached a large fire trailer pump which throws out water at the rate of 350 to 500 gallon per minute. The Fire Tender also carries 2,000 feet of hoses and different kinds of branch pipes, nozzles and other equipment and tools which the Mobile Tank Unit carries. Besides, the Trailer Pump Unit will carry a ladder on the top of the Fire Tender. Sometimes it becomes necessary

Fire-Fighting in Pictures

(Third and fourth cover pages)

The collapsible ladder is placed in position, a daring rescue is effected and the victim is taken by stretcher to the ambulance. The hoses are connected to the water source . . . and then the flames are fought in a cool and organised manner. Soon the fire is completely put out.

are called upon to enter rooms, buildings or underground passages filled with smoke or poisonous gases to rescue people trapped therein or to save valuable property. The oxygen breathing sets and the compressed air breathing sets which the Fire Service use will then come handy and our men put on these and perform the duties required of them fearlessly. They are also trained in first aid which knowledge they make use of before an ambulance is called in and the casualty is rushed to the hospital. During the fire every attempt is made to save as much property as possible from damage. The Fire Service does not leave the spot until every burning ember is completely put out. Later, the men assist the residents in bringing out of the premises the property that is saved from destruction by fire.

The Fire Service has the ambulance wing also and it is always at the disposal of the public. The ambulance is mainly intended to rush to hospitals persons involved in accidents at public places free of charge. The poor and destitute are entitled to a free conveyance to and from a hospital.

Breakdown Lorry

The Fire Service also maintains what is called Breakdown Lorry for the use by the public, subject to the payment of the prescribed fees. This vehicle is a heavy lorry with a crane attached to it. The crane is capable of lifting and carrying crashed vehicles, etc. It is also useful for pulling down dangerous walls of collapsed buildings.

Record of Work

The following are the statistics of the number of fire and ambulance calls attended to by this Department during the years 1945-1949.

Year.	Total fire calls.	Value of property saved from destruction by fire (Rupees in lakhs).
1945	1,308	250.6
1946	1,637	415
1947	1,794	520
1948	2,357	1,475.8
1949	2,372	4,663

Year.	1945	1946	1947	1948	1949
Number calls attended to	1,278	4,699	6,328	8,895	9,104

The crane used for raising ditched vehicles (in the Breakdown Lorry)

be used. The Fire Service officers and men go up these ladders quickly to reach upper floors of a building and carry the unconscious persons on their shoulders and bring them down the ladders. In some cases where the water from the hose does not reach the fire at a higher level on an upper story, the branch pipes connected to the hoses is taken up the ladder and water is thrown at the fire from the ladder.

Ready at a Moment's Notice

Whenever information is received by a fire station the two fire units, namely, the Mobile Tank Unit and the Trailer Pump Unit will immediately be sent out. They leave the station at a moment's notice as the firemen are always kept ready for any emergency call. At the time of receiving information of a fire they immediately mount their fire units whether they are in their uniform or not. If they are not in uniform they put on their uniform before going to the fire as their kit, boots, axes, helmets, are always kept on the Fire Tender in their riding positions. This is the reason why you find fire units attend to calls immediately without the least delay. Fires brook no delay and speedy turn out by the Fire Service is very necessary.

The duties of the officers of the Fire Service are many. They not only fight fires but also inspect cinemas, circuses, film studios, public buildings such as hospitals and Government offices, and other places where there is risk of fire, and give expert opinion as to the precautions to be taken and fire equipment to be provided. They also give training to the men belonging to these establishments in respect of fire-fighting.

Rescue and Ambulance Service

When fire units go to a fire, the officers and men also do rescue work. Their work is to save people who are trapped in the buildings which are on fire. They use ladders, ropes and special rescue apparatus to rescue unconscious persons from top floors of buildings. Sometimes they

NEWS AND NOTES

Reclamation and Amelioration

The Government of Madras are giving special attention to the welfare of the backward tribes in this State. The salient features of their work in this direction during 1948-49 reveal the manifold directions in which the Government have sought to improve the lot of these less fortunate section of humanity.

The total number of lower elementary schools in Mathurai North district under the Kallar Reclamation Scheme continued to be 67 during the year under report. There were 3,759 pupils at the end of the year in these schools, as against 3,768 in 1947-48. Three residential scholarships and 48 non-residential scholarships were awarded to deserving Kallar pupils, studying in the various schools in the district. A sum of Rs. 27,900 was advanced to 21 Kallar Co-operative Societies as short-term loans to enable them to grant loans to their members for the purchase of cattle. In Mathurai South district, there were 188 schools for Kallar pupils during the year under notice.

The Kallar reclamation work in Ramnad district consisted of the maintenance of the two elementary schools at Srivilliputtur taluk, one at Mangapuram and the other at Chathrapatti.

The Korava reclamation work in Salem district fell under three heads, viz., (1) maintenance of two schools for Korava boys, (2) maintenance of Korava boarding homes and (3) maintenance of an agricultural farm. The Vaduvarpatti Korava pupils in the A.M.C.C. Boarding School at Aruppukkottai were granted a boarding grant at the rate of Rs. 10-8-0 per pupil per mensem.

The total number of Yenadi colonies at Chittoor district continued to be 115 during the year. The population of

the Yenadi colonies was 9,047. Agricultural advances, amounting to Rs. 7,260, were disbursed during the year.

There were three schools for the Sugalis in Chittoor district, one at Kurnool district and four at Anantapur district. The Sugali pupils at the Chittoor school were supplied with free mid-day meals, clothing and books. The Sugali pupils at the Kurnool school were given free rations, clothing and books.

The boarding home at Konnur in Chingleput district had 70 boarders, belonging to the notified tribes. They were supplied clothing, books and slates as in the previous years.

The Government have sanctioned a separate allotment of Rs. 5,000 for issuing grants to the deserving children of the members of notified tribes.

The number of Habitual offenders' settlements continued to be six at the beginning of the year. The settlements of Bitragunta and Chintaladevi were abolished in August and November 1948, respectively. The settlements at Aziznagar, Siddapuram, Sitanagaram, Chintaladevi and Bitraguta were managed by the Government, while the one at Stuartpuram continued to be managed by the Salvation Army. An extent of 457.9 acres were brought under cultivation in Aziznagar, 485.57 acres in Siddapuram, 169.56 acres in Sitanagaram, 40 acres in Chintaladevi and 900 acres in Stuartpuram. All the settlement schools continued to function satisfactorily during the year. The pupils, who studied outside, were given grants for boarding, purchase of clothing and books.

NEWS AND NOTES

A Field for Vast Service

Like the Panchayats of old, local bodies afford ample opportunity for serving the masses in the country. Not a little of the prosperity of ancient India was due to the efficiency of the Village Panchayats; similarly local bodies with good leadership can play a useful role in the present day India. The Government have recognized the vast potentialities of local bodies and the recent conference of the Presidents of District Boards is an earnest of their resolve to utilize local bodies in an active programme of National reconstruction.

Under the present dispensation of our country's independent existence, the local boards do usefully serve as theatres for training people and initiating them into public administration, as the experience gained in it will stand them in good stead, while called upon to hold reins of public administration at higher levels.

The presidentship of a district board is not a bed of roses. But it is one of heavy responsibility. It holds immensity of opportunities for service and for doing good to the people, within the limited sphere of its functions. The powers now enjoyed by President of the District Board are the outcome of a long process of evolution, since the days of the introduction of the local boards into the public administration of this country nearly 80 years ago. The passing of the presidentship from officials into the hands of elected non-officials was a slow process through several stages. The presidentship was one thing in the hands of an official president; it was a different thing in the hands of a nominated president; it was still more a different thing in the hands of an elected president. The last is one involving sacred trust and confidence reposed by the electorate and hence one of great responsibility. It requires qualities worthy of its position.

Persons at the helm of administration of the district boards as presidents, should be men of sound commonsense and experience. The principal desiderata in a president are undoubtedly some familiarity in public affairs and some experience in administration. The first of these is pre-eminently necessary for one, who is called upon to deal with so wide a range of subjects like roads, bridges, schools, hospitals, sanitation and public health, etc. Otherwise he is apt to find himself at sea, and can neither give a lead to his colleagues in the board, nor evolve his programmes and plans in an office containing several departments. To be a successful administrator, the president should have at least a working knowledge of the provisions of the Local Boards Act and rules and regulations connected with it. He should at least be in a position to judge whether the lead given by the departmental heads in his office is a correct one, warranted by the Local Boards Law and procedure. If he is thoroughly ignorant of the provisions and depends upon the office for guidance in anything and everything in the administration, he will

become a laughing-stock among the public and his regime will become a scandal.

The importance of administrative experience also, can hardly be exaggerated. Without it, the president will fall into party politics and become a cypher as an administrative head. Absence of this experience will lead to vacillation and result in waste of funds. On the other hand, the possession of administrative experience will be of estimable value. Such persons will be able to address themselves at once to the administrative problems, with which they are faced, instead of spending a major part of their term in understanding them.

It is also absolutely necessary for the president, to set up healthy conventions and good principles for his guidance in matters of administration; and work with the consciousness that he is to discharge the sacred trust and confidence reposed in him by the public.

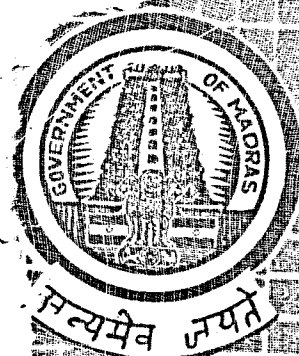
Under the present system of the functioning of the democratic institutions, governed by electoral system and rule of majority, it is but natural that everyone will legitimately aspire for some position in public life. Such aspirations are healthy signs of a progressive society. Opposition one has to face inevitably in elections, either for membership or vice-presidentship or presidentship. But when once one gets elected, he should forget the groups and party alignments that played their parts in the elections; and he should reconcile himself to the position that he is the representative of the entire body of members; and he should no longer judge things and matters pertaining to the public administration only in terms of convenience or inconvenience to those that voted for him. But he should play the role of a non-party man, ignoring group policies and group affiliations. By virtue of his position as the head of the board he becomes common to all members and groups in the board, and as such he should be ever guided by considerations of doing good to the people at large within the ambit of the Law of Local Boards.

The above points were stressed by the Hon'ble Chief Minister in the Conference of the presidents and vice-presidents of district boards in the Province held at Madras.

The various problems which faced the country today could be solved only if the people worked hard and produced more wealth. A country which spent more than what it produced would go bankrupt.

—PANDIT NEHRU.

Registered No. M-4767



MADRAS INFORMATION



199 104/50.



OL. IV. NO. 9

MADRAS
SEPTEMBER

1950

Price, As. 3





TIRUMALAI TIRUPATI DEVASTHANAMS
PAPAYAKASAM WATER WORKS, TIRUMALAI
Foundation Stone laid by
His Excellency Comandore Maharaja Rao
SHRI SIR KRISHNA KUMARSINJI BHAVSINJI K.C.S.I.
MAHARAJA OF BHAVNAGAR
(GOVERNOR OF MADRAS)
ON 20-7-1950
S. V. RAO, B.A., LL.B.
PRESIDENT
T. S. S. RAJAN, B.A., LL.B.
VICE-PRESIDENT

WATER SUPPLY
FOR TIRUPATI
H.E. the Maharajah of Bhavnagar, Governor of Madras, ascends the Seven Hills of Tirupati (top)
H.E. the Governor lays the Foundation stone of the Papayakasam Water Works at Tirumalai (centre left)
A view of the Govindarajuswami temple (centre right)
H.E. the Governor, the Maharani of Bhavnagar, Dr. T. S. S. Rajan and Sri M. Bhaktavatsalam, being received by the Tirumalai-Tirupati Devasthanam officials (left)

Madras Information

Published every month by the Director of Information and Publicity
Fort St. George

1040/5

Vol. IV, No. 9

"WE SEEK TO SERVE AND NOT TO COMPETE"

September 1950

CONTENTS

	PAGE
PROGRAMMES—	
1. Policies, Problems and Programmes—H.E. the Governor's Address	2
FOOD—	
2. The Present Food Situation—By Sri J. L. P. Roche Victoria	5
3. Food Offences and Punishments Awarded	8
AGRICULTURE—	
4. Towards Self-Sufficiency in Food—By Sri S. V. Ramamurthy	9
5. Tractor and Tractor-Drawn Implements	13
6. Pre-Sowing Treatment for Wild Indigo—By Sri L. Venkataratnam, M.Sc.	14
LAND REVENUE—	
7. Zamindari Abolition in Action—By Sri H. Sitarama Reddi	15
IRRIGATION—	
8. Boring of Artesian Wells	18
9. Investigations Sanctioned	19
WOMEN'S WELFARE—	
10. The Mother's Cry—By Dr. Mrs. S. Muthulakshmi Reddi	20
RURAL RECONSTRUCTION—	
11. The Kambalathars	22
HARIJAN UPLIFT—	
12. In the Service of the Down-Trodden—By Sri B. Parameswaran	25
CO-OPERATION—	
13. Co-operation in Tamil Nad—By Sri P. S. Kumaraswami Raja	27
CULTURE—	
14. The Monuments of Tamil Nad—By Sri K. R. Vijayaraghavan	28
LABOUR—	
15. Wages for Tobacco Workers	33
FISHERIES—	
16. Mettur Reservoir Fisheries	34
EDUCATION—	
17. Languages in Schools—By Sri K. Madhava Menon	36
18. Changing the Date of Birth in School Records	37
NEWS AND NOTES—	
19. Amenities for Masulipatnam	38
20. A Sign Post for the Day's Choice of Food	40

Policies, Problems And Programmes

H.E. the Governor Addresses Joint Session of Legislatures

Hon'ble Members of the Legislature!

Let me first of all thank you for your courtesy in attending this joint session. Several important matters will come under your scrutiny in the next few days, and I have no doubt that your deliberations will be watched with interest throughout the State.

The financial operations of this State have become more difficult this year than they were during the last year, owing to the conditions prevailing in the money market and the financial stringency experienced even by the Government of India, and my Government has in consequence been forced to resort to various means for effecting savings with a view to sustain its programme on major irrigation and electricity schemes.

Financial Stringency

Even last year the Government was faced with an unexpectedly sudden and difficult problem for financing part of the capital expenditure on these schemes, but with great difficulty, it managed to adhere to its programme by adopting special measures. The position has been rendered even more difficult this year, but the Government cannot afford to curtail its programme, especially as over Rs. 25 crores have been spent on these schemes on valuable equipment and in building up the necessary organisation.

The programme itself is expected to come into fruition by 1952, when it is expected that large tracts of dry land will be brought under irrigation and power availability will be doubled. For a State sadly short of food and motive power, the importance of sustaining such a programme which holds out great hopes cannot be over-emphasised not merely from the State's point of view but also from the all-India angle.

It is expected that as a result of the economy measures undertaken, a saving of about three crores at the utmost may be effected. But this move, by itself, will not enable the State Government to finance its programme and other measures will have to be thought of, including assistance from the Centre.

The Hon'ble Members are no doubt aware that the Government went into the open market for a loan of Rs. 4 crores and I am happy to announce that it has been fully realised.

As a result of the economy drive, the Government has had, with great reluctance, to slow down, postpone or cut down a number of measures contemplated by it for promoting the welfare of our people.

Food Position

Owing to the persistent adverse seasonal conditions referred to in my last address to you, the food position in the State continues to cause considerable anxiety. In view of the fast deteriorating stock position of rice in the State and the inadequate supplies received from the

Centre, my Government was compelled to reduce the scale of rice ration from 8 oz. to 7 oz. per adult per day with effect from July 2, 1950, the remaining 1 oz. being given in the shape of wheat so that the overall 12 oz. ration may be kept intact.

All possible steps are being taken by this Government to maximise procurement and intensify food production in the State. The Government hopes that as a result of these efforts and the more generous assistance from the Government of India which it has pressed for, the hardship to our people can be ended soon.

In order to achieve self-sufficiency in food by the end of 1951, the irrigation policy of this Government is now mainly concentrated on pushing through schemes which will produce results by that date. In order to avoid delays in correspondence, all schemes which come within the scope of the intensive cultivation programme of the Government including those under the Public Works Department, are now attended to by the Commissioner for Food Production in his capacity as Secretary to Government.

Work on Irrigation Schemes

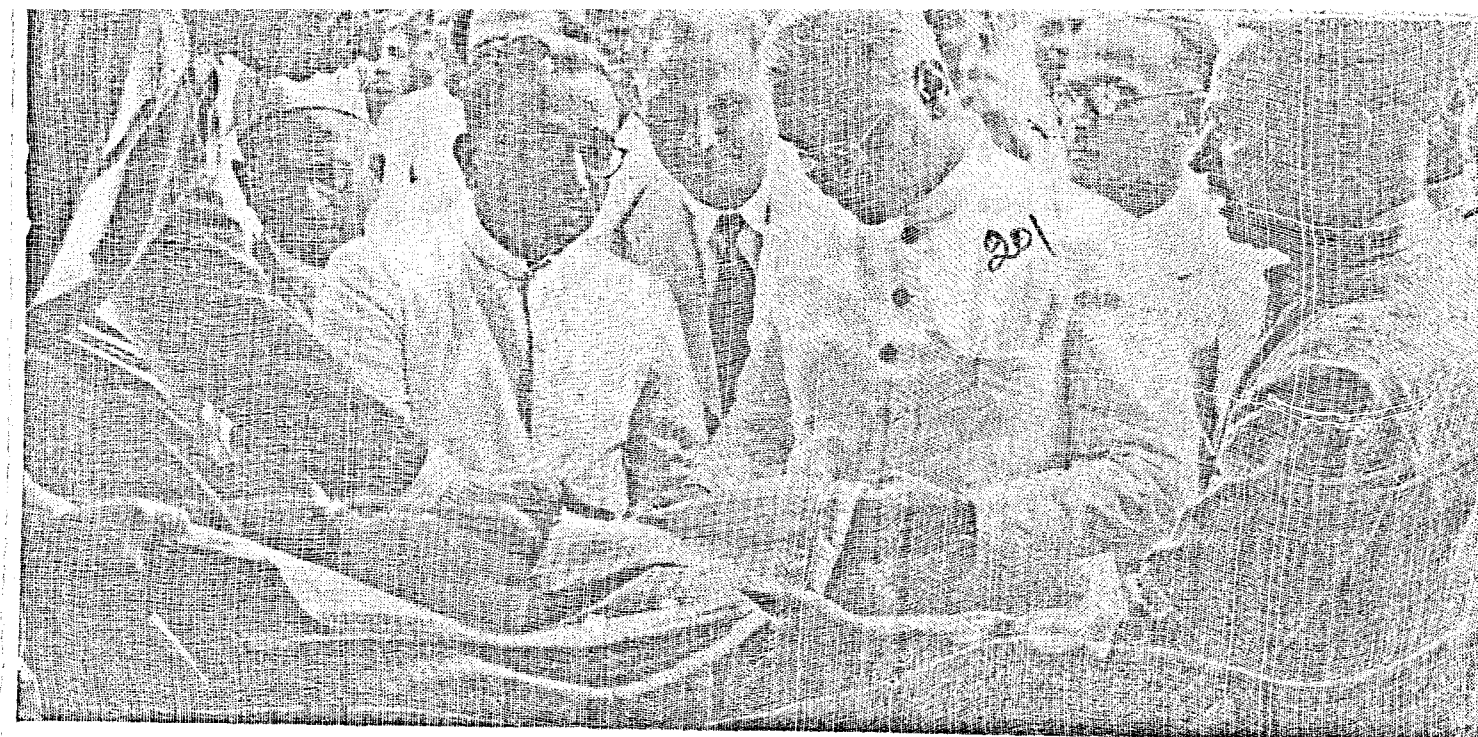
In addition to these schemes which will be yielding quick results, work is going ahead on the major schemes such as the Tungabhadra, the Lower Bhavani, the Malampuzha and an attempt is being made to see that these bigger schemes produce some results at least by 1952. For example, it is expected that the Lower Bhavani Project will afford irrigation facilities for a second crop of paddy on about 10,000 acres in the year 1952.

My Government has been considering the question of improvement and reform in respect of the method of assessment of land revenue in ryotwari areas, the system of land revenue administration, the tenure of holding of ryotwari land and the conditions of cultivating tenants and agricultural labourers. A Committee appointed to go into these questions and make recommendations has been functioning since 13th May 1950.

In the field of Public Health, a comprehensive policy and programme for the prevention, control and relief of leprosy has been formulated and when financial conditions improve, we will be in a position to tackle the serious menace of leprosy successfully.

COVER PAGE

A familiar yet fascinating view of the Kutralam Falls, in Tirunelveli District, graces the cover page this month. Kutralam is the Spa of the South, and its bracing waters of health invigorating properties attracts tourists and pilgrims every season.



H.E. the Governor examines the handloom fabrics made by the Yemmiganur weavers. There are 3,000 handlooms working in Yemmiganur, a village of 17,000, and the Co-op here is the biggest in the State

A special scheme for the control of tuberculosis in Madras City has been sanctioned, and this will be worked in conjunction with the Corporation of Madras.

Spread of Education

The Government have been continuing to do all that it can for the spread of basic education. At the instance of the Government of India, a special scheme of adult education was initiated last year at a cost of Rs. 3.14 lakhs, that Government having borne one half of it. It has now given a further grant of Rs. 6.86 lakhs to this State, and another scheme to do away with adult illiteracy as quickly as possible is being drawn up.

In order to give an impetus to the elementary education scheme, the Government has proposed to increase the rate of its contribution to the elementary education funds of local bodies with effect from the current year at an extra liability of Rs. 50 lakhs. The report of the Select Committee on the concerned Bill will be presented to you during this session.

To meet the urgent demand for training teachers for staffing secondary schools, the Government has opened two training colleges—one at Palghat and the other at Mangalore—from the academic year 1950-51. It has also admitted to special aid, certain private managements that came forward to open B.T. or B.Ed. courses in the year.

Harijan Uplift

The expenditure on Harijan Uplift has been steadily and rapidly increasing. In 1949-50, it was Rs. 71.21 lakhs as against Rs. 8.7 lakhs in 1924-25. The Budget Estimate for 1950-51 is Rs. 92.67 lakhs. This increase of over Rs. 20 lakhs in the current year's Budget over the expenditure of 1949-50, is a clear proof, if any were wanted, of my Government's earnestness and determination to do its very best for the uplift of Harijans.

With a view to relieve the shortages of houses in the State, a drive for the construction of houses through Co-operative Housing Societies was initiated in 1947, and

substantial provision is being made every year in the Budget for the grant of State Loans to these Societies. The Societies are also helped in the matter of supply of building materials at controlled rates. In April last, the Government sanctioned a scheme for the organisation of housing societies in rural areas.

This is an entirely new scheme, and it is proposed to introduce it in the current year in one village in each district. The Government has also decided to disburse loans to housing societies in rural and urban areas upto Rs. 80 lakhs and Rs. 15 lakhs, respectively, during the current year.

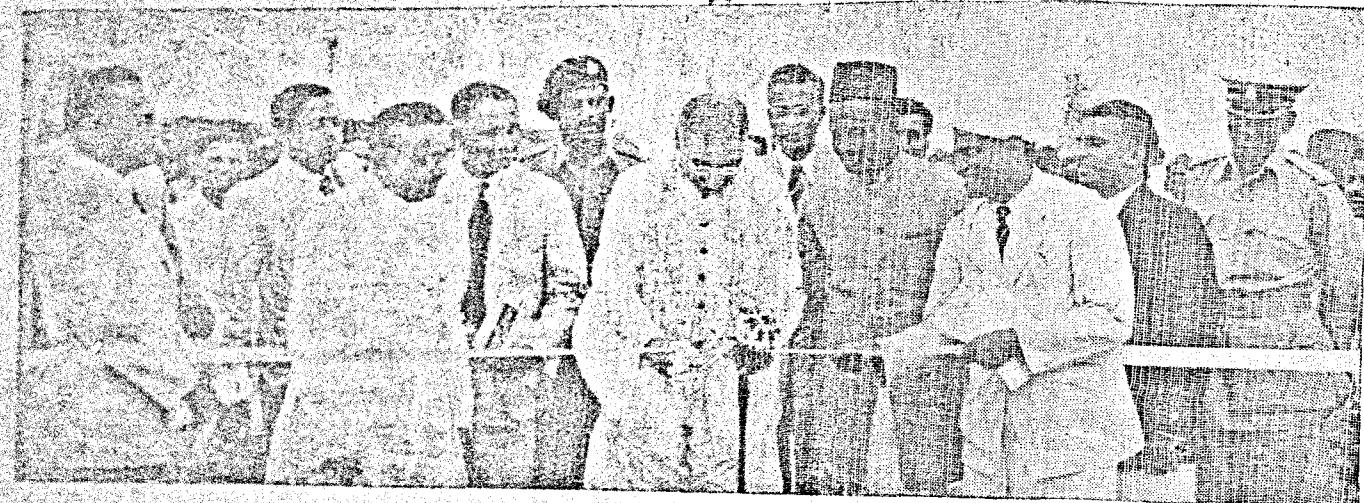
The Government Bus Service in Madras City is fast developing, and is affording great comfort and convenience to the public. It is also financially successful. The Government has decided to extend the scheme to the districts of Chingleput, South Arcot and Nellore, and necessary action to implement this decision will be taken soon.

The Government has constituted a Committee consisting of officials and non-officials to consider the improvements that may be made in the administration of jails and to suggest suitable reforms for the purpose.

Enumeration of Voters

Owing to the liberalisation of the franchise qualifications under the Representation of the People Act, 1950, a supplementary enumeration of voters throughout the State became necessary and this has been completed recently, and the preparation of the supplementary draft electoral rolls for the State Legislative Assembly and the Union House of the People has been taken up. The draft rolls for the Madras Legislative Council are also under preparation. The draft rolls are expected to be ready for publication as the preliminary rolls in September 1950 for being finalised after the disposal of claims and objections.

During this session both the Houses will be afforded an opportunity to discuss, on a Government motion, certain important questions connected with the election



H.E. the Maharaja of Bhojpur, Governor of Madras, declares open the Yemiganur Weavers' Co-operative Housing Colony. The 53-acre colony now has 60 houses, and provides for a total of 152 houses. The Madras Government has given the Society a 20-year loan of rupees ten lakhs.

under our new constitution, namely, the question of single-member and plural-member constituencies, reservation of seats for the Scheduled Castes and Scheduled Tribes and the conduct of elections.

My Government has already taken action, with reference to Article 187 of the Constitution, for setting up an independent Secretariat for the State Legislature, and the proposals which it has finalised in this behalf will be placed before both the Houses for approval during this session.

Law and Order

Since I spoke to you last, my Government has decided to extend its scheme of Separation of the Judiciary from the Executive to five more districts in the State with effect from August 15, 1950. The results so far achieved are encouraging.

The law and order situation in the State has been generally satisfactory, due to the vigilance of the Police Forces and the magistracy. Activities of the subversive elements still present in certain areas, but the vigorous action taken by the Government has led to a considerable decline in the number of serious crimes like murder, looting, robbery, etc.

I shall now proceed to indicate to you the more important legislative measures which will come up before you for consideration during the current session.

1. You will be asked to consider the Madras Hindu Religious and Charitable Endowments Bill, 1949, as recommended by the Joint Select Committee.

2. The report of the Select Committee on the Madras City Improvement Trust Bill will shortly be presented to the Legislature.

3. THE MADRAS WAREHOUSES BILL, 1948—The report of the Select Committee will come up for your consideration.

4. THE MADRAS AGRICULTURISTS' RELIEF ACT, 1938 (Madras Act IV of 1938) was enacted in order to give relief to indebted agriculturists and made suitable provision, among others, for scaling down their existing debts and for redemption of usufructuary mortgages. Certain practical difficulties have been experienced in the working of these provisions and it has been found necessary to amend the Act suitably. An amendment Bill for the purpose is expected to be introduced in this session.

5. Article 190 (1) of the Constitution requires that the State Legislature should provide by law for the vacation by a person who is chosen a member of both the Houses, of his seat in one House or the other. Necessary legislation in this behalf will be introduced during this session.

6. THE MALABAR TENANCY ACT, 1929—It is proposed to introduce a Bill to amend this Act in this session.

7. Certain practical difficulties have been experienced in the administration of the Madras Buildings (Lease and Rent Control) Act, 1949, whose life expires on September 30, 1950; necessary legislation for continuing the Act and for carrying out certain amendments to it will be introduced in this session.

8. It is proposed to introduce legislation for the constitution of a Contingency Fund for this State as provided for in Article 267 (2) of the Constitution.

These and other matters will be engaging your attention this session and I have no doubt that the care and thoroughness so characteristic of your deliberations will once more be evident in the discussions that will take place. May Providence give you faith, courage and wisdom in the task that lies ahead of you.

I thank you once again for your courtesy and your patience.

VOL IV
No. 9
Sep-1950

The Present Food Situation

By SRI J. L. P. ROCHE VICTORIA, Minister for Food and Fisheries.

An unhappy situation is developing in many parts of this State on account of want of adequate stocks of foodgrains to feed partial producers and non-producers which is the responsibility of the Government, particularly under the system of intensive procurement, which is in force in this State, as part of the integrated food policy of the Government of India. The background of the problem in the present situation and the steps taken to meet it, are given below.

Madras State has always been deficit in foodgrains. The production in pre-war years was short of the requirements to the extent of about five lakhs of tons. While this deficit in production has been progressively increasing with the increase in population at the rate of 1.1 per cent per annum, Nature has been more and more unkind to us. This is the third year in succession, when one or other of the two monsoons have failed in several Southern and Central districts and crippled our production and resources.

The normal production of rice in this State is estimated at 49 lakhs of tons and of millets at 26½ lakhs of tons, but we have not had a normal year after 1946-47 in regard to rice and after 1944-45 in regard to millets. In the subsequent years, the rainfall has been either poor or ill-distributed, that it has not only adversely affected the extent under cultivation but it has also reduced the yield from the normal. It should also be mentioned that during all these years except one, the normal pre-war import quota of five lakhs tons was not received by the State.

World Shortage of Foodgrains

In the post-war years food production had also considerably fallen throughout the world and whatever surpluses were available in the producing countries had to be rationed out to the deficit countries by an International Emergency Food Council set up for this purpose by the Allies. India had to obtain her requirements from this Emergency Food Council and the quotas they could allot to this country depended on economic and other considerations. The position was particularly difficult with regard to rice, as the main surplus producing countries, namely, Burma and Indo-China, were devastated by the second world war.

Thus India as a whole and South India in particular had to suffer because rice, which was a rather difficult commodity to obtain in the post-war world, was its staple food. Thus alternative and unfamiliar foods like wheat, maize, milo and barley had to be accepted by this State to meet its need, but even these grains were not available to the full extent necessary to meet our normal shortage.

We, however, managed to pull through all these years by adopting the scheme of intensive procurement which had the effect of bringing out not only the surpluses with the ryots out of current crops, but also the carryover with them which was an integral part of our rural economy. This system of procurement and the limitation imposed on consumption by the rationing rules and regulations have

enabled us so far to lead a more or less hand to mouth existence. The result is that non-producers and partial producers are to depend entirely upon the rations issued in the Government ration shops, as there is no other source of legitimate supply to meet the requirements.

Failure of Monsoon

Kharif year 1949-50 needs special mention as not only did the monsoons fail in the Central and Southern districts resulting in heavy loss, but there was also the further damage to crops on account of the cyclone which struck the Circars in October 1949.

Misfortune seems to dog us further. The first half of the south-west monsoon has failed in twelve districts, viz., Chingleput, South Arcot, North Arcot, Cuddapah, Chittoor, Salem, Coimbatore, Tiruchirappalli, Tanjore, Madhurai, Ramanathapuram and Tirunelveli. This has resulted in the curtailment of agricultural operations. The immediate effect of the failure of the first half of the south-west monsoon was to discourage the ryots from releasing small surpluses, which they might still be having and which would have normally come into the market, if the seasonal conditions had been normal. Our procurement has, therefore, received a sudden setback. The failure of the first half of the south-west monsoon and the consequent breakdown in procurement worsened the situation in July.

Even at the start of the kharif year, it was anticipated that the food position in the State would be difficult. The Government of India were, therefore, requested to allot to this State immediately three lakhs tons of rice, in addition to the usual quota of rice and other foodgrains, which they would be allotting in the normal course. However, in view of the heavy financial drain which imports from foreign countries involved and in pursuance of the policy of self-sufficiency by 1951, the Government of India had decided on curtailing imports to the barest minimum. In accordance with this policy, they originally fixed the quota to this State at three lakhs tons of all foodgrains for the year.

D-4 Bulldozer working at road making. In its first stage, the machine is given a suitable lead to collect loose sand and accumulate this round a well to be filled up.



We had, however, been repeatedly pointing out to them that this quota was quite inadequate to meet our huge deficit and that it required to be increased considerably, especially the rice quota. In response to these repeated representations, both oral and in writing, the Government of India were pleased to enhance the quota during the middle of June last from three lakhs to 5½ lakhs of tons made up of 2½ lakhs tons of rice, 1½ lakhs tons of milo (red cholam) and two lakhs tons of wheat.

Reduction to Seven Ounces

The movements under the Basic plan, however, were not regular. The offtake of rice ranged between 30,000 and 31,000 per week in June last and as the procurement was only to the tune of 15,000 tons per week and as July to September was always a difficult period to tide over, it became necessary to reduce the rice ration to 7 oz. A meeting of the Provincial Advisory Food Committee was held in the middle of June when the position was fully explained and the Committee agreed to the reduction of rice ration to 7 oz. which was given effect to from 2nd July 1950. Even then, there was an anticipated deficit of about 60,000 tons of rice for the rest of the year and we, therefore, pressed for an additional allotment of at least this quantity over and above 2½ lakhs tons already allotted, when the Hon'ble Mr. Munshi visited Madras early in July. But he expressed his doubts whether he would be in a position to comply with our request, in view of the particularly difficult rice position elsewhere, but gave a general assurance that he would do his best to help us.

But subsequently there was a sudden deterioration as already explained. Since 1st July 1950, we have procured only 22,211 tons up to 29th July 1950 and received 19,201 tons under the Basic plan, but our weekly offtake was round about 28,000 tons even at 7 oz. Our stocks were, therefore, going down by about 15,000 to 20,000 tons per week and it became difficult to maintain the buffer necessary at all centres to ensure rationing without a breakdown. There were some surplus stocks in districts like East Godavari, West Godavari, Visakhapatnam and Tanjore, but the railways were unable to supply the necessary wagons.

Congestion in Ports

It should be mentioned in this connexion that between 24th and 31st July 25,704 tons of wheat and 9,450 tons of milo were loaded at the Madras Harbour, apart from a large quantity of fertilisers and again 5,000 tons of wheat

and 8,600 tons of milo in the Cochin Harbour. The Port authorities were anxious to have the cargo cleared at once, but the railways found it difficult to cope with the situation. They therefore diverted all the available wagons for this purpose. Rice that was ready in the Circars could not be moved for want of transport. It would have been better if the import of foodgrains by sea had been spread out more evenly over the whole year, instead of having too little in the first half and too much in the second half year, but the Government of India appear to have had their own difficulties in regulating these movements. The result was that owing to too heavy traffic from the Ports, even available local stocks of rice could not be moved to the deficit areas.

Rationing in Rural Areas

It was in these circumstances that it became necessary for the Government to reduce the rice scale from 7 to 6 ounces in the rural areas. Under the scheme of rural or informal rationing, Collectors have been given discretion to vary the scale and composition of rations, with reference to the stock position. In the exercise of these powers, many Collectors had already reduced the scale with a view to make the available stocks go as long as possible and serve the largest number, as the stocks in several ration shops in the deficit districts had come down to a very low level.

Government have always been making a distinction between statutory rationing in municipal areas and rural rationing elsewhere. Municipal towns contain a much larger percentage of industrial population and non-producers than other areas and are thus vulnerable spots. They have therefore been given priority over rural areas all along since the introduction of rationing, on the ground of administrative necessity.

Rice Stocks

The scale of rice ration therefore still stands at 7 ounces in the towns but it would be impossible to maintain this scale any longer. The stock of rice on 29th July 1950 was only 114,785 tons. Adding to them 150,000 tons likely to be procured before the end of October and 60,000 tons which we might receive under the Basic plan, our total availabilities will amount to about 325,000 tons. Out of this, about a lakh of tons at least should be kept as buffer at the end of October. The balance available for distribution during the interval is only about 2-25 lakhs tons, unless our own procurement shows considerable improvement or the Government of India find it possible to increase our rice allotment. Intensive cultivation schemes may be expected to produce tangible results only after we have had at least one normal season.

This means that we will have at our disposal only about 75,000 tons of rice per month till about the end of October. Hence the need for a further reduction in rice ration in the statutory areas, however unpleasant it may be. We have yet to receive about 146,000 tons of wheat and about a lakh of tons of milo under the Basic plan.

Central Aid Invoked

The Food Secretary to this State Government was recently deputed to New Delhi and he has explained the actual position to the Ministry of Food. They, on their

part, are doing their best to help us out of the situation, but it is understood there are real difficulties in regard to rice, as it is not available in sufficiently large quantities. The Government of India have entered into an agreement with Burma for the supply of a lakh tons of which more than half the quantity has been received and we have had our share. The Government of India have made elaborate enquiries in Burma and they discountenance the idea generally current here that very large quantities of surplus rice are still available there. The Government of India are still exploring all possibilities. They have instructed Uttar Pradesh to reduce its rice commitments as the people there eat wheat mostly, and to make a larger quantity of rice available for rice-eating areas. Our rice quota from the U.P. has also been increased by 3,000 tons immediately. Madhya Pradesh has been asked to give us 20,000 tons in addition to its old quota. Assam and Orissa have been instructed to tighten up their procurement still further. Attempts at more imports from overseas are also being made.

Notwithstanding all these efforts, it cannot be definitely said at this stage whether the Government of India would be in a position to give us any additional quantity over the Basic quota of 2½ lakhs tons, out of which we are yet to get 95,701 tons. The extent to which additional help can be expected will naturally depend on the extent of their success in all these directions. It is not advisable in these circumstances to budget for more than 75,000 tons of rice per month till the end of October, when the position would become more clear. It is understood that Mysore State has been obliged to reduce their rice ration to rice eaters to 5½ ounces. We have recently reduced the rice content of rations to the mixed diet and millet eaters from four and two ounces to three and one ounce respectively. The issue of broken rice to non-meals hotels (they were never given whole rice) has also been reduced to a minimum. In addition to these steps, it is necessary to reduce the scale of rice ration for the rice eater in the statutorily rationed area to six ounces immediately.

General Stock Position

But the overall ration will still continue to be 12 ounces and the balance will come out of 248,000 tons of wheat and milo yet due under the Basic plan coupled with the local procurement of millets. The Government of India have assured us of a regular supply of these grains and any apprehension that the reduction in rice ration will tantamount to a reduction in the overall ration in the future months, will not be well-founded. The difficulty in July was due to the fact that our stock position of wheat and millets was very low and transport took some time to clear the heavy arrivals at the Ports. There are still transport difficulties. The Civil Supplies Officers are constantly in touch with the railway officials and special trains are being run from Madras Harbour to the deficit areas carrying wheat and milo. Special trains have also been arranged to run from the Circars to the southern districts by the more circuitous metre gauge route. A ship has also been chartered to take rice from Kakinada Port to Tuticorin and Cochin. These special arrangements are expected to relieve the shortage in the deficit districts to some extent.

MADRAS IN THE FOURTH YEAR OF FREEDOM

Latest Publication

Profusely Illustrated

Price Annas Eight only.

Order your Copy now through your local Agent.

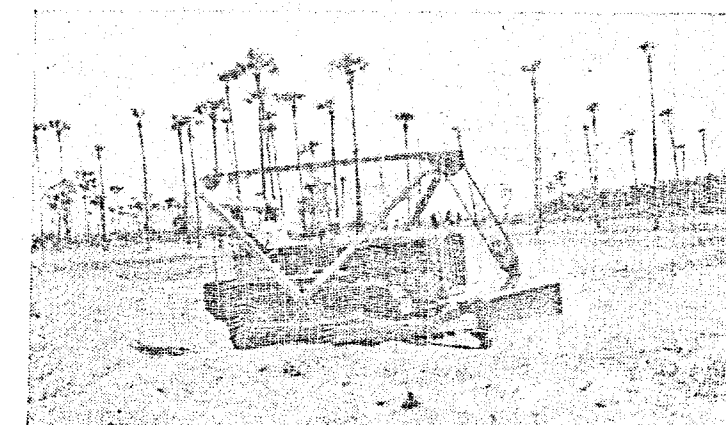
Copies can also be had, on payment of cost in advance, from:

The Director of Information & Publicity,
Fort St. George, Madras-9.

The stock position of the grains other than rice is also now definitely better than what it was in the middle of July. In short, the position is now this: while the rice situation is still difficult the general overall food position is not bad, as fairly large stocks are already in transit. With a succession of monsoon failures for three years' running rendered worse by the severe cyclone damages in areas where the crops were otherwise good, with our irrigation sources empty and wells dried up or drying up fast resulting in scarcity of drinking water in several parts of the State and with world conditions in a turmoil, would it be reasonable to expect the continuance of the rice ration undiminished? As practical men, we have got to take stock of the situation in all its aspects and try to adjust our requirements within the limits of reasonable possibilities.

From the statement made by the Minister for Food in the Madras Legislative Assembly.

After filling, the area is levelled with a back blade leading to a fine finish. The area by the side of the road is also levelled to make it suitable for raising crops.



Food Offences and Punishments Awarded

During the fortnight ending 15th June 1950, 360 cases of prosecutions were disposed of in Madras State.

Particulars of cases in which heavy punishments were awarded in the districts are described below :—

South Kanara District.—Alavoor Ramachandra Kini, landlord, Udipi, who sold rice at excess rate was fined Rs. 200 with two months, R.I. in default.

Tiruchirappalli District.—Muthuswamy was fined Rs. 200 in default to undergo R.I. for three months, for being in possession of five bogus ration cards and issuing rations on these cards.

Salem District.—Subbu Pandaram was fined Rs. 200 with two months, R.I. in default, for illicit import of 108 Madras measures of foodgrains.

(ii) Pachamuthu Goundar was fined Rs. 200 in default to suffer R.I. for one month, for unauthorised purchase of foodgrains.

Malabar District.—C. Kunhkoya, Kottapadam, was sentenced to pay a fine of Rs. 500 or in default to suffer R.I. for six months, for failure to sell surplus paddy.

(ii) Ayyasami Chettiar of Ellapally and Subramania Mudali, cooly, Pallatheri, were each fined Rs. 200 with three months, R.I. in default, for illegal transport of paddy and rice.

Madras City.—B. K. Shanmugam Chetty, Shroff Merchant, No. 88, Samy Pillai Street, Triplicane, was fined Rs. 250 with six weeks, R.I. in default, for possession of 170 measures of rice.

During the fortnight ending 30th June 1950, 661 cases of prosecution were disposed of in Madras State.

Particulars of cases in which heavy punishments were awarded in the districts are described below :—

Salem District.—Narasimha Iyer was fined Rs. 200 in default to suffer R.I. for a month, for illicit possession of foodgrains.

(ii) Sheik Mohideen Sahib was sentenced to pay a fine of Rs. 200 with two months, R.I. in default, for unauthorised purchase of foodgrains.

(iii) Annamasi Gounden, son of Perumal Goundan, Kundanur, Omalur Taluk, cultivator, was fined Rs. 300 and in default to undergo R.I. for six weeks, for unauthorised purchase of paddy.

Krishna District.—In one case S. V. Venkataratnam, S. Venkateswara Rao and M. Simbachalam, partners of a rice mill, were each fined Rs. 200 with R.I. for four months in default, for selling rice in excess of the prices fixed in the Madras Foodgrains Price Control Order, 1949.

(ii) In another case S. V. Venkataratnam, rice mill manager, S. Venkateswara Rao, K. Venkatasubbiah, S. Venkatasubbiah and M. Simbachalam, partners of the rice mill, were each sentenced to pay a fine of Rs. 200 in default to undergo R.I. for four months for incorrect maintenance of accounts.

Malabar District.—T. Cheriya Mamoo was convicted and sentenced to pay a fine of Rs. 200 or in default to suffer R.I. for one month, for excess drawal of ration for an adult for 5 months and 21 days and for another adult for two months.

(ii) Kolathody Achanma of Koththar amsam was fined Rs. 250 with three months, R.I. in default, for illegal possession of paddy.

Guntur District.—V. Lingaiah, cooly, Guntur, was fined Rs. 200 for illicit possession of 20 maunds of rice without licence.

(ii) V. Venkataratnam, cultivator, who transported paddy without permit was fined Rs. 200.

Yellow District.—L. Narayana Raju was fined Rs. 400 with three months, R.I. in default, for illicit transport of paddy.

(ii) M. Sreeramula was also fined Rs. 200 in default to undergo R.I. for three months, for illicit transport of paddy.

AGRICULTURE

Towards Self-sufficiency in Food

By SRI S. V. RAMAMURTHY, Honorary Regional Food Commissioner

When the second world war started and Burma fell a prey to Japan, the struggle for food started in India. Before that wheat was if anything surplus to India's requirements, but rice was being imported from Burma which only a few years before had been a part and parcel of India. As India's insufficiency in rice started with the partition of Burma, so India's deficit in wheat has started largely with the cession of Pakistan. Even before that the deficit of rice which was not easily available in the rest of the world had to be made up partly by the use of wheat instead of rice.

The need to switch over from old established habits of food started with the last war. In Bengal people died rather than eat millets which were imported in the time of the great famine in 1944. But in Madras the supply of wheat began to be taken up in increasing measure by the people in place of rice. The need for a change in food habits has been due not only to the reduction of available supplies when India shrank from her former size but also to the growing rise in her population. The application of rationing methods has also by equal distribution of the available supplies among the mass of the population naturally tended to limit the amount available to each person. As the years went on with deficits mounting, the available sources of food in the country dried up, with the result that in the last two or three years India has been obliged to import food from abroad to the value of something like 100 crores of rupees a year.

Self-sufficiency in food can be attained in India. It is up to agricultural experts to say how it shall be done. To achieve we must decide and drive. The average production of paddy in this country as well as in other countries of Asia in the same latitude from Pakistan to Burma, Siam and Indo-China is about 1,200 lb. an acre. It is about 2,000 in China, 3,000 in Japan and I was told at the Rice Conference at Bangkok, it is even 2,000 in Java, though this last figure has been contested. In India we have some land producing paddy as much as any country in the world, but our average is poor, much poorer than we feel it should be. In the report of the Famine Enquiry Commission it has been pointed out that considerable attention has been paid by the Agricultural Departments to the breeding of good seed but equal attention has not been paid to the feeding of the good seed. The result has been that while the seedlings are good they do not grow as much as they are expected to grow, because they are ill-fed.

Green Manure

The Commission pointed out that the next great drive should be towards the improvement of manure supply to paddy producing land. One ready and even cheap way of supplying manure is growing green manure on the land itself and applying it to the land. There are, however, practical difficulties in getting even the moderate amount of water that is necessary for growing the green manure and it is not all land that can be supplied with

green manure. Even in the delta districts I have been told that something only like a quarter of the area could be provided with green manure. The remaining area has thus therefore to depend upon other sources. Groundnut oil cake has been applied as far as possible, so too bone-meal. Their supplies are limited. There are ways of applying organic manure but along with organic manure the experiments and experience of the Agricultural Department have shown that inorganic manure could also be applied without any detriment to the soil.

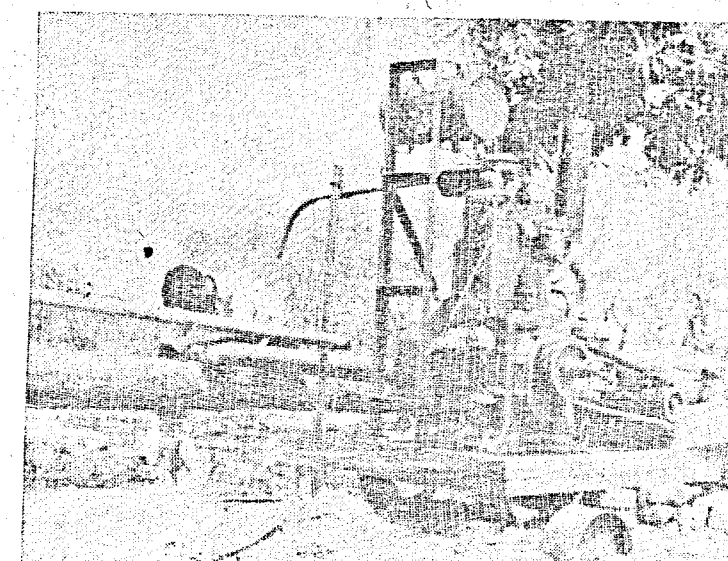
If there are doubts in the minds of some that the application of inorganic manure is harmful to the soil, they should be removed by the opinion of scientific experts who have made experiments for half a century on agricultural farms in India as well as by the experience, both scientific and practical, in other countries of the world where the application of inorganic manure with suitable safeguards has not depleted the fertility of the soil. Plants take out certain chemical ingredients from the land and it is not unreasonable to put them back in suitable ways.

The representative of Japan at the Bangkok Conference attributed the high fertility of Japan's paddy land to be largely due to the application of ammonium sulphate, of which before the war they produced 1½ million tons a year. During the war this manufacture fell and so too the productivity of the paddy land. After the war they have already reached a production of a million tons a year and the productivity of paddy land has been restored. In Java, one of the main reasons for the productivity of paddy land is natural phosphatic manure. In China the people are fortunate in being devoid of sentimental objections to the use of human excreta as manure for their soils.

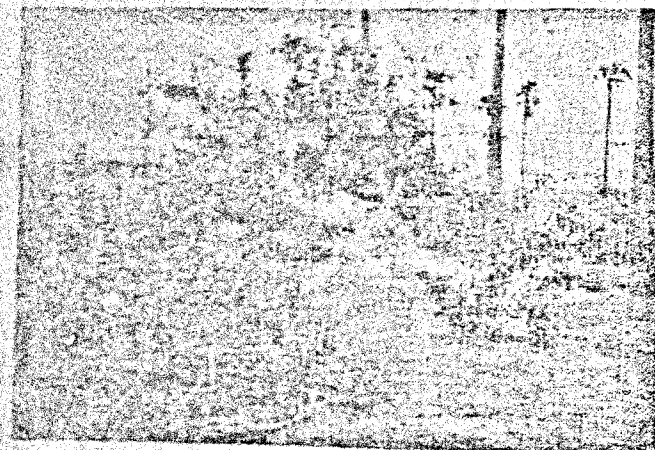
Inorganic Manures

In India, methods of making compost from human excreta have spread but little. To meet with our immediate problems the ready method is the applying of inorganic

Russel-Newberry T-10 H.P. Diesel Engine installed at the Bapatta Agricultural College Farm to irrigate sugarcane and the Orchard



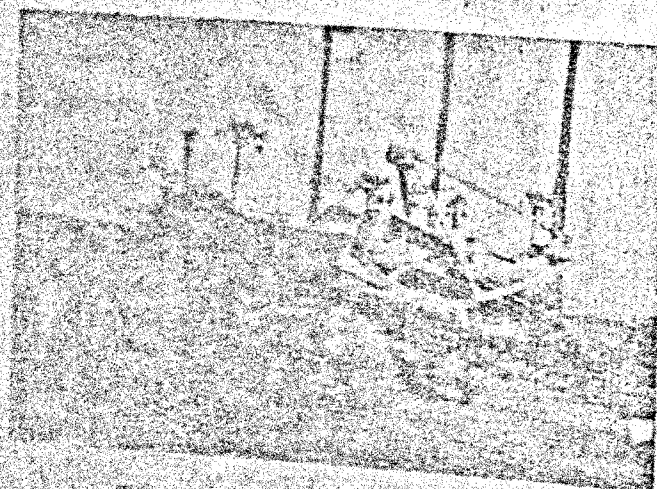
BULLDOZER CLEARS A MOUND



The area before starting the clearing operations



The bulldozer in position



View of the mound cleared by bulldozer and machine

manure, namely, ammonium sulphate with a suitable addition of superphosphate. I have met cultivators in various parts of Madras, Mysore and Travancore-Cochin in the last few months. I have not come across a cultivator who has denied that the application of a bag of ammonium sulphate has not produced about three bags of additional paddy. Deterioration of the soil by the exclusive application of ammonium sulphate can, we are told by experts, be avoided by the application of corresponding quantity of superphosphate even if green manure and groundnut oil-cake cannot be applied with ammonium sulphate. The application of inorganic manure can then raise our paddy yields by about three bags or 500 lb. per acre if a bag of ammonium sulphate with superphosphate is applied. That is to say, the yield of 1,200 lb. can be raised to 1,700 lb. and the yield of 1,600 lb. per acre which is the average reached in the delta districts can be raised to over 2,000 lb.

Our long-term paddy crop is poor in yield even as our short-term paddy crop is poor in yield too. Both need to be enhanced by the application of adequate manure. It is for this reason the Government of India have recently suggested to the Government of Madras the application on a mass scale of inorganic manure consisting of ammonium sulphate and superphosphate in the districts of Madras with an assured water supply. Both in Mysore and Travancore, the Governments of the States have already put in force an organization for the application of such manure on a mass scale. It is to be hoped that by the end of the year the production of paddy in South India will be appreciably increased by the application of this manure.

Madras is in a fortunate position inasmuch as the Agricultural department through a long course of years helped to produce and distribute good paddy seed so that something like 60 to 70 per cent of the paddy land has had the benefits of improved seed. There are few other States which can show this record. Methods of combating disease and methods of improving storage have also been receiving attention. These are elements of a long-range strategy of improving production and the department will no doubt strive to improve them steadily and assiduously.

Reclamation of Waste Land

An important method which is being applied in various parts of India as a part of the self-sufficiency drive is the reclamation of land. In large areas of Central India, land has got infested with *kans* grass and tractor units are ploughing the land deep in order to eradicate the weeds. In Uttar Pradesh, the *terai* which has been a malarial swamp has been taken in hand and recent accounts show considerable success in freeing the land from malaria and developing cultivation of food crops in the area.

In Madras, the weed infestation of land has not been a problem, but there are large areas which have been manifested with malaria and have remained sparsely cultivated.

Among such areas are the Agency Tract in Visakhapatnam and the Wynad in Malabar. The Visakhapatnam Agency mainly belongs to the Jeypur Zamindari which along with the rest of the zamindari is 20,000 square miles in extent. The density of population is very small. While

the hill-men spread themselves out to cultivate land here and there in each year, it is clear that the country which needs food and can grow it in such tracts is now being deprived of such production.

A few years ago the Government of Madras started the reclamation of the Araku Valley and I was glad to see recently that it is practically free from malaria now. A large number of villages right up to the Orissa border have had the benefit of anti-malarial measures and the fertile land of the area with its adequate rainfall should be made available for increasing the production of food needed for Madras. There will be no doubt difficulties in re-adjusting the occupation. I saw an excellent example of such overcoming of difficulties in the area held by the Rayagada Sugar Factory, just across the border. They have taken up land worth hardly ten rupees an acre, cleaned it with bulldozers, cultivated it with tractors and irrigated it with pumps. They are now raising sugarcane on the land both as irrigated crop and as rain-fed crop and the land is worth many times more than what it was.

Helping the Hill-men

In this area also there were the local hill-men with cultivation dotted here and there. But the Sugar Company under the supervision of Sri V. Ramakrishnan, Managing Director, has been able to gain the confidence of the hill-men by helping them to improve their own cultivation. The hill-men's land was cultivated also with tractors and they were helped to raise more. Sometimes the land was cultivated by the Company itself and the increased profits were given to the hill-men; sometimes the land was exchanged for other land in the vicinity of the village; sometimes the land was leased or purchased. But all this was done in a manner which gained for the Company the goodwill and affection of the hill-men.

This area is similar in regard to agrarian conditions to any other area in the Agency Tract. While maintaining the interest of the hill-men in the area which they sparsely populate, it should be possible by organisation to rearrange the cultivation so that with the help of plainsmen if possible and with the help of mechanical cultivation where it is needed and is desirable, the vast area of 20,000 square miles may be enabled to produce more food than it has hitherto done.

To remove the scourge of malaria on the Orissa side too, the World Health Organisation has sent a party to take vigorous measures. There too there is need to follow them up with improved agriculture so that malaria may not creep back into the region. Apart from any efforts on the part of Government themselves, I believe that the development of the Araku Valley Township will itself draw enterprising plainsmen to that place from which they could spread out into the underdeveloped areas round about.

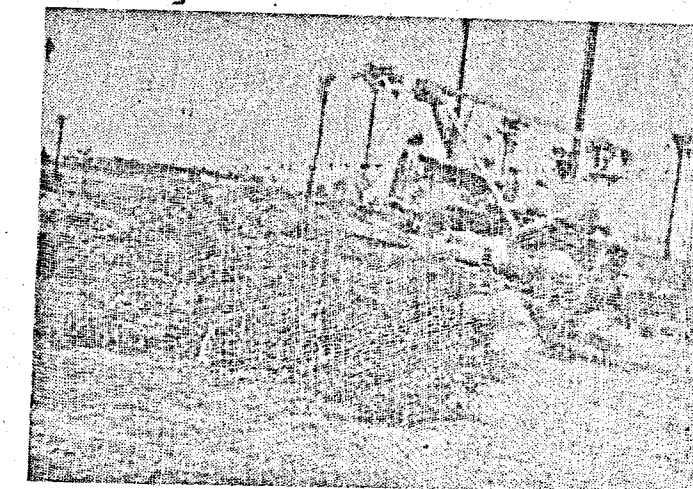
Irrigation Strategy

Another important method adopted for the Grow More Food Campaign in the improvement of irrigation. A vigorous programme of tank reconstruction has been taken on hand. The construction of new wells and repairs to old ones have been subsidised on a large scale. The use of machinery has been adopted in Mysore to desilt tanks and



Operation in progress

it seems to me that the method is capable of application to other parts of South India. But the continued drought in South India for the last four or five years has brought to light one serious difficulty in the irrigation strategy of the Grow More Food campaign. In a good year a good tank is better than a bad tank. In a bad year a bad tank and a good tank are equally bad. But wells come to the rescue



The mound gives way before the bulldozer

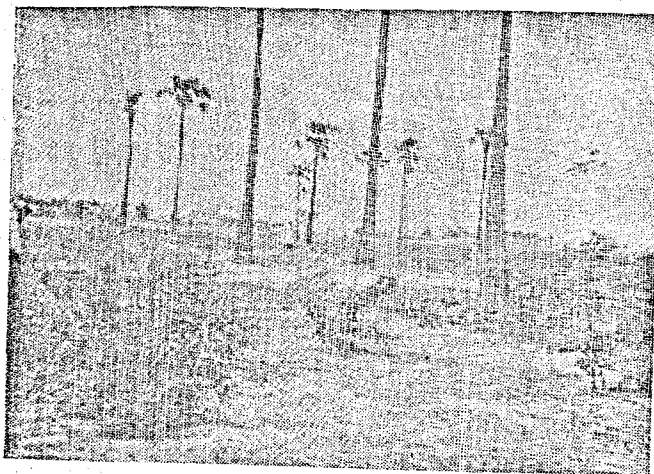
with the water that has been stored under ground. But after two or three years of drought even wells dry up. Then neither tanks nor wells nor the rivers in the region are of help. What can help is rivers from another region where there is rain even when in this region there is no rain.

South India is divided by the Western Ghats into two regions. In the region to the west of the Western Ghats there has been heavy rainfall all through these four and five years as usual but in the region to the east of the Western Ghats there has been a large-scale drought. There are only two links between these two regions whereby water from the west is brought to the east. These are the two rivers Godavari and Krishna. These have not failed during these four years. But the Cauvery which derives its supplies from the eastern region has been failing. This is the basis for pressing the construction of reservoirs on the Godavari and the Krishna in order that they may strengthen the irrigation strategy of the Grow More Food campaign. They are essential for sustaining rice production in South India. It must be remembered that the food problem of India is largely a rice problem. It is not economical to grow wheat in Northern India under the large schemes that may be taken up there and then transport the wheat to South India to supply it as food to people who are preferably rice eaters.

Nutrition Experiments

The increased production of cereals is, however, not enough because while cereals are food, food is not cereals. Self-sufficiency in food is not therefore confined to cereals. The possibility of using tubers and groundnut as a substitute for cereals in deficit has been pointed out by the Famine Enquiry Commission. Experiments as to how to combine the carbohydrate of tubers with the protein of groundnut in forms acceptable to the consumer which are nutritious and economical have been made under the auspices of the Subsidiary Foods Committee. At the Food Planning Institute, Mysore, recent experiments have shown that the addition up to 25 per cent of tapioca or sweet potato to rice or wheat does not decrease the nutritional value. This was surprising when it was previously believed that the reduction of protein would produce a reduction in quality. Apparently the balance of minerals supplied by the tubers help to keep up the nutritional value.

On the basis of this result, the present day deficit in food in India at the existing total ration of 12 ounces can be made up by tubers alone without the use even of groundnut. Tubers and groundnut together have been found to be two or three times as nutritious as rice. Tuber powder can be used with wheat atta and tuber sago can be cooked with rice without loss of quality or flavour. I venture to hope that in Madras where already a lead has been taken in Salem where over 40 factories process tapioca throughout the year and produce most of the sago consumed in India, the Agricultural Department will turn its attention to improved methods of production and processing of the tubers. Tubers are indeed the connecting link between cereals and vegetables. Nature has also produced tubers with a high degree of protein. A South American variety is being grown at Patna at the Potato Research Station by Dr. Ramanujam, formerly of Coimbatore. It contains 18 per cent of protein. Its yield in



Final view of the spot showing the level surface left by the bulldozer just after ten minutes of operation

quantity is not large, but Dr. Ramanujam hopes to improve it by cross-breeding.

Philosophy of Progress

Production is not the result of Man + Nature but of Man x Nature. The taller the man, the more the production from the same natural resources. The wider the natural resources, the greater the production by the same man. In India our crying need in production is how to increase the average yield per acre. One way of doing it is say, to add manure. But a more complete way is how to rehabilitate man. With a typical village growing paddy in South India, we may divide its fields into three classes yielding say 1,000 lb., 1,500 lb. and 2,000 lb., per acre. Call them C, B and A Classes. Let a village committee of experienced cultivators examine each field in class C and say what is needed to promote it to class B. Does it need water? If so, can a channel be extended to it or a well be dug? Does it need fertility? If so, can organic or chemical manure be provided? Does it need financial outlay? If so, can the holder be given a *takkavi* loan? Does it need labour? If so, can additional labour be arranged?

Having ascertained the needs through a village committee, a committee of Government officers consisting of a Revenue Officer, an Agricultural Officer and an Engineer should concentrate on giving all the aid required to meet the needs. By this individual treatment of fields and their owners, the C class lands can be promoted to B class lands at the end of the year like the promotion of boys from the 1st standard to the 2nd standard in a school. Each class has a definite and manageable task to perform in a year. The human material in the village will then be enabled to raise its average effectiveness by an appreciable amount. If this can be achieved in some typical villages, it should be capable of being generally applied and we shall gain the confidence that India is not a C class nation on the average but can by an effort of organization be raised in its level of practical efficiency.

Tractor and Tractor-Drawn Implements

Tractors and tractor-drawn implements have been received enthusiastically by the agriculturists of Madras State, since the introduction of the various types of bulldozers and other machinery by the Agricultural Department from 1946.

All the cultural practices of the various crops in the State are perfected for bullock power. A stage is now reached in mechanised agriculture to convince the ryots by experiments that the tractor and its implements can be profitably utilised not only for levelling preliminary ploughing and such other well-known operations but also for many more, without deviating from the present crop practices.

With a view to clear the prevalent opinion in the minds of the ryots that the tractor with the imported implements has limited application in Indian agriculture, studies on the possibilities of the various uses of the tractor on the average farm of a ryot were started by the Research Engineer at Coimbatore.

Ploughing in green manure is one of the essential agricultural operations of the State. It is to be done by a heavy pair of bullocks. Still the operation will not be perfect and turnover per day very low. The owner of an iron wheeled tractor with suitable disc plough can complete the same more perfectly on larger acreages per day, at lower costs.

Outline of Experiments

Experiments Conducted at the Sugarcane Breeding Station, Coimbatore:

Soil.—Light red with enough moisture.

Green manure crop.—Sunhemp in flowering stage, height 3½ feet.

Tractor and implements.—W6 McCormick Deering fitted with iron wheels and lugs and Massey Harris 3 disc plough—disc diameter 26.

Extent.—1½ acres. Only 19 cents of this was ploughed on first gear at 2½ miles per hour. As it was found, that the speed could be increased, the remaining area was worked on second gear at 3.125 miles per hour.

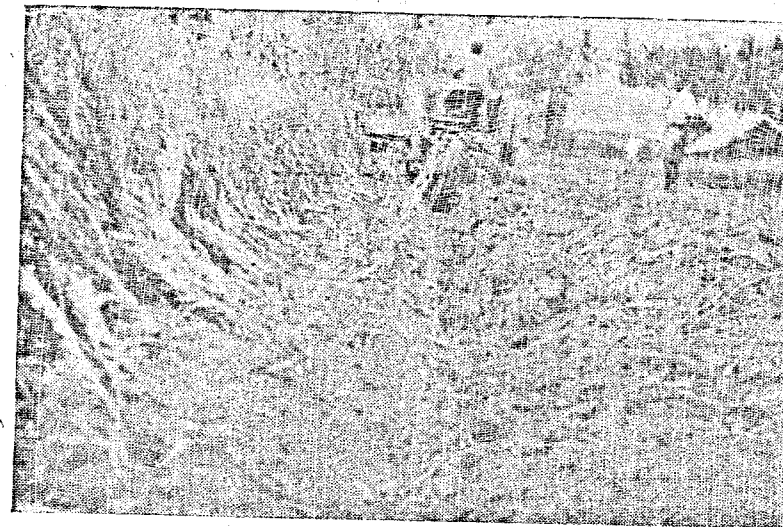
Area covered per hour.—0.40 acres on an average.

Depth of furrow.—6.5 inches on an average.

Width.—Ten inches.

Draw Bar pull (Recorded by Amsler's Self-recording Dynamometer).—Ranged from 1,167 lb. to 1,630 lb. as the area had two zones, one irrigated a fortnight prior and the other about 1½ months previously.

	RS.	A.	P.
Running costs (fuel lubricants, etc., wages of one driver and one cleaner) per acre have worked out to	7	8	5
	or		
	7	8	0

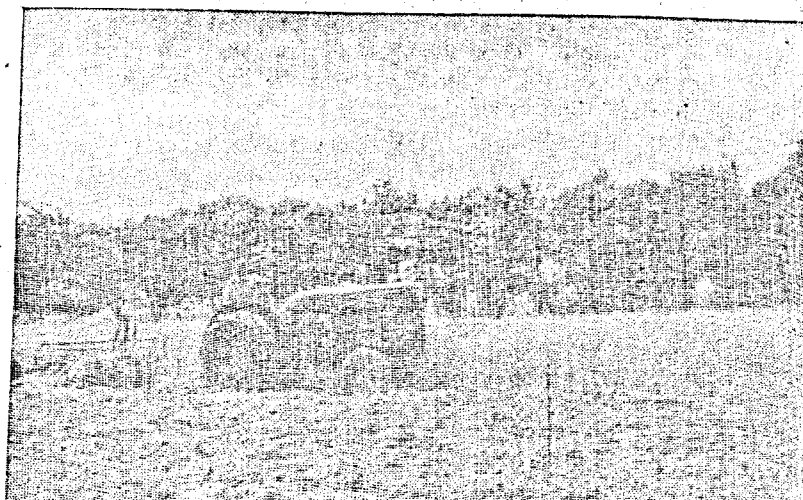


Ploughing in Green Manure with Tractor

The same operation with hired bullocks (5 pairs) at Rs. 3 per pair and 5 men at Re. 1 per man per day, per acre will cost Rs. 20 minimum.

It is evident that with a tractor, not only lower running costs per acre but also greater and more perfect turnover is achieved.

Tractor with three disc plough covering in green manure. Sunhemp at the thick Cane Breeding Station, Coimbatore



Pre-Sowing Treatment for Wild Indigo

By Sri L. VENKATARATNAM, M.Sc., Plant Physiologist, Agricultural College, Bapatla

Wild indigo (*Tephrosia Purpurea*), Telugu—*Vempali*, Tamil, Malayalam—*Kolinji*, is a useful green manure crop raised extensively in several districts in this State. The annual consumption of seed is estimated at 5,000 tons. In 1947-48, the Agricultural Department distributed 500 tons of seed to cover an additional area of about 40,000 acres as green manure crop for paddy.

This is a purely rainfed crop and the stand of the crop depends on the quality of the seed. The seeds are procured indifferently and care is not exercised in harvesting well mature seeds. The mature seeds are hard coated and do not germinate in one flush resulting in uneven and patchy growth in fields. Work done at the Agricultural Research Station, Aduthurai, Tanjore District, has indicated the wide disparity of growth as detailed below:—

Size of plants.	Number of plants selected at random.	Weight in lb.
Well-grown	5,550	1,334
Medium-sized	3,500	397
Under-sized	3,450	94

Normally a field contains only about 40 per cent of healthy well-grown plants distributed with medium-sized and stunted wiry plants germinated long after sowing. As such the yields are very low. The yield of green matter can be increased if a uniform crop is ensured. This can be achieved either by stimulating the germination in one flush or by increasing the seed germinability.

Simple Process Evolved

The ryots usually pound the seeds with sand to achieve this objective. In this process, the seeds get broken or damaged and about 25 to 40 per cent of the seeds germinate in different flushes. By a simple process, devised at the Agricultural College, Bapatla, the germination of the seeds can be considerably improved and stimulated in one flush. When the seeds are soaked in water for five minutes in water at 90°C or with boiling water cooled for a few minutes if the temperature cannot be gauged, over 60 per cent of the seeds germinate in four or five days in quick succession in a single flush as against a month's time taken by untreated seeds, to give about 30 per cent germination. Consistently good response has been secured with different samples all over this State and the treatment has no injurious effects.

Soaking the seeds in hot water before sowing is therefore a simple, economic and practicable method to secure cent per cent increase in germination and to attain a uniform crop in the field. The yield of green manure can be easily doubled in this rainfed crop without any expense or attention to the cultivation of the crop. Over 50 per cent of the seed wealth amounting to a few lakhs of rupees can be saved by adopting this method. The agriculturists are therefore advised to utilise the pre-sowing treatment for wild indigo and produce more green manure for augmenting the yield of paddy.

Crop Cutting Experiments

For work connected with the five year co-ordinate scheme for conducting crop cutting experiment on paddy, ragi, cholam and cumbu and the scheme for the statistical assessment of the results due to Grow More Food Aids, the Government have sanctioned the employment of the following technical staff:

One Deputy Director of Agriculture, one Junior Statistical Officer, two Statistical Assistants and two Computers.

Besides these appointments, eight District Agricultural Officers will be employed in the eight regional headquarters and the districts of jurisdiction of these officers will be as follows:—

Headquarters	Jurisdiction
1 Kakinada	Visakhapatnam, East Godavari and West Godavari.
2 Vijayavada	Krishna, Guntur and Nellore.
3 Bellary	Kurnool, Bellary, Anantapur and Cuddapah.
4 Madras	Chingleput, Chittoor and North Arcot.
5 Tanjore	South Arcot, Tanjore, Tiruchirappalli.
6 Madhurai	Madhurai, Ramanathapuram, and Tirunelveli.
7 Coimbatore	Salem, Coimbatore and the Nilgiris.
8 Kozhikode	South Kanara and Malabar.

Distribution of Fertilisers

On the suggestion of the Government of India, the Government of Madras have decided to implement immediately a scheme for the concentrated supply of chemical fertilisers in the deltaic areas of the districts of East Godavari, West Godavari, Krishna, Guntur, Nellore, Tanjore, Tiruchirappalli, Madhurai, Tirunelveli, which are commanded by major irrigation projects and river channels. The Government have also sanctioned the employment of special staff.

In order to overcome the disinclination of the delta ryots to use sulphate ammonia for the first crop paddy and to increase the offtake of sulphate ammonia, the Government consider it necessary that steps should be taken on the organisational and propaganda side and that the ryots should be granted *takkavi* loans liberally in these areas. The Government, therefore, have directed the agricultural loans for the purchase of fertilisers be granted to the ryots liberally in these areas. The recovery of loans from the agriculturists will be effected soon after the next harvest of the long-time crop.

During June 1950 the Government have sanctioned the following:

Visakhapatnam District:

(1) The detailed investigation of the scheme for the formation of a reservoir across the Gambhirammedda in Bheemunipatnam Taluk, near its 11th mile and the excavation of the necessary supply channels therefrom. By the execution of this work it is expected that a minimum of 1,155 acres of land will be brought under cultivation and that better irrigation facilities will be made available to an extent of 345 acres of wet land under minor tanks and gedda channels. The additional annual production of foodgrains expected as a result of the execution of the scheme is estimated at 620 tons of rice.

(2) The detailed investigation of the scheme for the excavation of a right bank channel from above Thotapalli regulator across the Nagavalli River in Parvatipur Taluk, and for the extension beyond its tail end of the existing Sekharapalli channel taking off from the Swarnamukhi River for the provision of better irrigation facilities to about 5,700 acres of existing wet lands under various tanks and channels and for bringing under irrigation about 3,300 acres of dry and waste lands in Bobbili village, Kurupamard-Jeypore-Kusarika estates besides some Government villages. The additional annual yield of foodgrains expected as a result of the execution of the scheme is estimated at 2,362 tons.

(3) The detailed investigation of the Gadigummi Reservoir Scheme for the formation of a reservoir on the Bodderu near Gadigummi in Golugonda Taluk, and the construction of a pick-up anicut lower down with a channel taking off from it to provide better irrigation facilities to an existing ayacut 456 acres and to bring under cultivation a new area of 2,474 acres, on either side of Krishnadevipeta-Narasapatnam road. The annual additional yield of foodgrains expected as a result of the execution of the scheme is estimated at 647 tons of rice.

(4) The detailed investigation of the Mamidipalligedda Scheme for the construction of an anicut across the Swarnamukhi River (known as Mamidipalligedda at Mamidipalli village) near Mamidipalli village in Salur Taluk, to benefit 1,000 acres of existing irrigation, and to bring under cultivation 2,346 acres of new land in the taluk. The additional annual production of foodgrains expected as a result of the execution of the scheme is estimated at 1,269 tons of rice.

Vayalur Tank

During the month of July 1950 the Government sanctioned the work of improvements to the surplus works of the Vayalur tank in Vridhachalam Taluk, South Arcot District. The Vayalur tank is a railway affecting tank, the line liable to be affected by it being the Villupuram-Tiruchi Chord line and it serves an ayacut of 347 acres. The tank breached in the cyclones of 1941, 1943 and 1946. The existing surplus works are not capable of discharging the

entire floods from the catchment. In order to provide for the disposal of the entire discharge from the catchment, it is proposed to construct an additional Calingula for a length of 344 ft. at the right flank, with top of dam stones at the F.T.L. of 127.42 and also to raise the M.W.L. by 0.5 ft. These improvements which are quite essential to ensure the safety of the tank against the recurrence of breaches during floods are estimated to cost Rs. 23,030 and the Government sanctioned them for immediate execution.

6,103 Political Sufferers Get Land

Up to the end of the May 1950, 6,103 political sufferers have been assigned lands, under the Land Assignment Scheme of the Madras Government.

So far 21,112 political sufferers have applied for the grant of lands and 9,241 applications have been disposed of; 3,138 applications were rejected.

It may be recalled in this connection that the Government under the scheme of assignment of lands made the political sufferers eligible for the grant of 5 acres of wet or 10 acres of dry land irrespective of the extent of land or property already owned by them.

Remission of Assessment

The Government have ordered remission of assessment on the following scales, in respect of wet and manavari lands in Alangudi, Kulathur and Thirumayam Taluks of Pudukkottai division, Tiruchirappalli District, which have been affected by adverse seasonal conditions:

- (1) Full remission for lands with an out-turn of 4 as. and below;
- (2) Half remission for lands with an out-turn of above 4 as. and below 8 as.
- (3) Full remission for all fields on which there has been "Constructive total loss."
- (4) Full remission for lands left waste owing to lack of supply in the irrigation source except for manul wastes.

The Government have also ordered the postponement of the collection of loan instalments in these three taluks.

Just Published

"ON THE RED TRAIL"

Exposing the futile policies and desperate tactics of anti-social elements in Madras State.

Published by the Department of Information and Publicity, Fort St. George, Madras.

Price Annas Four.

The Mothers' Cry

By Dr. Mrs. S. MUTHULAKSHMI REDDI

In the history of child-reform in England Mrs. Browning wrote a poem named 'The Children's Cry' which opened the eyes of the British public to the urgent need of child care and child protection in factories. Now in India, we are having not only the children's cry but also that of the mothers, widows and deserted wives.

Every one knows that the country is going through acute economic distress due to famine, flood, fire, unemployment, sickness and crimes. Women and children are the first to suffer from these misfortunes. Because of the social ban on widow re-marriage in spite of the legal sanction, we have a large number of widows in our midst which fact is already known to us. There is yet another problem even more acute than the widow's problem. Here is a frequent tale of sorrow as related by the destitute wives and mothers seeking admission into the Arvai Home; it is either desertion or neglect or ill-treatment by their husbands due to the latter's misbehaviour. The prevention of polygamy by law has not found the remedy. These delinquent husbands either run away from their native homes leaving their wives and children to their fate or keep a mistress in the same house, thus causing mental agony and distress to the wives and children. These innocent wives are mostly illiterate, poor and friendless and not in a position to seek justice in a court of law.

Pathetic Appeals

That is how many deserted and destitute mothers with their children come to the door of Arvai Home for help. The most pathetic of all is the sight that we see daily in our premises—of mothers and their children pleading for admission. Going through the applications pouring in from all the districts, for admission into the Arvai Home and Orphanage, we have passed resolutions in the Anniversary meeting that in each district homes for orphan and destitute women should be started by local bodies or philanthropic associations in co-operation with the Government. This has been given wide publicity through the press also. But all the same, hundreds and thousands of applications—not only applications but also children and women come to the very door of the Arvai Home and make a pathetic appeal for admission.

Mothers with half-a-dozen children helplessly make pathetic appeals. Our resources are limited both in accommodation and in finance. Further, the cost of living has become high, so also the salaries of teachers and workers and the rent of the buildings. Honorary services cannot be thought of in these days of hard living conditions and further it cannot be depended upon.

Need for National Planning

Therefore, the Government and our leaders have to think out ways and means for giving succour to these destitute who crowd into the city helplessly and in despair for food and shelter. There should be national planning on a wide scale at a minimum expenditure. Now, the

only way is to open up colonies for destitute mothers and their children. And while children are fed and educated, the mothers and other adult women should be made to work side by side so as to earn their livelihood and make themselves self-supporting. The mothers should never be separated from their children and infants; the mother's love is unique and is of a divine nature. This bond between the mothers and the children should be encouraged and not torn asunder.

Now, many a high caste Hindu mothers, though illiterate and not fit for any learned profession, are capable cooks and house-keepers. I have been recommending them for employment in rich families. There they earn a decent salary in addition to their food, clothing and medical aid. These mothers are able to give a part of their salary for the benefit of their children.

Divinity of Mother Love

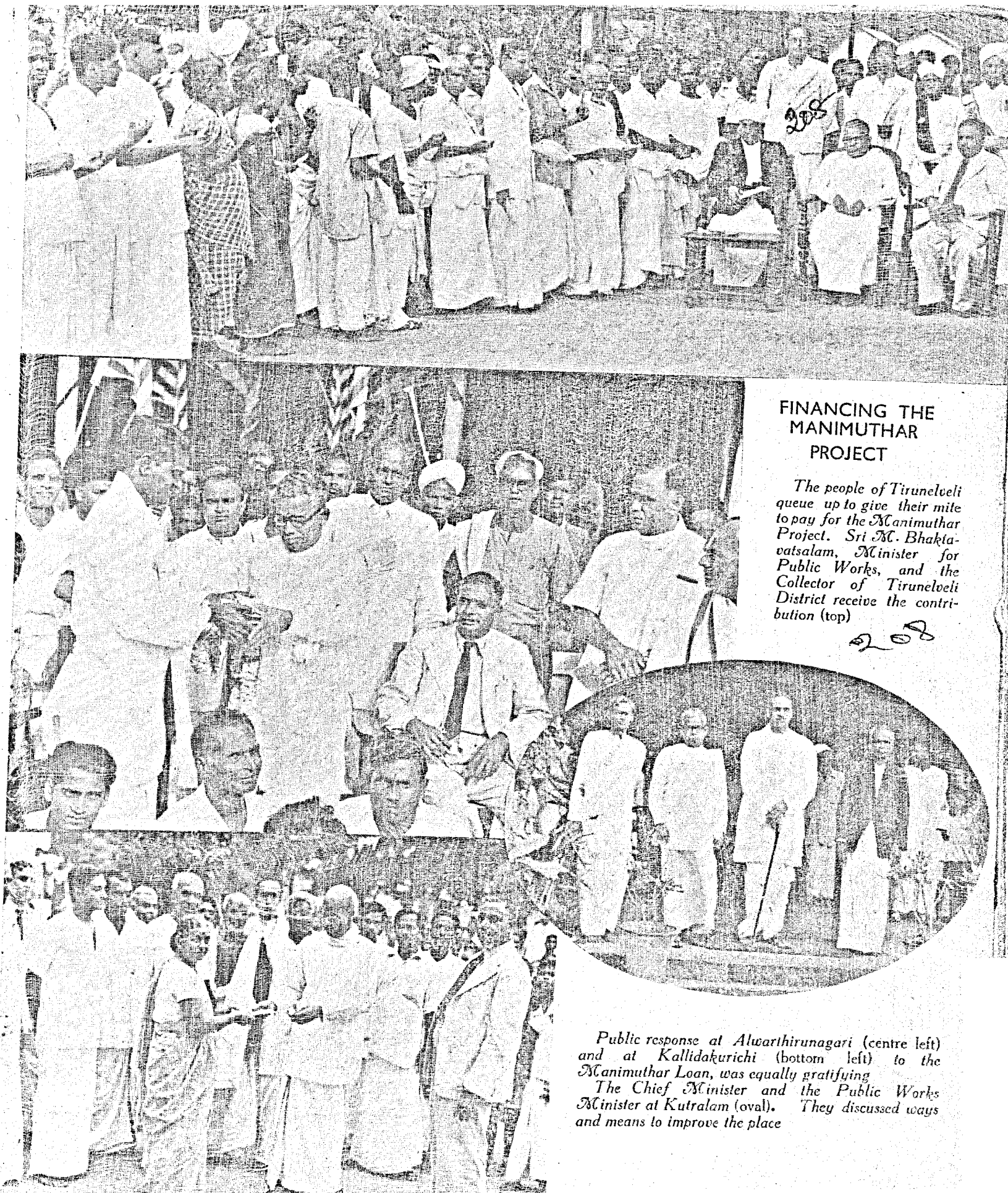
How wonderful that these mothers, though poor and ignorant, love their children and are willing to undergo any amount of privations though the father of the children has deserted his family! That is why I have come to realise that this human contact between the mother and the child makes both these better human beings and keeps both of them tied together by the silken bond of love and responsibility. That is why Hindu mythology and the Hindu religion have given the highest place to a mother and all our prayers are addressed to the Mother Divine.

In the Christian religion also a similar idea is expressed in the worship of mother Mary and infant Jesus. In the homes of unmarried mothers in the West this bond between the mothers and the child is kept and the mother is given all possible help for settlement in honourable life. Motherhood, whether in wedlock or out of wedlock, should receive all consideration and sympathy both from the State

Madras Loan Oversubscribed

Of the Madras Government's loan of Rs. 4 crores, rupees three crores were open to the public and it was oversubscribed to the extent of Rs. 18 lakhs. This portion of the loan closed at 1.30 p.m. on 31st July 1950 and the bank will make proportional allotment to subscribers.

The balance of rupees one crore reserved for the agriculturists of Tirunelveli for financing the Manimuthar Irrigation Project was also oversubscribed by Rs. 28 lakhs and the entire amount of Rs. 128 lakhs will be fully allotted by the Reserve Bank to the Madras Government's account.



FINANCING THE MANIMUTHAR PROJECT

The people of Tirunelveli queue up to give their mite to pay for the Manimuthar Project. Sri M. Bhaktavatsalam, Minister for Public Works, and the Collector of Tirunelveli District receive the contribution (top)

Public response at Alwarthirunagari (centre left) and at Kallidakurichi (bottom left) to the Manimuthar Loan, was equally gratifying. The Chief Minister and the Public Works Minister at Kutralam (oval). They discussed ways and means to improve the place

NEWS AND NOTES

Short-term Military Training for Civilians

In a free and democratic India, the responsibility for maintenance of peace, law and order, does not rest merely on the police, or in times of extreme emergency the military. In the old regime this task could only be fulfilled by the police; but now, in an independent India, circumstances have changed and people's outlook also should change. The maintenance of peace and order, so essential for the progress of the country is no less a responsibility of the people as of the police and the Army. Yet how many of us have realized our responsibility as citizens on whom lies a paramount duty? How often have a handful of anti-social elements been able to indulge in mischief, disorder and violence with loss to public and private property and life, while the public looked upon them helplessly? It should not be difficult to check the lawlessness of a handful of anti-social elements if the common people are trained to prevent such acts of violence and crime and help the authorities and the Government in the maintenance of peace and security.

The people who are the back-bone of the country have to learn the technique of discipline. A disciplined public is an asset to national well being. It is wrong to think that discipline has its place only in the Army, Police and in the other allied services. Civilians also have to develop a sense of discipline in order to safeguard liberty and public security. A small band of well-organized people can easily prevent anti-social elements having their way. It is with this object in view that General Cariappa, the Commander-in-Chief of India, has suggested a course of voluntary short-term military training for all the civilians.

Students of schools and colleges receive some training through the Scout movement and National Cadet Corps, but the general public have no opportunity to receive any training. But under the new scheme of voluntary military training the military and the Police will train the civilians in the first instance for an hour a week. Civilian volunteers between 15 and 35 years of age will be asked to assemble at a fixed time once a week and they will be organized in small squads of 15 to 20 each. The training will consist of physical exercises, squad drills without rifles and marching in military formation. The whole course will consist of six parades of one hour a week. The military training will be given free of cost and no uniform is prescribed. These aspects of voluntary training to civilians were stressed by Sri R. M. Mahadevan, Deputy Commissioner of Police, in a recent broadcast from A.I.R., Madras. Commending the scheme of voluntary training Mr. Mahadevan appealed through his broadcast:

"India needs at this hour valiant men who will safeguard her unity, enhance her national strength and solidarity and help her to take her rightful place in the comity of Nations. In a few weeks more, we shall be entering on a new life as a great Republic. Our name is respected far and wide. Pandit Jawaharlal as Prime Minister and Sardar Patel as Home Minister have accomplished marvels within these two years. What have we, the common people, done to deserve this liberty which has been won in such a brilliant manner without shedding a drop of blood? India expects every one of her sons to do his duty and one such duty is to undergo the military training that will be given to civilians under Government auspices and make ourselves a strong people, not with the idea of waging aggressive wars which is foreign to our genius, but for maintaining internal peace and keeping anti-social elements in their proper place. I earnestly appeal to all of you who may be listening to me to avail yourselves of this golden opportunity."

I have in my life never been guilty of saying things I did not mean—my nature is to go straight to the heart and if often I fail in doing so for the time being. I know that truth will ultimately make itself heard and felt, as it has often done in my experience.

—MAHATMAJI.

"MADRAS"

(Republic Souvenir published by the Government of Madras.)

An attractively got-up fully illustrated publication full of useful and informative articles.

Price Rupee one only.

Only a few copies left.

Write to:

The Director of Information and Publicity,
Government of Madras,
Fort St. George, Madras.



FINANCE

Madras And Income-Tax Allocation

By HON. SRI B. GOPALA REDDI, Finance Minister, Madras.

The re-examination of the allocation of income-tax proceeds between the Provinces is afoot once again and Government of India have appointed Sir Chintamani Deshmukh to settle this vexed question. The Provincial Governments are naturally looking forward with great expectation how the new revision is going to affect their finances and their future development. There is no consensus of opinion among the provinces with regard to the principles of allocation, for Bombay and Bengal have taken right from the beginning a different attitude from the rest of the Provinces.

Montague-Chelmsford Report which introduced partial responsible Government in the Provinces and which laid the foundations for Provincial Autonomy went into the question of assigning separate Heads of Revenues for the Centre and the Provinces. The Devolution Rules published in 1920 under the then Government of India Act gave specific sources of revenue for the Provinces and created a separate Finance Department in the Provincial Secretariat. But they felt that Centre would not have enough resources to shoulder their responsibilities and wanted the Provinces to feed the Centre by annual contributions. But their proposal "met with much opposition, particularly from the agricultural Provinces of Madras and United Provinces whose aggregate initial contributions, as proposed in the Report, had been fixed at more than half the total contribution from all the Provinces."

On the suggestion of the Government of India, which was approved by the Joint Select Committee of Parliament, a three-man Committee known as the Financial Relations Committee, was appointed with Lord Meston as Chairman. The Committee submitted its Report in March 1920. It generally endorsed the joint report of Montague and Chelmsford and advised against allocating income-tax proceeds between the Centre and Provinces; but it also recognized that it would not be possible permanently to exclude Provincial Governments from some form of direct taxation upon the industrial and commercial earnings of the people. Meston Report also endorsed the Provincial contribution principle and assessed the initial contributions on the increased spending power of each Province resulting from the new scheme of distribution, i.e., the additional income which each Province would acquire on the separation of the sources of revenue. Meston Report in turn was criticised severely and Madras in particular protested against the iniquitous levy which fell very heavily on the Government. The Meston plan was reconsidered by a Joint Select Committee of Parliament. It definitely opposed the Provincialization of the income-tax proceeds, but recommended some share in the increase of revenue from income tax to the Provinces and Parliament adopted and incorporated this principle in the Devolution Rules of 1920. That is the beginning of the Provinces sharing a moiety of what accrues from income-tax. Thus we began with a little

share in the income-tax and with a heavy contribution to the Centre. Under Rule 15 of the Devolution Rules, the Provincial Government would be entitled to a quarter-anna in the rupee for that portion of the assessed income of any year subsequent to 1920-21 which is in excess of what was collected in 1920-21.

Madras was singled out for a very heavy contribution. The following figures speak for themselves:—

	RS.
Madras	348 lakhs (roundly).
United Provinces	240 "
Punjab	175 "
Bengal	63 "
Bombay	56 "
Central Provinces	22 "
Assam	15 "
Bihar and Orissa was to make no contribution at all.	

The opposition to these Provincial levies became very pointed and they were gradually reduced and finally extinguished in 1927-28. For six years Madras made these contributions to the Centre. From 1921-22 to 1924-25 (four years) Madras Government paid Rs. 348 lakhs per year; in 1925-26 it was reduced to Rs. 222 lakhs, in 1926-27, the last year of such payment it was Rs. 165 lakhs. Thus in all Rs. 1,779 lakhs have been contributed to the Centre from Madras. The share in the incometax proceeds which Madras Government got from 1921-22 to 1930-31 was as follows:—

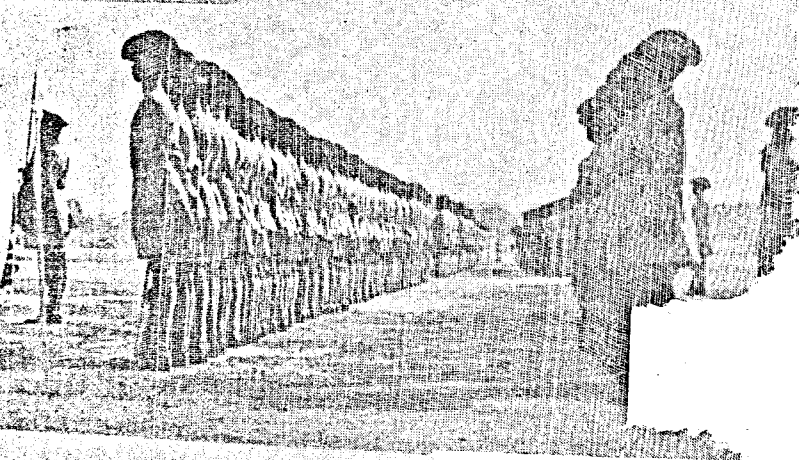
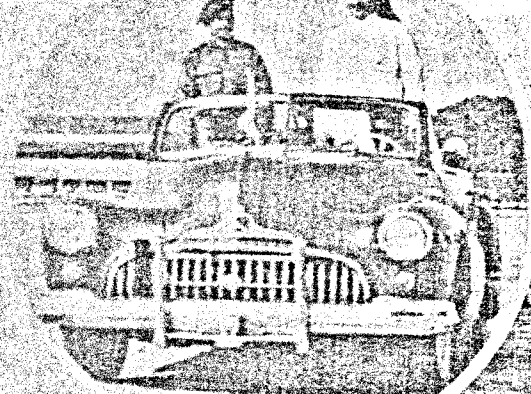
	RS.
1921-22	3 lakhs (roundly). (Gross revenue Rs. 40 lakhs; assignment to Government of India Rs. 36 lakhs; expenses of collection Rs. 1 lakh; balance 3 lakhs.)
1922-23	Nil.
1923-24	11 lakhs.
1924-25	2 "
1925-26	4 "
1926-27	5 "
1927-28	6 "
1928-29	5 "
1929-30	7 "
1930-31	7 "
	50 "

Thus for Rs. 1,779 lakhs contributed by the Madras Government to the Centre, Madras got back Rs. 50 lakhs in the form of sharing of income-tax on the quarter-anna-in-the-rupee basis. After 1930-31 depression set in and the

INDEPENDENCE DAY AUGUST 15, 1950



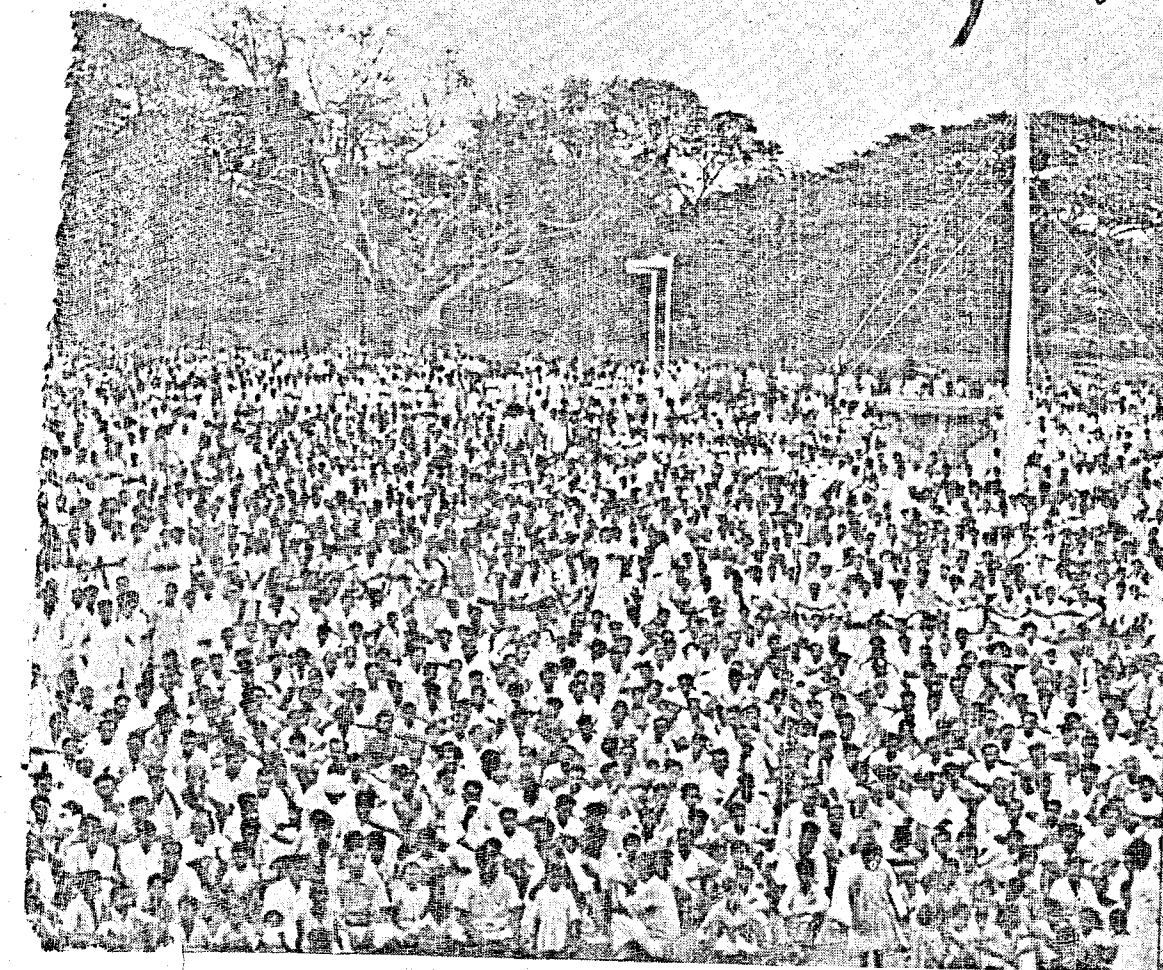
The Chief Minister receives H.E. the Governor of Madras, and introduces the Services Chiefs and Police officials (top)



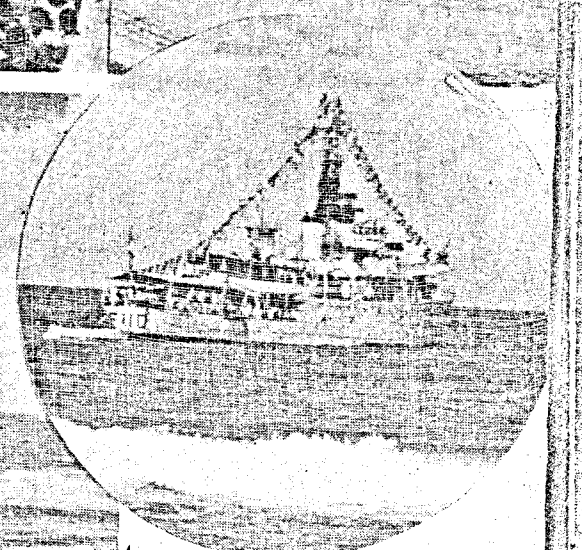
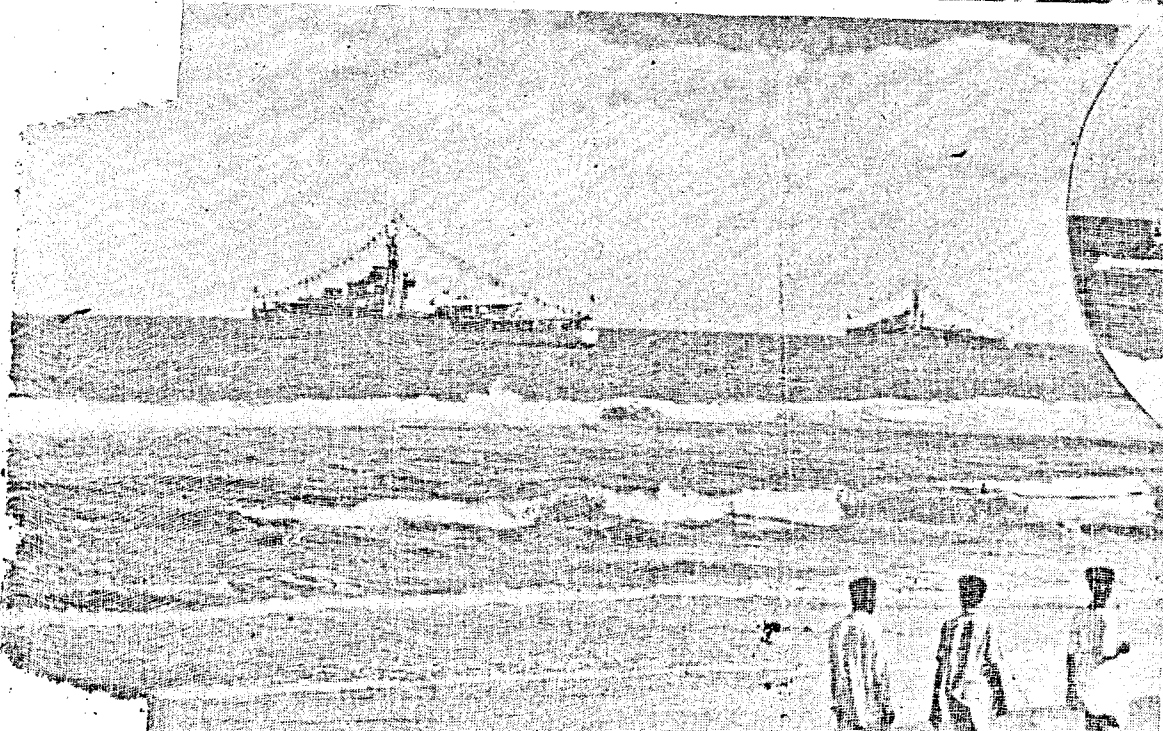
Above: Review of Parade by H.E. the Governor



From left to right: A march past by infantry and mounted units



209



Leaders addressed mass meetings on Independence Day

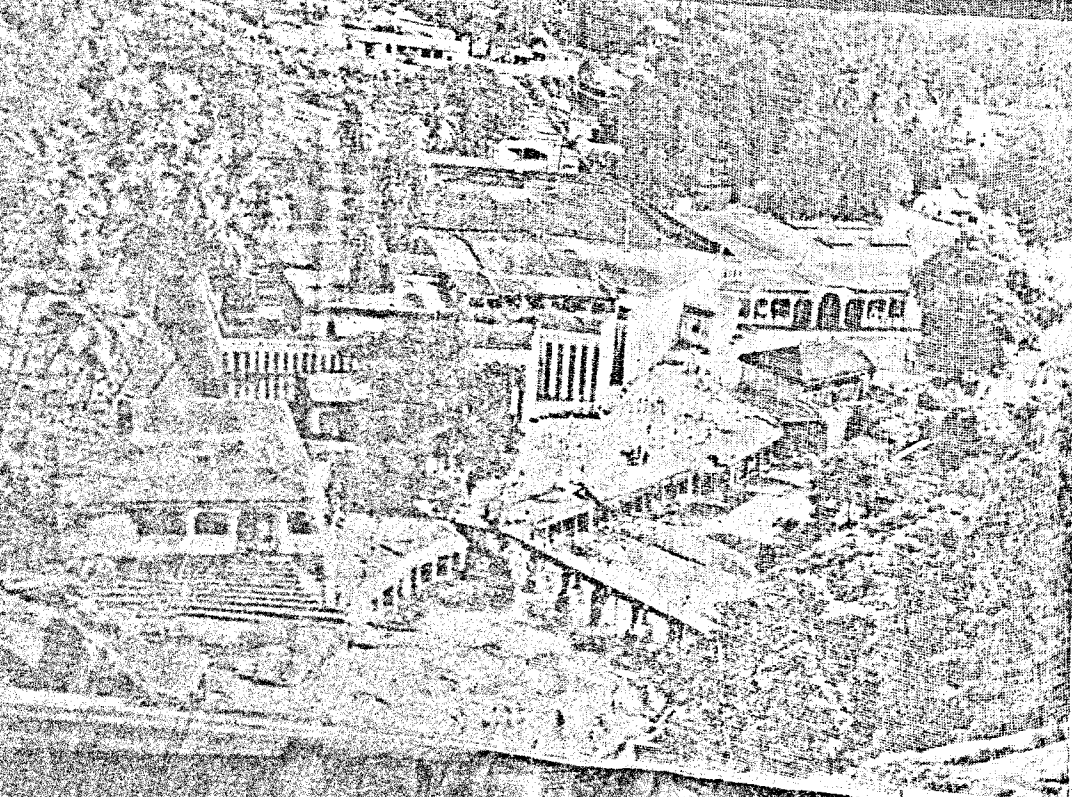
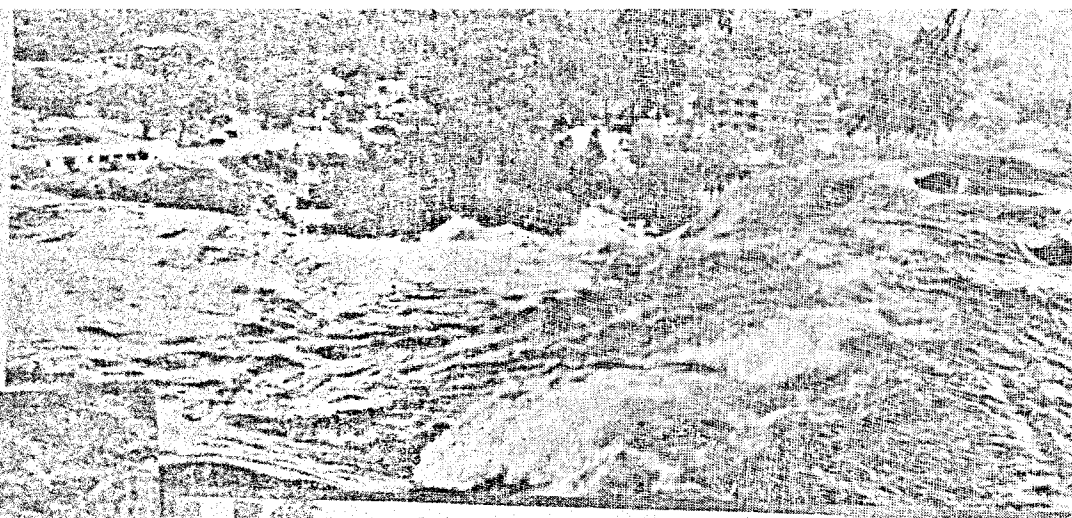
Ships of the Indian Navy were anchored off the Madras Marina, decorated and illuminated

KUTRALAM SCENES

The waters surge in froth and foam at the top of the falls (right)

A view of the five falls (below)

Pilgrims and health-seekers leave after a refreshing dip in the salutary waters (centre right)



A view of the famous bathing spot, showing the bridge and the temple. The old-world charm of the place has remained unchanged since a century ago.

WOMEN'S WELFARE

21

MADRAS INFORMATION

as well as from the enlightened public, because these unfortunate unmarried mothers are the victims of unequal moral standards prevalent in our present-day society. While the stronger man is condoned for his action and left scot-free, the woman alone is burdened with responsibility of a mutual act; but the law and our moral code should be based on justice to all irrespective of sex.

Aid for Destitute Mothers

A mother with children is not acceptable to any house for employment as no master wishes to be burdened with children and they prefer only single women for work in a house. Again, no charitable institution can afford to admit half-a-dozen children at a time from one single family. All the same, we have to recognize the fact that children as the future citizens have to be provided with all facilities for their normal physical, moral, mental and spiritual development. The nation owes to every child the best that it can give irrespective of caste, creed or colour.

We thought that the Government Women's Welfare Department would be able to meet the situation and open its doors freely and ungrudgingly to all destitute mothers, widows and women who seek its shelter. Now we have found that the Women's Welfare Department is not able to cope with the present demand for admission. The Service Home for Women does not admit more than hundred women. What is this hundred women when compared with thousands of women and children who are in absolute need? The Government's finance cannot permit the ever increasing number of scholarships of Rs. 25 per head in addition to the payment of the staff and the rent of the buildings.

Farming Colony Suggested

Therefore, our humble suggestion is that the Home should be shifted to a place outside Madras and be located on a big farm with well-thought out schemes of cottage industries, cultivation of grains, fruits and vegetables, etc. Every child should be taught the three R's in addition to the training for citizenship and training for life. Also, the elders should be provided with all the facilities for earning their livelihood in a healthy environment and in a manner that it can promote their moral, spiritual, mental and physical development.

Even certified schools for children should be provided with large acres of cultivable land so as to bring them in contact with the natural surroundings face to face with Nature which alone will give them health and joy. This problem of saving mothers and children requires urgent attention and an immediate solution. It has been my sad experience that the boys and the girls who were discharged from the certified schools after years of detention there not only require further protection and training for honourable settlement in life but also seem to be reluctant to take up any responsible work involving physical and mental effort. This requires deep thinking on the part of the authorities who are spending lakhs of rupees over these schools.

Government colleges, both arts and professional, have set a limit to admissions though the pupils are willing

to pay their fees. But orphanages and homes for the destitutes are unable to limit their admissions or follow any Communal G.O. Most of the students seeking admission into such Homes expect free boarding, lodging, free education and free school equipment. They do not at all realize that the upkeep of the Home depends chiefly on the generosity of the rich and well-to-do public.

A Fine Western Example

I also wish to point out that officers of the State receiving a decent salary and also well-to-do friends constantly keep recommending free admissions into such Homes. It would be kinder on their part if their moral support to these deserving destitutes is combined with material assistance, by subscription either monthly or annually. Some of them even do not enclose stamps for replies and expect this poor Home to bear the postal expenses also.

Collections are also difficult in these days because most of the money is accumulated among people who have no idea of the suffering among the poor and who do not at all come in contact with the poor humanity. Only personal influence and personal talks succeed in squeezing out money from these rich class to help the poor and any appeal by letter or through press or by a messenger does not produce any result. Soon after the publications in the press of our celebrations and meetings and public appeals for funds, more and more destitute women and children are attracted to these Homes.

The experience is entirely different in other countries. Anonymous donations by rich contributors to any charitable institution are a common phenomena. Rich persons do not adopt children when they are childless but give away their accumulated wealth to orphanages, educational institutions and hospitals. That is why begging and delinquency among children are not so prevalent. We have copied many a habit from the West. Could we not follow this good example?

Illicit Distillers Caught Red-handed Through Public Co-operation

Timely information furnished to the Police by a private person led to the arrest of two persons who were engaged in the manufacture of illicit arrack. Sri P. Hari Rao noticed that two persons, Ratnaswami Nadar and S. Doraiswami Nadar of Umamaheswarapuram village in Bitragunta Police Station limits, were preparing illicit arrack and selling it to the Railway employees and criminals of Bitragunta. He communicated the information to the Police.

The Bitragunta Police raided the houses of the two persons on the night of 24th and 25th April 1950 while they were actually preparing the illicit product and arrested them, seized the materials used for the manufacture and recovered 20 seers of fermented juice. The two were charged under Section 4 (1) (g) of the Madras Prohibition Act before the Stationary Sub-Magistrate, Kavali, who convicted and sentenced them to undergo rigorous imprisonment for four months.

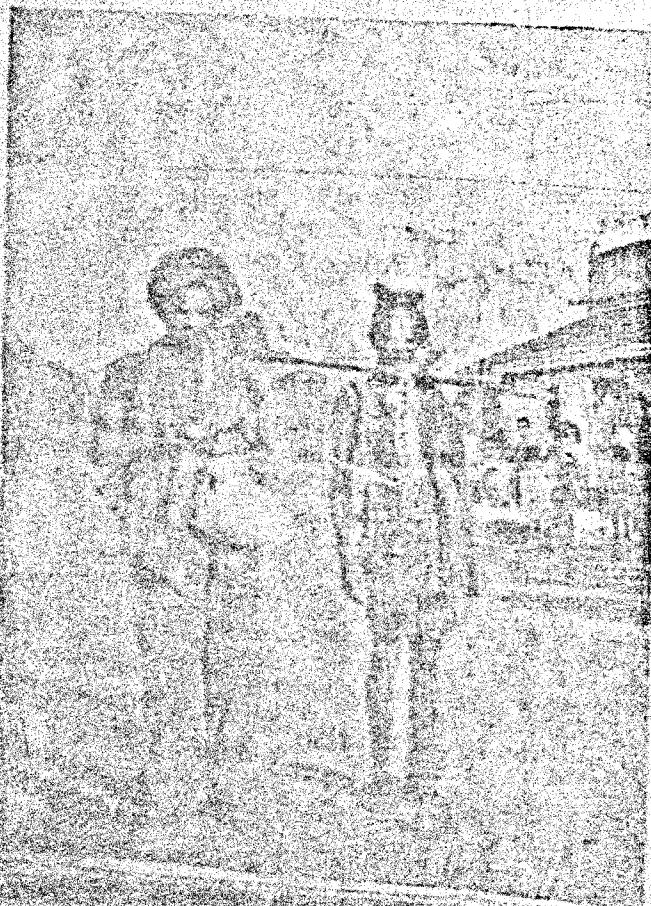
The Kambalathars

Almost every one in Tamil Nad is familiar with the *Kudakudupandi*, the soothsayer who goes about the streets of towns and villages in the small hours of the morning, sounding a small drum-like contrivance with his hand and chanting the names of all sorts of deities and forecasting the future of almost every householder who is generally fast asleep at the time. These men again go through the streets in daytime, uttering prophecies and begging for alms in return. Almost always, they ask for old clothes rather than alms in the shape of grain, which the average beggar takes. Nevertheless, begging is their only profession.

The average man who just obliges such a beggar rarely stops to think where he comes from, or where he goes; much less, how he ekes out a livelihood by such means. It would therefore be interesting to the public at large if they knew that a community of people, inhabiting Tiruchirappalli District who practice this profession, have peculiar customs and manners—some of which are unique and praiseworthy; and also that an attempt is being made in a humble way to effect their social uplift by a Gramasangham working under the guidance of the Prohibition (Amelioration) staff in Tiruchirappalli District.

This pioneering effort has been sponsored by the officers of the Samudram Gramasangham in the Manappal Sub-taluk of Tiruchy District. Samudram is a

Typical Kambalathars in their picturesque robes.



village situated on the Tiruchi-Madurai Railway line and is a railway station. In this village alone there are about 35 families of these people locally known as *Kambalathars*. It is said that scattered over the whole of Tamil Nad, there are about 500 to 600 families of this community, numbering about 3,000 people in all.

The *Kambalathars* of Samudram claim that their village is the nerve centre of the social and communal activities of all these people. At any rate, by all accounts, many people of this community living in Tiruchirappalli and adjoining districts look to Samudram for a lead in all matters. One form in which this aspect of their life manifests itself is in the shape of periodical communal meetings convened at Samudram, whenever necessary. It is said that representatives from various places make it a point to attend such meetings to take part in their proceedings.

General Traits and Habits

A study of the social customs and habits of these people by the officials of the Gramasangham has shown that these people have the following chief characteristics. From time immemorial, begging has been accepted and practised by them as their profession in life. For this purpose they go about all places, far and near, and return home only at long intervals. Apart from acting as soothsayers, they also practice putting on disguises (*payal vesham*) and use these arts as aids to their profession. They live in small huts, often several families huddled together in a single house. Almost every one is illiterate and they are in an exceptionally backward condition in this regard. So far as Tiruchirappalli District is concerned, they are reported to live in appreciable numbers in the villages of Arungavur, Nannimangalam, Neiveli, Chettimangalam, Thottiam, etc.

Among themselves, they have a sort of group system of life; ten families form one group, with a group leader who is called the "*Peddakappu*." He acts as a sort of patriarch and is authorised to speak and act on behalf of the families of the group at all communal meetings. Above all, they all owe allegiance to a common "Guru" who is a native of Kancheepuram in Chingleput District; his family has been holding this position hereditarily. These people decide all disputes among themselves and such of those as cannot be done so are decided by the Guru, whose decision is implicitly accepted as final. Strange to say, these "beggars" have somehow been managing to pay this Guru substantial sums as their "offerings" to him, during his periodical visits, apart from the payment of "fines" imposed by him in such of those individual cases as are decided by him. It may be noted that all these individual cases are decided by him. All these features presuppose a unique system of discipline in all their activities.

Code of Conduct

These unlettered men have certain rigid and rigorous codes of private and public conduct which are worthy of praise and possibly emulation by others. In the first

place, stealing in any shape or form is prohibited and he who offends this law is subjected to trial by communal elders and punished with heavy fines and public disgrace. Secondly, courtesy and hospitality to guests is an equally important quality enjoined on everyone. It is said that that however poor one may be, he must share what little he has with his relatives or guests who happen to be under the same roof. Similarly, quarrels and disorderly behaviour or the use of objectionable language to one another are strictly forbidden; and transgression of this code entails trial and punishment.

More than all, in no case can any dispute however grave be taken to a court; it can only be referred to the communal elders (*Peddakapus*) for decision which must be accepted as binding. These traits have in addition to a very strong sense of discipline, brought about a unique feature of cohesion in their social structure and life. Naturally therefore, they have had very little contact with outsiders and have been leading a sort of snail-like life with the shell of their social customs.

Peculiar Social Customs

Marriage.—These people have evolved a peculiar social custom in which he who seeks the hand of a bride must undergo a sort of "probation" before being accepted as a fit "bridegroom". For this purpose he must live as a member of the bride's family for six months and must satisfy the parents by his behaviour that he is a worthy bridegroom. They should also be satisfied that the two are on good terms and like each other and that their married life would be happy. It is only then that their marriage is allowed. Even after the marriage, the two should live with the bride's parents until they beget two children. The idea seems to be that until then they are too young and inexperienced to venture alone on independent life; possibly, this "course" is expected to develop and cement the ties of affection also. It is only after such a probationary life that the man and wife are allowed to set up an independent household.

Group meetings.—It is said that these people convene meetings of the community at different centres, whenever necessary. The main work done at such meetings is the disposal of disputes that might be referred to them. It is the duty of the several group leaders or *Peddakapus* to attend all such meetings. If the meeting is confined to a single village, it may not entail much expense. For bigger gatherings, at which people from different places have to assemble, it is said the men come by road or rail; and the actual travelling expenses of each *Peddakapu* are defrayed by the families of the group concerned. At these meetings, these elders hear all pending cases and settle them. One important point worthy of note is that a high degree of honesty and incorruptibility is enjoined both on these "judges" and the witnesses. Any one who utters a lie or deviates from strict impartiality in his judgment is liable in his turn to be tried and punished.

The man who is found guilty is punished with a fine, suitable to the gravity of the offence. The fine amounts collected are said to be divided among the several *Peddakapus* assembled. Though they are nomadic people, news of such meetings is said to be effectively conveyed through

word of mouth and everyone invariably manages to attend at the appointed time and place. The news, it is said, is relayed from place to place by these wandering beggars.

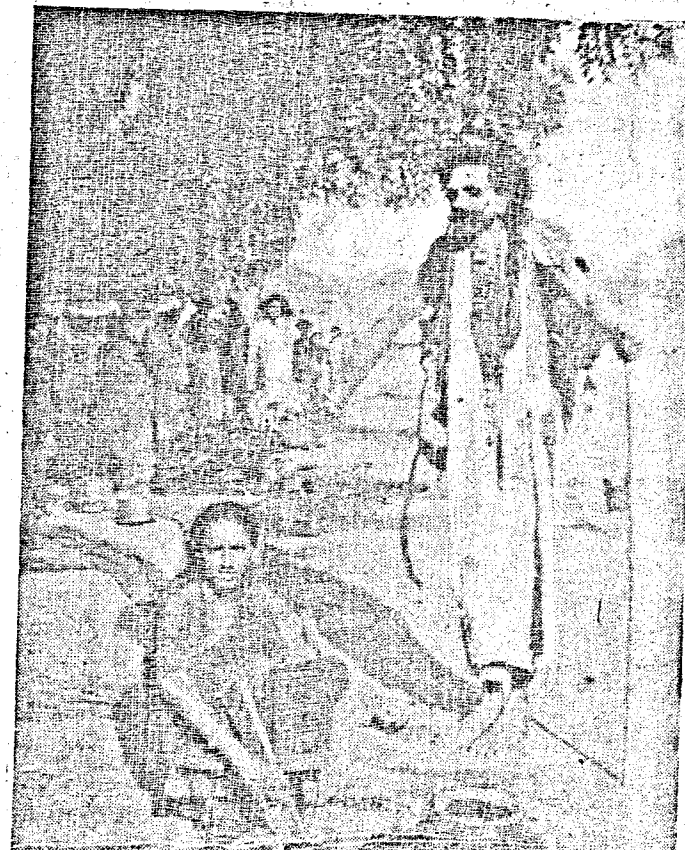
Allegiance to Guru.—The *Kambalathars* owe allegiance to a common guru, living at Kancheepuram, who has been periodically visiting the villages where these people live in numbers. Generally, it appears, he comes once in three years. On each such occasion, cases which have not been or could not be disposed of by the "elders", are referred to him and his decision accepted as final and irrevocable. In the ordinary course, each householder had to pay the Guru a sum of rupees eight as his offering or *kanikkai*. Apart from this, the fines imposed on delinquents in cases decided by him, also go to the Guru and these amount to a very large sum annually.

Reclaiming these People

Possibly because of an awakening among these people to the way in which they were financially affected and also as a result of a keen interest taken by the President of the Gramasangham, who is also the village munsif, the *Kambalathars* recently convened a conference of the group leaders and reviewed their position. As a result, they have formed an association under the aegis of the Gramasangham and reached the following decisions as a first step in improving their conditions:—

(i) The age-long practice of beggary as a profession is to be given up altogether. To enable all to do this and settle down in other walks of life they have decided that

A Kambalathar in the guise of a sadhu blesses a housewife



five years' time should be given for the purpose, at the end of which no one in the community should practice beggary as a profession.

(ii) Secondly, they have decided that none of their cases should be taken to their Gurn for decision. All cases are to be decided, as hitherto, by the communal elders. If any case is not satisfactorily decided in this manner, they should be got decided by the village leaders of other communities, free of any remuneration.

(iii) So far as the Gurn is concerned, they will continue to recognise him as their spiritual head; but will pay him only a nominal sum as *kanikkai* and nothing more on any account.

(iv) Fines will continue to be levied by the group leaders at their meetings. But out of the proceeds, only two-thirds should be appropriated by them for themselves; one-third to be set apart for their educational and social uplift.

Results Achieved

So far, one tangible benefit derived as a result of these measures is that a sum of Rs. 250 has been saved through this association for their common benefit. Young boys have been persuaded to go to school and at Samudram, ten such boys are put to school. They are also being encouraged to train themselves for enacting village dramas, as they already have a grounding in the art, being accustomed to put on "disguises" in daytime.

At Samudram, each of the small houses contain more than five or six families huddled together; the Sangham proposes to put up better houses for these people by such joint effort. It is hoped to accomplish this in about three years. For the present, it is hoped to put up a common hall, where the womenfolk could be taught spinning. These are just initial ideas and their implementation is, as yet, in the embryonic stage. Ultimately, they look forward to lands being assigned to them, so that they can permanently settle down as agriculturists and effectively give up begging as a profession.

A new generation of literate youngsters is coming up

In the Service of the Down-Trodden

By Sri B. PARAMESWARAN, Minister for Rural Development

The first and foremost disability under which the Harijans have been labouring for ages is "untouchability." This cruel custom, established several centuries ago, has entrenched itself behind bigotry and orthodoxy and has obtained such a firm footing that in spite of the most strenuous efforts for a number of years past, it has been found difficult to dislodge it. It has reduced the Harijans to the lowest depths of ignorance and poverty, and it prevents them from uplifting themselves and rising to their proper and legitimate stature in the body politic. Under the heavy and deadening weight of this custom, they had to remain oppressed, despised and ill-treated.

A number of religious leaders and reformers from Lord Buddha of ancient times, to Sri Ramakrishna Paramahansa of recent revered memory, have condemned the practice of untouchability in no uncertain terms and have endeavoured to root it out, though only with varying degrees of temporary, but not permanent, success. In modern times, Christian missionaries and some social service institutions have rendered valuable service to uplift these down-trodden classes. Indian leaders of thought and public opinion began to feel increasingly that the deplorable condition of a large section of the Hindu society was a serious and intolerable evil of great magnitude, and they urged the Government to remedy it as quickly as possible.

Protecting the Depressed Classes

In 1916, the Hon'ble Mr. Dadabhai moved a resolution to that effect in the Imperial Legislative Council and it was accepted by the Government of India, who commended it to the several Provincial Governments for implementation. It is to the credit of this State that it was the earliest to take steps to implement that resolution. The Government of Madras appointed in 1919 Sir George Paddison, a senior member of the Indian Civil Service, to deal with matters necessary to improve their lot. After he had completed the necessary survey and investigations, they appointed him in 1920 as the Protector of the Depressed Classes.

Since then, the Government of Madras have been actively endeavouring to improve the lot of the Harijans. The activities of this Department have steadily grown in volume and variety and include besides the opening and running of special schools for the education of the children, the provision of scholarships and other educational facilities, granting house-sites, sinking wells and reserving and assigning cultivable lands.

Gandhiji's Epic Fast

But the Government under the Britisher endeavoured to deal only with the material, political and educational aspects of the complex problem of the Harijans. It was left to Mahatma Gandhi, the Father of the Nation, to tackle the socio-religious aspect of untouchability, which is really the crux of the problem. To Gandhiji the cause of the Harijans was as dear as his life itself. He detested the

evil practice from his youth and considered its abolition as an important part of his mission in life and laboured for it by example as well as by precept from the beginning of his public career, as no other leader ever did.

Under his guidance and leadership, the Harijan problems and particularly untouchability, received special consideration at the hands of the Congress, the foremost democratic political party in the country. He gave a sudden and significant turn to this problem by his epic fast in 1932, as a result of which there was a general awakening followed by a zeal for the emancipation of Harijans not only among the Hindu public, but also in the Government circles.

It was then that he made a public promise to the Depressed Classes, whom he then lovingly called 'Harijans,' that untouchability and all the evils and disabilities attached to it, would be done away with as speedily as possible. He then started the All-India Harijan Sevak Sangh with branches all over the country. By his dynamic propaganda and activities both personally and through his devoted associates, he was able to see his promise of the removal of untouchability, all but wholly fulfilled before his sudden and lamented death.

Temple Entry in Madras

In this State, the question was taken up seriously when the Congress first came into power in 1937. The highest and most sacred privilege of a Hindu is the right of worship in temples. The Harijans had, by reason of their being regarded as untouchables, been kept out of those institutions. It was in 1939, under the inspiring influence of Sri Rajaji, who was then the Premier of this State, that the Temple Entry movement was first started. He surmounted all difficulties and enabled an Act to be passed entitling the Harijans to enter the famous Meenakshi Temple at Madurai and worship the deity on a par with other Hindus.

It was a bold and far-sighted step which led the way to the all-comprehensive Temple Entry Authorization Act of 1947, throwing open all temples to the Harijans for worship. This right of temple entry really guarantees social and religious equality to the Harijans along with the Hindus. This Government also passed the Removal of Civil Disabilities Act, 1938 (Madras Act XXI of 1938), as amended in 1947, which provides for the removal of civil disabilities imposed by social customs and usages on Harijans.

A sum of a crore of rupees was set apart as a separate fund for special ameliorative work among the Harijans and a Committee was appointed to prepare a scheme of utilizing the sum to the best advantage. A special department called the Harijan Welfare Department has been brought into existence from 1st April 1949, to devote its attention mainly to the Harijan work.

Schools and Hostels

Let me now enumerate some of the important ameliorative measures undertaken by this Government. Education

Sales Tax Exemption

The Government have issued a notification exempting from Sales Tax banks and indent and canvassing agents of non-resident dealers. The exemption shall be deemed to have come into effect on the 10th May 1948.

Housing of Harijans

The Government have impressed on the local bodies including the Corporation of Madras their primary responsibility for housing of Harijans and other labourers in their employ. The local bodies have been requested to take early steps to provide houses for their labourers to the extent to which their finances permit. The Government have also undertaken to consider subject to availability of funds and on merits, applications from local bodies for loans and subsidies for such housing schemes.

Panchayat Gift

The Government have accepted with thanks the offer of the Ramanathapuram Panchayat Board to construct a maternity ward in the Headquarters Hospital, Ramanathapuram, at a cost of Rs. 5,000.

Mobile Mass Radiography Set for Madras

The Government have accepted the offer of the Madras Provincial Welfare Fund to donate a mobile Mass Radiography set for use in the State and have also sanctioned the staff and expenditure necessary for the maintenance of the set.

The radiography set will be in the charge of the Director, Tuberculosis Institute and Tuberculosis Clinics in Madras. It will be used in Madras City for an initial period of one year. As a special arrangement, this set will be made available when required, for x-raying the employees of Messrs. Buckingham and Carnatic Mills Ltd., Messrs. Best & Co., and other firms who contributed to the purchase of the apparatus.

Approved Films

The Government have issued a notification to the effect that the exhibition of at least 800 foot of one or more approved films in cinemas having 16 mm. projectors, will be considered to have fulfilled the condition of licence requiring the licensee to exhibit approved films.

is the lever by which one can raise the economic and social conditions of a backward community. The policy of the Government has therefore been to give top priority to the provision of educational facilities. They have all along been endeavouring, as far as possible, to get the Harijan pupils admitted into schools already existing in the locality and to open separate schools for them only in places where, owing to caste prejudices, the existing schools are not easily accessible to them, or in places where there are no such schools. While there were only 500 such labour schools with 300 teachers educating 14,500 pupils in 1924, there were 1,232 schools with 2,661 teachers educating 87,224 pupils in 1949.

With effect from the school year, 1947-48, ten per cent of the seats in all secondary and training schools, Government Arts and Training Colleges and the Law College, have been reserved for Harijans. In the Medical and Engineering Colleges also seats have been reserved for the Harijans. Harijan pupils are exempted from payment of fees in elementary and higher elementary schools, secondary schools and in Arts and professional colleges.

Scholarships, both residential and non-residential, are awarded to the pupils reading in the schools and also to the students taking the College course including post-graduate course. The expenditure on this account has steadily increased from year to year, and in recent years it has grown by leaps and bounds.

Midday meals are provided to the pupils reading in these schools. This scheme was initiated in 1941. It cost the Government 25,000 rupees in 1943-44 for feeding 4,600 children. But in 1948-49 the number of pupils fed rose to 65,732 and the expenditure to as much as 11,66,903 rupees. The Government have been spending large amounts on hostels maintained for Harijan boys and girls. During 1949-50 they spent on this account as much as 11,71,320 rupees.

Health and Housing

The other essential needs of the Harijans, namely, the provision of house-sites, water-supply, health and sanitation have also been receiving attention. While

before the year 1949 it was necessary for the Harijans to pay half the cost of the house-sites granted to them, the Government in that year liberalised the concession by ordering the grant of house-sites free of cost to all Harijans, except in cases where they can afford to pay.

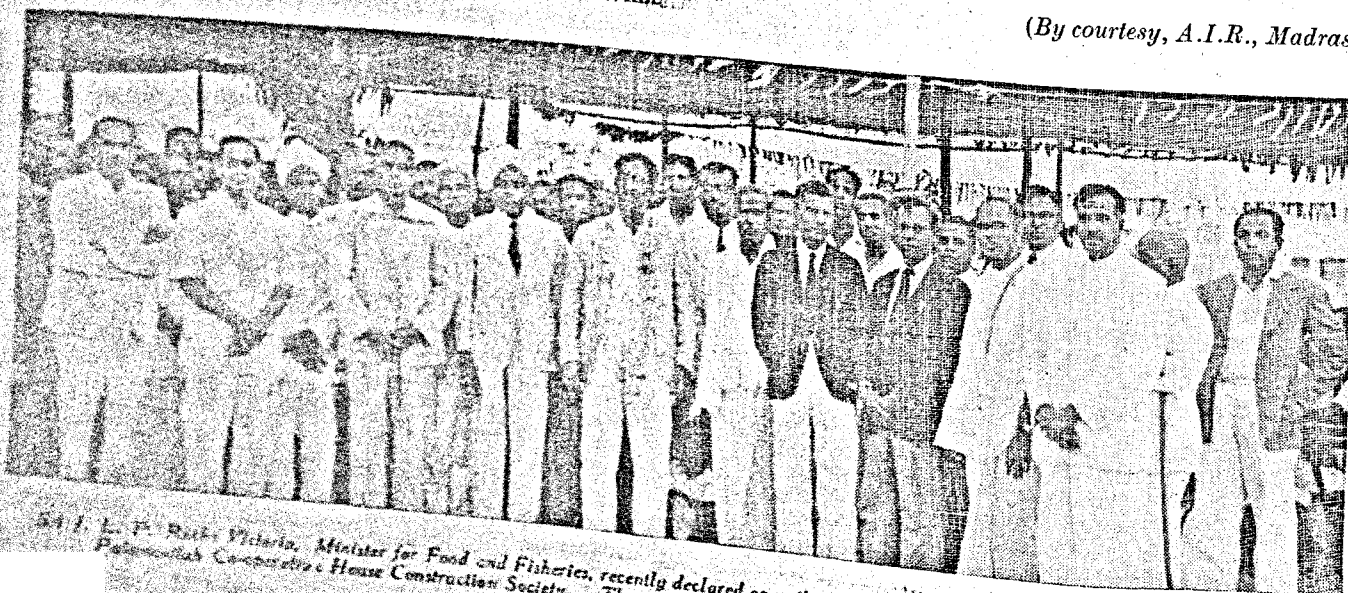
I have given you an idea as to how the expenditure incurred by this Government on several schemes launched by them for the welfare of the Harijans has been progressively mounting. From Rs. 8.7 lakhs spent in 1924-25, the expenditure steadily rose to 24.28 lakhs of rupees in 1945-46. After the Congress Government came into power, a further impetus has been given to the work. They spent 35.30 lakhs of rupees in 1946-47, 41.58 lakhs of rupees in 1947-48, 43.47 lakhs of rupees in 1948-49 and 71.29 lakhs of rupees in 1949-50. For the current year, provision has been made in the Budget for an expenditure of 92.67 lakhs of rupees. The Government are thus endeavouring to do their very best and incurring as large an expenditure as possible on the welfare of the Harijans.

Educating the Public

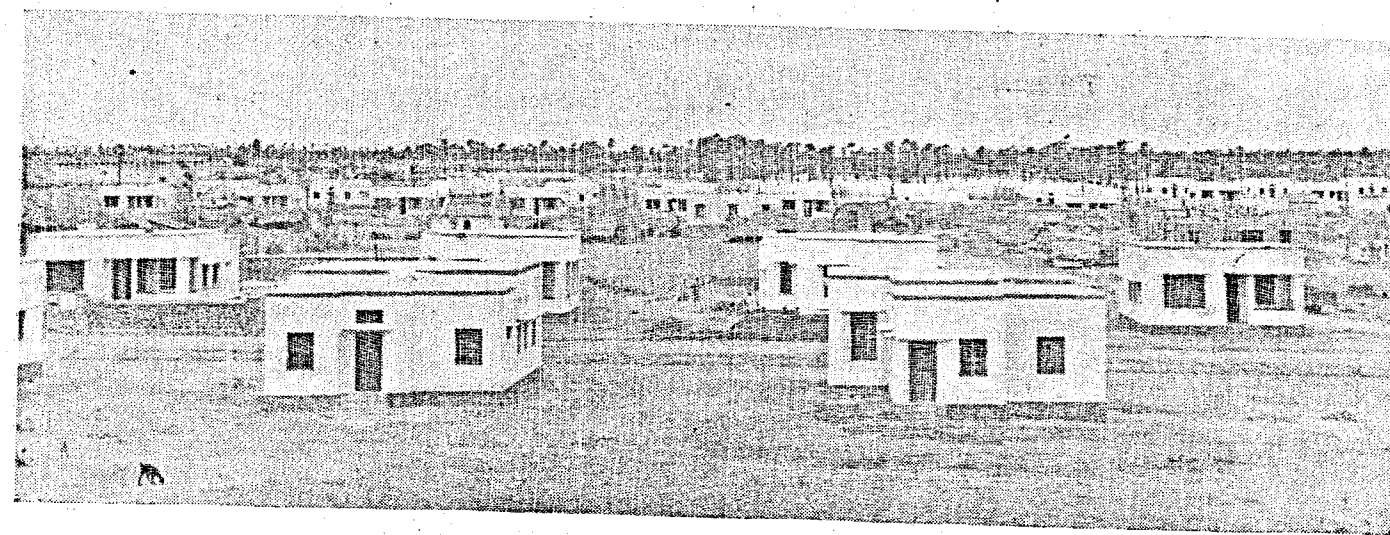
But the problem, because of its socio-religious and political aspects, cannot be solved by the resources of the State alone. While the State is doing and will continue to do all that lies within its power, the public and non-official organisations must come to the aid of the Government in eradicating this age-long evil. The Government are organising 'Harijan Day' celebrations on the 30th of every month for the purpose of educating the public and rousing their interest for the removal of untouchability and other disabilities. It is my fervent hope that the public will take part in the celebrations in large numbers and exhibit their zeal and enthusiasm in the cause of the Harijans.

We must, however, take care to adhere to and pursue the same peaceful and constructive approach as was laid down by Mahatma Gandhi and through which we have achieved such remarkable results.

(By courtesy, A.I.R., Madras.)



Minister for Food and Fisheries, recently declared open the 42-acre Perumalpuram Colony, established by the Palamcottah Co-operative House Construction Society. The site opposite the Palamcottah Railway Station, cost Rs. 38,200



The Perumalpuram Colony. Out of the 134 house-sites, 103 houses have been completed. About 19 acres have been set apart for common amenities such as roads, streets, pond, playground, market and school.

Co-operation in Tamil Nad

Tamil Nad has a record of progress in co-operative activities which is not only impressive but compares favourably with that attained in any part of the State, nay, in the whole of India. As in most other progressive movements, it is in the vanguard of the co-operative movement as well. It is a matter for pride that co-operators have shown a remarkable tendency to adapt themselves to new conditions and changing environments, and have embarked on new lines of business and undertaken fresh responsibilities entrusted to them by the State. Co-operative organizations have been harnessed with success to the solution of various problems in the sphere of food procurement and distribution, yarn supply to weavers, relieving housing shortage, rehabilitation of ex-servicemen, resettlement of ex-toddy tappers, etc., etc.

Commendable progress has been made in the sphere of agricultural credit as well. The 13 Central Banks in Tamil Nad have issued loans to the agriculturists to the tune of Rs. 235.07 lakhs during 1948-49. The rural credit societies cover 62.84 per cent of the villages and 15.42 per cent of the population. They have a total membership of 5.36 lakhs with a paid-up share capital of Rs. 66.48 lakhs and undertook multi-purpose activities to the tune of Rs. 102.19 lakhs benefiting 2.5 lakhs of members. Sixty-two Land Mortgage Banks have issued loans to the extent of Rs. 43.54 lakhs during 1948-49.

In the field of consumers' co-operation, the first co-operative wholesale stores in the Madras State was started in Madurai-Ramanathapuram. District Central Stores and primary stores have distinguished themselves in schemes of food procurement and distribution. They have procured foodgrains to the extent of Rs. 1,600.57 lakhs and distributed foodgrains and other goods to the value of Rs. 1,585.75 lakhs during the year 1948-49.

Co-operatives have come to the aid of the weavers and 0.61 lakh of looms have been brought into Weavers' Co-operative Societies, which produced Rs. 2.63 crores worth of cloth. The activities of House Building Societies have vastly increased and Government loans to the extent of Rs. 60.71 lakhs were issued to house building societies of various types during the financial year 1949-50. Ex-servicemen societies are working with great success.

Co-operatives have also played a notable part in the rehabilitation of ex-tappers who have been provided with employment through co-operative societies chiefly for jaggery manufacture. There are now 1,230 palm jaggery societies and these have produced Rs. 65.41 lakhs worth of jaggery during the year. A scheme is in force for the development of palm gur industry through the co-operatives and training in improved production is given through the societies. Co-operatives in Tamil Nad may well be proud of these achievements, which are by no means small, and our thanks are due to the selfless band of workers in Tamil Nad who have toiled to make the movement what it is to-day.

—P. S. KUMARASWAMI RAJA,
Chief Minister.

The Monuments of Tamil Nad

By Sri K. R. VIJAYARAGHAVAN, Curator, Fort Museum, Fort St. George, Madras

The history of architecture in India is not the classification of buildings in archaeological watertight compartments according to academic ideas of style, but a history of natural life and thought. To understand Art, we must understand the comprehensions and intellectual attainments of the contemporary people in a given region. All Indian art has been produced by professional craftsmen following hereditary and pupillary traditions. Changes in form distinguishing the art of one age from that of another reflect the natural tendencies of current thought.

In Madras State fortunately the learned tradition of temple building has been preserved to the present day. The Visvakarma community of craftsmen retain the hereditary tradition. These people still possess and make use of Sanskrit manuscripts of Silpa Sastras or vernacular equivalents.

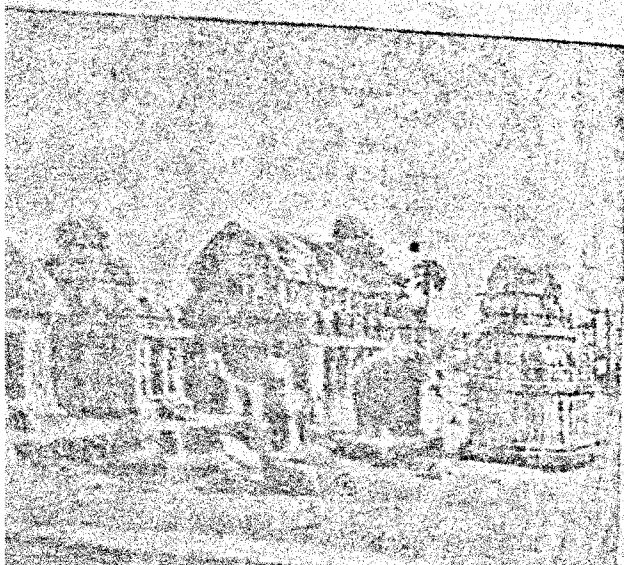
Short descriptive notes on some of the finest specimens of South Indian architecture, beginning from the Pallavas of Kanchi, are given in this article. These, it is hoped, will enable the lay visitor to understand the salient features together with some of the aspects of South Indian architecture and also infuse in him a greater interest and curiosity to study them in greater detail.

MAMALLAPURAM (Seven Pagodas)

Mamallapuram (or Mahabalipuram), commonly known as the Seven Pagodas, is one of the most remarkable places in India, ranking in interest with Ajanta, Ellora, Elephanta. It lies on the coast to the south of Madras at a distance of about 50 miles. The place was founded and enlarged by Pallava kings of Kanchi c. 600-900 A.D. particularly under Mahendravarman and Narasimhavarman (Mamalla).

The first foundations of temple architecture in South India were laid by the Pallavas and the rock-cut mantapas and temples or rathas of Mamallapuram are the glorious witnesses of the lithic dexterity of the Pallavas. These

The five Pandava Rathas at Mahabalipuram



antiquities may be divided into three groups: (1) The five Rathas—monolithic temples to the south of the village belonging to the earliest period; (2) the cave temples, monolithic figures, carvings and sculptures with some marvellous bas-reliefs, west of the village—of the 6th and 7th centuries; and (3) the more modern Vishnu and Siva temples, the latter being washed by the sea.

Unfinished Rathas

The rathas were probably intended to serve the purpose of temples, but bear marks of having been left in an unfinished state. They are named after the Pancha Pandavas and Draupadi. The square rathas are after the Buddhist Viharas or monasteries and are the originals from which all the vimanas of South Indian temples were later developed. The oblong ones were Chaityas or Assembly Halls of the Buddhists and became the type for the modern gopurams or gateways, which are frequently the more important parts of temples than vimanas themselves.

The Mahishasura Mantapa, the finest of all the cave temples, contains three inner shrines, the central one approached by a porch with lion pillars. The central shrine consists of bas-reliefs of Siva, Parvathi and Subramanya and on the two side walls are the remarkable bas-reliefs of Ananthasayanam and Durga killing Mahishasura.

Story in Bas-Relief

The sculptures on the back wall of Krishna Mantapa represent Krishna supporting the Govardhana in order to shelter the cowherds. Several interesting particulars regarding ancient Hindus may be gathered here. A few yards from the Krishna Mantapa will be found the sculptures in bas-relief, on the faces of two huge rocks, the story of the intense penance of Arjuna. In this group of sculptures the principal figure is Arjuna, standing on the great toe of the left foot. Both the rocks are covered with a great crowd of celestials; Gods and sages, Gandharvas and animals, all hastening to watch the penance of Arjuna. The right half is distinguished by a magnificent group of elephants realistically treated.

The structural Shore Temple (9th century A.D.) has attracted the particular admiration of visitors because of its lonely and unique position on the seashore where it is within reach of the spray from the surf. It is in the purest and earliest Dravidian style, the vimana forming the central and principal mass, while the gopuram or gateway is comparatively insignificant. With the exception of Tanjore, this is the finest and most important vimana in South India.

KANCHEEPURAM

Kancheepuram is a city where tradition would lead us to expect more of antiquity than in almost any other place in South India. From the Pallavas the place passed on to the Cholas, who in their turn had to surrender to the

Vijayanagar kings. In the course of these changes, the place was literally filled up with temples of all styles and periods.

By far the most interesting of the Kancheepuram temples, from the archaeological point of view, is the Kailasanatha temple, standing on the cultivated fields to the west of the town. From its very style it can at once be placed as contemporaneous with Mamallapuram. It contains several inscriptions also which have established the fact that it was created by the Pallava King Rajasimha. It is a Siva temple originally styled Rajasimheswara, consisting of a vimana and separate mantapam in a court surrounded by small cells. At a later date, the mantapam has been joined to the vimana by an ardhmantapam, roofed on six pillars with the entrance on the southern side.

A second example of this Early Dravidian (Pallava) style is presented in the Vaikuntaperumal temple to the east of the city. This is the first temple in the whole of Tamil Nad, where all the different parts of the temple are being united into a single structure (700 A.D.). It stands in a court to which is attached an entrance hall or portico, more modern than the rest, and roofed on twenty-four pillars. A pillared veranda runs round the inside of the court, the walls of which are covered with sculptures. The vimana, in the centre of the west portion of the court, measures about fifty feet over the walls with a mantapam in front, having two rows of four pillars, each across the floor.

Ekambaranatha Temple

The more modern great Siva temple of Ekambaranatha possesses good gopurams, though no commanding vimana. The largest gopuram is to the south of the outer enclosure and has ten storeys and a large top. It was built by Krishnadeva Raya (1509-1503). It too has a big hall, several large and fine mantapams, large tank, with flights of stone steps and all the requisites of a first-class Dravidian temple. No two gopurams are opposite each other nor two walls parallel. All this creates a picturesque effect seldom surpassed in these temples.

In Little Kancheepuram is the Vishnu temple of Varadarajaswami. The principal gopuram of seven storeys is plain in style and not plastered over like the rest. Within to the left is a hall of pillars, known as Kalyanamantapam, with figures riding on horses. Inscriptions assignable to the beginning of the 13th century reveal that the temple existed even then and presumably was earlier still.

TANJORE

The visitor to Tanjore is greeted from afar by two great vimanas, not unlike each other in dimensions and outline, of which on closer observation one is found to belong to the Great Temple of Raja Raja and the other to a part of the Palace, the symbols of religious and political significance of the Capital. This royal city of the Cholas, Nayaks and the Mahrattas, is set amidst the vast deltaic tract of the Cauvery, known as the Granary of South India.

Rajarajeswaram, as this temple was named by its founder, fills a large portion of the southern half of the smaller fort, encircled by a moat, both on the east and the west. The temple is entered by an imposing gateway

on the east. This leads to the outer court, used as an arsenal for sometime by the French and the English. A second and more handsome gopuram further on leads to the main court in which the temple is built.

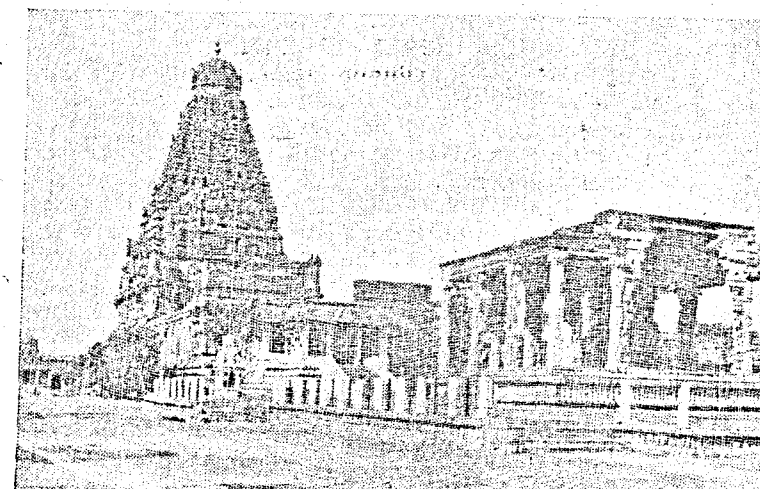
The maturity of the Chola period (900-1150 A.D.) is seen in the colossal temple at Tanjore, a mammoth work both in ambition and in detail, resulting in a landmark. The main structure is 180 feet long and rises to a height of 190 feet in a massive pyramidal tower. It is built on a well-defined and stately plan which was persevered with till its completion, an unusual feature in Dravidian temples. The vimana is a touchstone of Indian Architecture. The architectural reputation of the Cholas is well established by this temple and its double at Gangaikonda Cholapuram in Tiruchirappalli District, and with this effort the dynasty seems to have remained content.

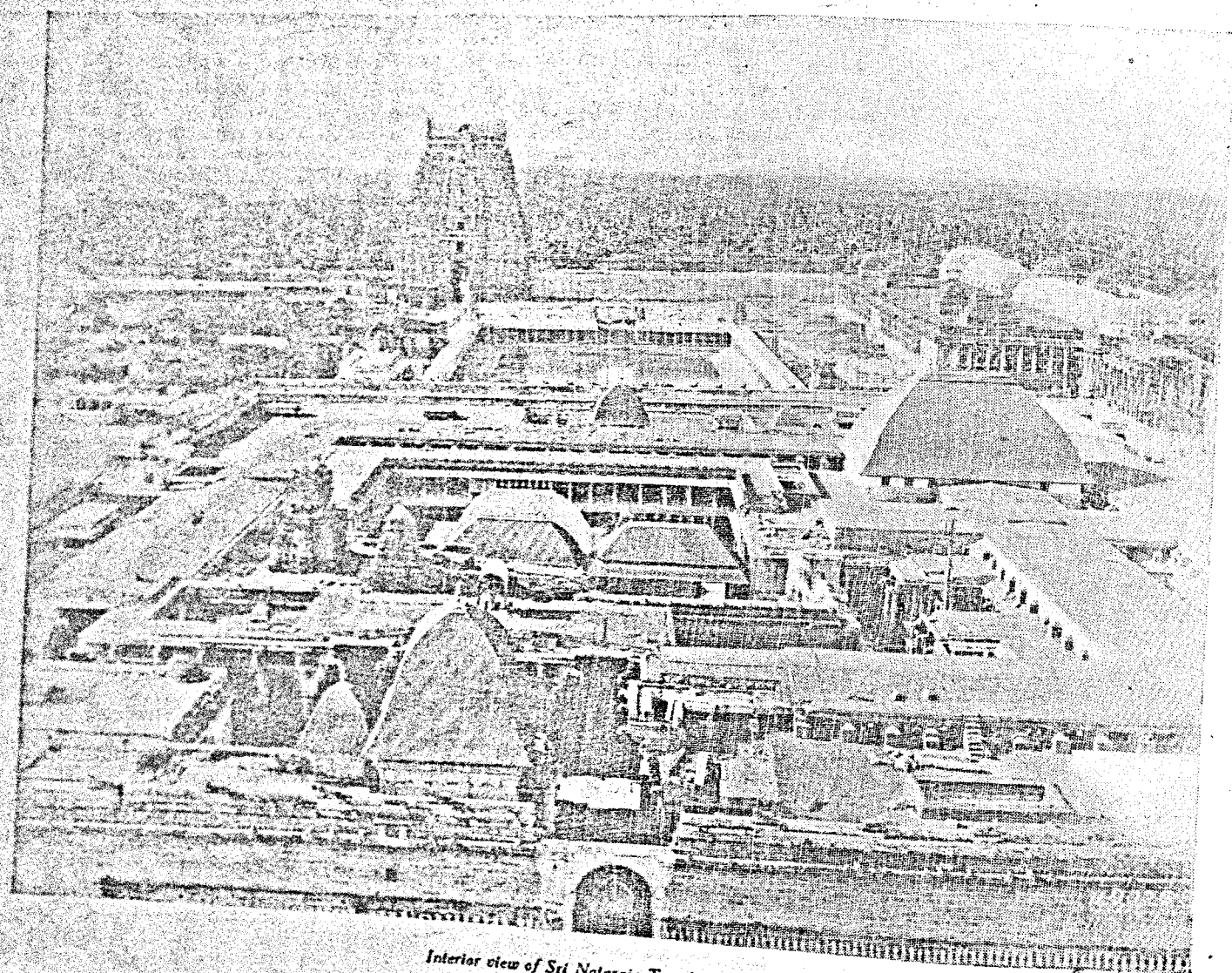
Of the smaller structures inside the temple court, the shrine of Subramanya consists of a tower 55 feet high raised on a base of 45 square feet covered with delicately carved figures, pillars and pilasters and carried on along a corridor 50 feet long, communicating with another mantapam, to the east. This shrine has been pronounced to be "as exquisite a piece of decorative architecture as is to be found in the south and a perfect gem of carved stone work, the tooling of the stone in the most exquisitely delicate and elaborate patterns, remaining clear and sharp as the day it left the sculptor's hands."

The Great Nandi within an elaborately worked Nayak Mantapam is massive and striking, but not particularly well carved. This is said to be the second biggest, the first being the one in Lepakshi Temple, Anantapur District.

The Chola fresco paintings within the circumambulatory corridor is of great interest. They are the first yet discovered Chola specimens. Since the discovery of Pallava paintings in Kailasanatha Temple in Kancheepuram, the Pallavas were deemed to have exclusively the palm for mural paintings in the Tamil country and the Cholas may now be believed to divide the honours equally with the Pallavas not only in South Indian architecture and sculpture but also in South Indian paintings in the seductive Ajanta style. The Department of Archaeology has deputed a

The Great Temple of Brahadeswara in Tanjore





Interior view of Sri Nataraja Temple from the south, in Chidambaram

special officer to preserve scientifically the paintings from further decay.

CHIDAMBARAM

The stimulus given by the Cholas in the direction of temple building was not fully maintained by the Pandyas. The only tendency that newly developed was the gopuram having huge rimanas over the gateway, instead of over the window. Thus the monumental entrance-gates to the temples came into being. Gopurams arose on the four cardinal directions attracting the people's attention from afar to the glory of the temples. The gopurams invite, as it were, the devotees from afar to fall at the feet of the Lord, who will cleanse them of their sins and give them eternal bliss.

The Siva Temple at Chidambaram in South Arcot has the reputation of being one of the most venerated and ancient temples in South India. As an architectural edifice it is a wonderful structure, for it stands in the midst

of an alluvial plain between two rivers where there is no building stone within 40 miles; and yet the outer walls are faced with dressed granite, the whole of the great area enclosed by the inner walls is paved with stone, the temple contains a hall which stands on more than 1,000 monolithic pillars, into the gateways are built blocks of stone 30 feet high and more than three feet square.

Enlarged at Different Periods

The inner temple was built in the 10th and 11th centuries, the fact being supported by an inscription there, whilst the eastern gopuram was built by Sundara Pandya in C. 1250 A.D. The Parvati Temple on the north of the tank was added later on, most probably in the 14th and 15th centuries and to that age the great gopurams and the second enclosure also belong. The northern gopuram is ascribed to Krishnadeva Raya C. 1520 A.D. The hall of 100 columns was erected between 1595 and 1685.

Although this temple has been enlarged at different ages, and grown by accident rather than design, like that of Srirangam, it avoids the great defect of the latter temple; for though it also has no tall central object to give dignity to the whole from outside, internally the centre of its great court is occupied by a tank, round which the various objects are grouped, without at all interfering with one another. The temple itself is one important object: to the east of it is the Parvati Temple, to the north is another, forming thereby a pleasing pendant to the 1,000 columned chauari on the south.

SRIRANGAM

Situated almost in the centre of the island formed by the forking of the Cauvery, the town is chiefly famous for the great temple dedicated to Lord Ranganatha. The temple and the town are indeed co-extensive, the greater portion of the houses remaining inside the fort walls of the temple—a marvellous example of early town-planning.

The temple is certainly the largest and one of the finest and most popular in India, consisting of seven enclosures, one within the other—the periphery of the seventh measuring more than one thousand yards. The fourth enclosure is the most magnificent of all, enclosing the hall of thousand columns. They are each of a single block of granite and all carved more or less elaborately. The Seshagiri Mantapam is the most exquisitely carved hall in the temple. It is supported by pillars with rearing horses and other figures in front, similar to those in the Madhurai Temple and belongs to the 17th century. The gopuram on the east of this court is about 150 feet in height and is one of the finest gopurams of the temple. The temple possesses many jewels, some of which are rare specimens of goldsmith's work.

Representative Work

This is the most representative illustration of the way in which many South Indian temples have gradually grown up around a small central shrine. The various stages of circumvallation represent successive additions in the wealth and popularity of the shrine, and there is a corresponding growth in the size and ornamentation of the outer buildings as compared with those within.

The inscriptions on the walls go back to the first half of the tenth century, to the reign of the Chola King Maduraikonda Ko Parakesarivarman, alias Parantaka I, but the greater portion of the temple can hardly have been constructed as early as this. Other inscriptions here relate to Chola, Pandya, Hoysala and Vijayanagar dynasties. All these only go to prove that the temple was patronised by all the dynasties, who added to its wealth and growth according to their taste and ability.

About half a mile to the east is another remarkable temple, dedicated to Siva, known as Jambukeswara, the counterpart of the Vishnu temple. As an architectural object, this is by far better than the Vishnu temple and being all of one design, it was probably begun and completed at the same time. There are five enclosures to the temple.

Such examples of building temples of Vishnu and Siva in one and the same place are not wanting in South India.

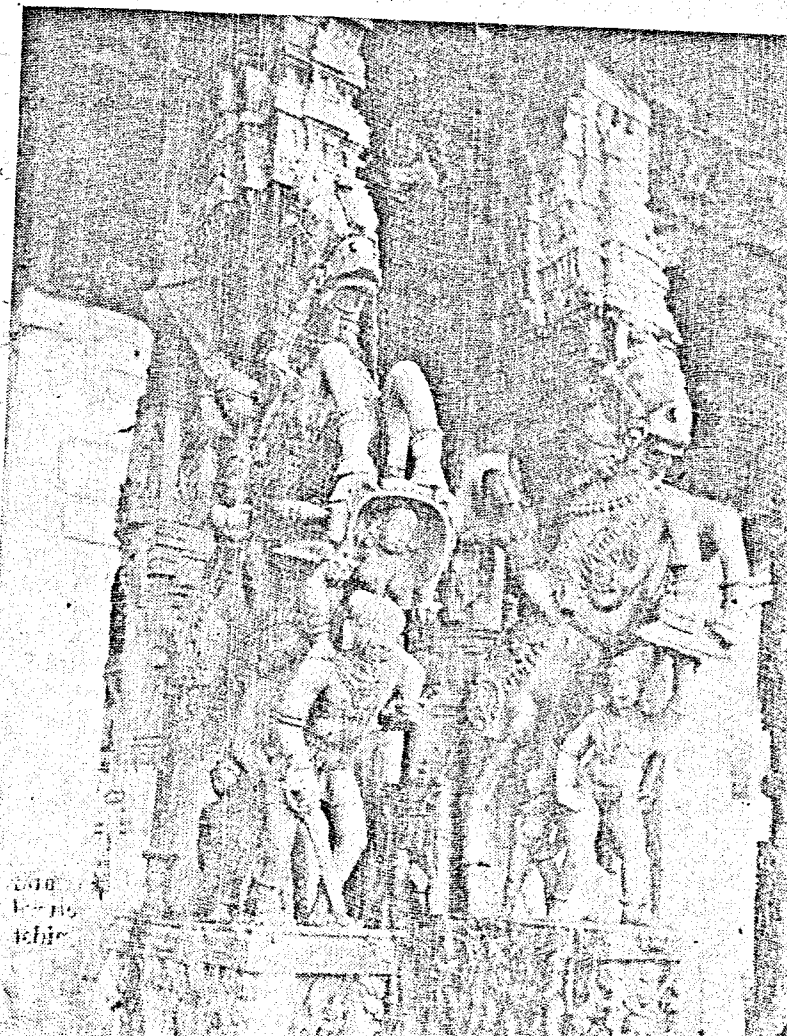
This brings out clearly the amity that existed between these two sects during those days, which was unfortunately marred in later years.

MADHURAI

The earliest mention of the place occurs in the times of the ancient Pandyas, some centuries before the Christian era, and it reached its prestige and pre-eminence in the middle of the 17th century under the Naik Kings, who contributed so much to its architectural adornment.

The Meenakshi Temple, Madhurai, is the largest built during the Naik period (1600). In Madhurai, Srirangam and Chidambaram, the temples were not only a spiritual sanctuary and theological seminary but constituted an integral part of the town-planning system and lent charming skyline to the town. Appropriately enough, the temple at Madhurai stands in the very heart of the city. The lofty towers, crowning the entrance to the temple, are the first to greet the eye as the train approaches Madhurai. They are all unusually tall and alike and serve as landmarks for a considerable distance. The highest one is on the southern side. The lower storey in all these gopurams is of stone, and the upper of brick entirely concealed by stucco figures representing the best known deities of the Hindu pantheon.

Warriors carved on pillars of the Elephant Mantapa, Ranganatha Temple, Srirangam



CULTURE

The middle of the sixteenth century saw the foundation of the Naik dynasty with Madhurai as their capital and the Thousand Pillared Mantapam was built by Arya Naik Mudali, the general and minister of Viswanatha, the first ruler of that line.

Tirumalai Naik's Palace

The other important buildings of Madhurai are all associated with the name of Tirumalai Naik, who reigned from 1624 to 1659. The chief of these is his palace, the most perfect relic of secular architecture in Madras State. The main structure consists of two parts, an open court and a lofty hall. The former is surrounded on all sides by arcades of very great beauty. The pillars which support the arches are of stone of about 40 feet height. The whole ornamentation is worked out in exquisitely fine stucco and marble plaster. Of this superb palace only a single block remains and is in occupation of Government offices.

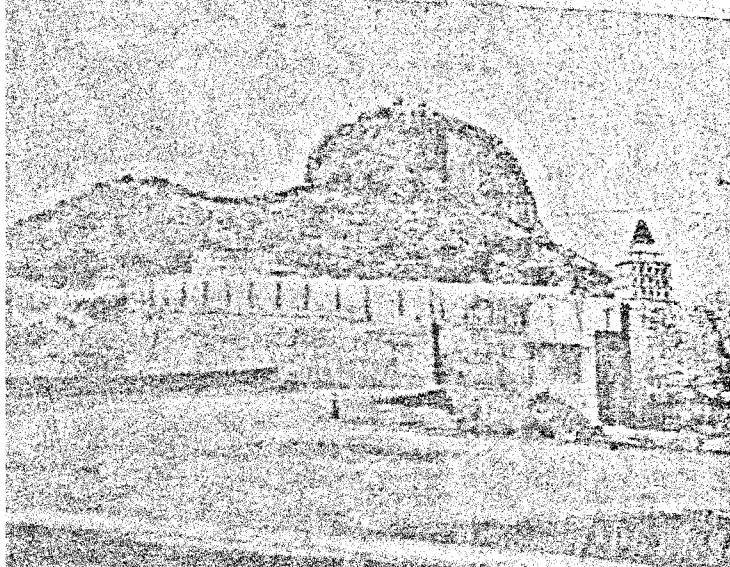
The work of destruction was begun by Chokkanatha (1663-1682), a grandson of Tirumalai. He preferred Tiruchirappalli to Madurai and so commenced to transfer the royal residence to his new capital.

RAMESWARAM

Famous by reason of its association with that best loved and greatest of Indian epics, the Ramayana, the sacred island of Rameswaram has for countless centuries been a favourite place of pilgrimage with Hindus of all ages, castes and sects. It contains one of the most venerated Hindu shrines in India, which was founded, according to tradition, by Rama himself.

Situated on a slightly rising dune ground in the northern part of the island, the sandstone temple of Ramanathaswamy has been described as peculiarly illustrative of the best and worst in Dravidian architecture, a style which may be said particularly to confine itself to Madras State. Writing on this famous shrine, Fergusson expresses the opinion that no other monument exhibits the same amount of patient industry, and that in none has the labour been so completely thrown away for want of a proper

Refugee Hall, with Kaigona Mahal and the entrance gateway of the citadel at Gingee



design, appropriate to its display. But for the lay on-looker nothing of this impression of an expert is perceptible.

Glory of the Corridors

Like that at Tanjore, this temple has also been finished on a settled plan and undeviatingly carried out. Externally the temple is enclosed by a wall 20 feet in height and possessing four gopurams, one on each face, which have this peculiarity that they alone are built wholly of stone from the base to the summit. The glory however of this temple resides in its corridors. These extend to nearly 4,000 feet in length. The breadth varies from 17 feet to 21 and their height is about 30 feet. The pillars here are richer and more elaborate in design than those at the Parvati porch at Chidambaram and are certainly more modern in date, being assigned to Muthukumara Vijaya Ragunatha Sethupathy, who commenced these in 1739. The granite pillars are carved out of a single block of stone. The manner in which light is admitted to this and other parts of the sanctuary is unique in its way and calls for special attention.

To the right and left of the inner east entrance are small shrines to Ganapathi and Subramania. These interesting side chapels are of undoubted antiquity. Surmounting each is a small gopuram minutely and beautifully carved. Set well back towards the interior of the edifice is the tall east gopuram.

It is quite possible that a temple existed here from time immemorial. But the existing central shrine belongs to the 15th or 16th century. The temple and all the enclosing courts owe their existence and development to the Sethupathis during the last three centuries. Recently, the entire temple was renovated in granite by the Nagarathar Community, replacing the friable sandstone structure.

GINGEE

GINGEE

Gingee Kottai is familiar to the Tamils and Andhras of this State by means of a popular ballad still sung by wandering minstrels, which has for its subject the adventures and fate of the genius loci Raja Desing. According to the ballad, Raja Tej Singh or Desing, born in 1693, was an independent ruler of Gingee. He ruled Gingee for barely ten months and was fatally defeated by the jealous Nawab of the Carnatic, Saadat-ulla-khan, in 1814, in his 22nd year.

Gingee was the stronghold of the Vijayanagar dynasty, at the height of its prosperity at the beginning of the sixteenth century till finally overthrown by the allied Muhammiadan Sultans of Deccan in 1665. In 1677 the Fort fell into the hands of Sivaji, the famous Mahratta ruler, and remained in Mahratta hands for over twenty years. In 1690, the armies of the Delhi Emperor Aurangzeb, who was jealous of the growing strength of the Mahrattas, laid siege to the Fort and captured it after a prolonged campaign for eight years, i.e., in 1698. In 1750 the French took hold of the Fort and for 11 years the garrison was in their hands. It changed hands to the English in 1761 and finally in 1780 Hyder Ali captured it. It played no part of importance in the subsequent campaigns.

(Continued on page 39)

LABOUR

Wages for Tobacco Workers

The Government have issued a draft notification for the information of the public, fixing the minimum rates of wages payable to employees of any tobacco (including beedi) manufactory.

The draft will be taken into consideration by Government on or after the 10th October 1950 and any suggestion or objection received from public with regard to the fixation of minimum wages, will be duly considered. Objections and suggestions should be addressed to the Secretary to the Government of Madras in the Development Department through the Commissioner of Labour, Madras.

The proposed minimum wages are as follows:—

<i>Class of work.</i>	<i>Minimum rate of wages.</i>
	<i>RS. A. P.</i>
i. For rolling 1,000 beedis	1 4 0
ii. For rolling 1,000 cigars	1 12 0
iii. (a) for converting one viss of tobacco into snuff	0 13 0
(b) for cutting one viss tobacco ..	0 0 9
(c) for roasting one viss tobacco.	0 4 0
(d) for stripping one viss tobacco.	0 2 0
iv. In tobacco curing industry—	
(a) a minimum time rate at ..	1 4 0
	a day
(b) a minimum piece rate at annas 2½ per lb. of stems stripped.	

Cost of living allowance will be paid at the following rates.—

Index No. . .	Up to	300	325	350	375
	300	to	to	to	to
		325	350	375	400
Allowance for rupee of earnings.	Nil.	1 anna	2 annas	3 annas	4 annas

Grievances of Engineering Workers

The Industrial Tribunal constituted to adjudicate on the grievances of the Engineering and Foundry workers in this State has passed the following award in respect of eight Engineering firms in Madras City, viz :—

Messrs. Essor Engineering Works, Messrs. Swami Foundry, Messrs. Standard Engineering Works, Messrs. Bombay Engineering Works, Messrs. Gopaul Nayagar & Son alias Basin Foundry, Messrs. Chandra Foundry, Messrs. Lakshmi Engineering Works and Messrs. Saraswathi Foundry.

A provident fund scheme should be instituted in consultation with the workers' representatives if no scheme is introduced at the instance of the Government of India before 1st January 1951. All workers will be given seven festival holidays with full wages and dearness allowance and four festival holidays without wage or allowance. Seven days sick leave with full wages and dearness allowance will be given on medical certificate from the Medical

Officers appointed or specified by the managements, if any,
and if not from any registered medical practitioners.

The claim for bonus at a flat rate of three months' wages for all firms is rejected. But the workers of Lakshmi Engineering Works will however get an additional allowance of 1/24th of the wages for 1948 as bonus for the year 1948 payable on the same terms as the original bonus, within a month of the publication of this award. Their claim for the year 1949 is reserved for future settlement after the accounts for the year are made available. Similarly, the workers of the Bombay Engineering Works will also be entitled to get an additional bonus of 1/12th of the basic wage for the year ended Deepavali 1949 payable within a month of the publication of the award. The claims of the workers of the other firms for bonus is rejected.

The existing rate of dearness allowance is enhanced to 2½ annas a point. As regards payment of wages during the period of involuntary unemployment the Tribunal has recommended that payment should be regulated on the lines of the provisions contained in paragraphs 14 and 15 of the Madras Model Standing Orders. The Tribunal has recommended that any worker with one year's satisfactory continuous service should be declared eligible for confirmation and such worker should not be dismissed without proper enquiry and that every such worker should be allowed the help of his co-worker or union official during enquiry. As regards suspension, dismissal and enquiries the Tribunal has suggested detailed procedure to be adopted by the firms concerned.

The Tribunal has further observed that it is not possible to attempt at a classification of workers unless there is a standardisation of nomenclature of the occupations in the Engineering industry. However, the Tribunal has fixed a minimum wage of Rs. 26 per mensem of 26 days for the lowest category of unskilled labour in the Engineering industry to be adopted by the concerned firms. Nothing in this award shall affect prejudicially the workers of any firm already enjoying better privileges. Rest of the demands relating to privilege leave, accident benefits, house rent allowance, night shift, overtime, dress, hot and cold drinks, educational facilities for children, etc., have been negatived.

War Service Candidates

War service candidates seeking appointment to vacancies in posts under the State Government specially reserved for them were given certain concessions in regard to educational qualifications. Recruitment to reserved vacancies is over and war service candidates seeking appointment to non-reserved vacancies are not given any such concession. The Government have now decided that ex-servicemen who have passed the S.S.L.C. Examination (i.e., who are declared eligible for the college course) should be made eligible for appointment to posts for which the minimum general educational qualification (i.e., a pass in the S.S.L.C. with certain minimum number of marks in the various subjects) is now prescribed.

Mettur Reservoir Fisheries

The Mettur Reservoir is one of the largest reservoirs in India. It has an area of nearly 60 square miles and an average depth of 60 feet. The River Cauvery has been known for its abundance of a variety of good food and game fishes. In 1919 Col. Rivett Carnac caught a *mahseer* weighing 112 lb. in the River Cauvery above the dam. There are also many varieties of carps and cat fishes which are of considerable economic importance. More than sixty kinds of fishes, fresh water varieties of economic importance, have been identified. The reservoir is estimated to produce 17,000 tons of fish. A series of experiments conducted recently have conclusively proved that this figure is not an overestimate.

The construction of the Mettur Dam has affected considerably the migratory habits of the Cauvery fishes. Even now we can see thousands of fish rushing up the stream jumping over obstructions and perishing at the slide gates. Suitable arrangements have however been made to rescue most of these fishes and transport them to the reservoir. The creation of this huge lake also affected considerably the fishery rentals of the river below

the reservoir. The rentals fell down from Rs. 1,24,000 to Rs. 75,000.

Systematic Development

During the last ten years systematic measures have been adopted to develop the fisheries in the reservoir. Scientific conservancy measures by introduction of sanctuaries and prevention of wholesale destruction of fish at Hegankkal and Mettur Dam have been introduced. Catla was introduced in large numbers and is now breeding in prolific strain. Etroplus and Gourami, a very valuable exotic fish from Java, have also been introduced.

Over 90 per cent of our people eat fish. Our fish production is only about 3-4 lb. per capita and is barely one-tenth of the estimated demand of 40 lb. per capita per year. Sea fish which forms the bulk of our fisheries, does not reach the interior in good condition beyond the belt of about 20 miles. The Reservoir therefore provides a very good source of excellent food of the towns in the interior like Salem, Erode, Dharmapuri, Bangalore and Coimbatore. There is considerable demand for fish in

Fishes caught at the Mettur Reservoir indicate a typical day's haul, the landings of one unit



every one of these places. All lake fisheries have to be scientifically exploited after some time to prevent mature fish from depleting the lake of all the available food material and depriving the smaller fish of food.

Pilot Scheme Started

A pilot scheme for exploitation of the Mettur Reservoir started in March. The existing licensees were also allowed to fish as usual. About 20 fishermen are now engaged in the fisheries and 1,000 lb. of fish are landed every day. Some of the fish is cured.

Since the reservoir is an artificial lake formed by damming a mighty river and the bed still contains a number of trees, hills and temples and churches, the conventional methods of exploiting deep waters with seine nets and dragnets could not be followed. After a number of experiments extending over ten years, the following craft and tackle are found to be the best and most economical.

The craft used is the coracle, a basket-like boat, with a bamboo framework and covered by thick hide. They are cheap and cost only about Rs. 60 each. They are so light that they can be carried by fishermen from place to place.

The tackle used are the *uduvalai* and the Rangoon nets.

The *uduvalai* nets are wall nets of hemp parachute silk $1\frac{1}{2}$ to 2' wide and 100 yards long. They are provided with small floats on earthen weights. These are paved during nights and hauled in the morning. All the big fish moving in the bottom strata which exceed the size of the mesh are gilled.

The Rangoon nets are drift nets with floats. They are about 20' x 100' with a mesh of 2" to 2 $\frac{1}{2}$ ". They were originally introduced from Bobberlanka. This effectively fills surface fish. In certain seasons the hook and line are used for catching *Pungasius*, *Macrones*, *Wallago* and *Murrells*.

The rate of growth in this Reservoir has been remarkable, Catla of 40 lb., *Pungasius* 32 lb.

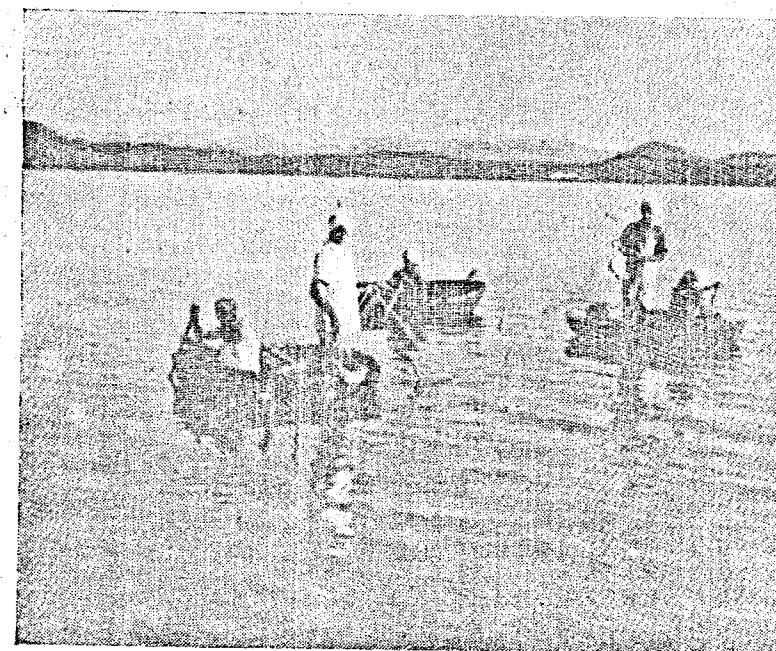
Fish Cured on Extensive Scale

Though a good portion of the fish is sold fresh, some portion is converted under hygienic conditions into cured fish. This is the first time that freshwater fish is cured on such an extensive scale. A portion of the fish immediately landed is degutted and washed thoroughly. Even all traces of blood are completely removed and very good quality of salt is used for curing. The product is dried on specially erected platforms.

A consignment of 750 lb. taken in the propaganda van was sold in towns like Ranipet, Ambur and Avanashi within a few minutes. In the absence of refrigeration and cold storage facilities, curing fish provides a good substitute for people in the interior towns.

Considering the enormous potentialities of the Reservoir, the serious general food shortage in the State and the non-availability of fish to people living in the interior towns, it is possible to exploit the fisheries more intensely.

Exploitation would however have to be done under close supervision to prevent any immature fish being caught. Fortunately, the two principal kinds of tackle



Fishermen hoist up Rangoon nets from their coracles

used, the Rangoon nets and the *uduvalai* themselves provide a scientific measure of conservation as only fish which are above a particular size can be caught.

Besides Mettur, there are many tanks, lakes and reservoirs which have an area of over 1,000 acres. Schemes for scientific exploitation of these waters and supply to surrounding areas could be started at various centres. The Tungabhadra Dam when completed will provide a reservoir nearly double the size of the Mettur Reservoir and should supply in course of time the Ceded Districts. There is also a Research Station in Tungabhadra and suitable steps are being taken to develop the fisheries there.

The day's catch is weighed, assorted and rushed to town in the van



Languages in Schools

By SRI K. MADHAVA MENON, Minister for Education

Education is for the good of our boys and girls; but our boys and girls are not sacrifices to be offered to the patron spirit of a cult called education. Among the good things education offers to our children is knowledge of a language or languages of a higher standard than what any child picks up in human society. Why do we say that this better knowledge of a language is something good we are offering our children. It is only because it opens out to them the knowledge available in the talks and writings of our contemporaries and in the vast store of the writings of those who have gone before us. Shall we then remember that we teach languages not as an end in itself but as a means of acquisition of knowledge which is the heritage of man?

How this knowledge is used by an individual is a different question; to acquire wisdom from knowledge is another part of education. But there can be no wisdom without knowledge; no knowledge better than that possessed by an animal can be acquired without language. It appears to be forgotten sometimes that language is a means to an end and not an end in itself. If that is the end, let us ask ourselves which language or how many languages our children ought to be taught.

Learning the Mother Tongue

First of all, a boy should improve his ability in the understanding and use of his mother-tongue. I do not think it is necessary to labour the point; the proposition has merely to be stated to be accepted. The main consideration is the child himself. The toddler who has learnt to walk on his feet can run best on his feet; he may learn later to balance himself on his hands as an acrobatic act. For a boy, his mother-tongue is the best medium of instruction and in the language which is the medium of instruction he must acquire some proficiency.

"We think largely with the use of words, which are symbols for ideas. Unless we learn to use and to organise words clearly and effectively, our thinking will lack precision and accuracy. Effective use of language is a powerful help to good scientific thinking, and especially to communication in science as well as a necessity in human life."—*Universities Commission*. When I said that a boy must acquire proficiency first in his mother-tongue, I was referring to normal cases. It may happen that he is in a place where no school provides instruction through his mother-tongue. Then the place of his mother-tongue is taken by that language which is the medium of instruction. Thus first of all the mother-tongue or the regional language up to a certain standard must be compulsory.

Secondly, every boy must read English. This is a consequence of the past and is necessitated by the requirements of the present and the immediate future. I need not spend any time justifying compulsory study of English as it is not questioned by anybody excepting

Standard of Proficiency

If these two languages are compulsory, what should be the standard of proficiency. The standard should be that which would enable the students at the end of the school course "to use and to organise words clearly and effectively." This should be the purpose of the compulsory study of the mother-tongue and English. The students should be able to obtain and transmit knowledge. Study of languages may have other purposes. People derive aesthetic pleasure through literature; some may write poetry and give others this pleasure. But this is not for everybody; those that have the talent or the bent of mind should be encouraged and given facilities. Others may desire to study a classical language or any other South Indian language besides the two compulsory languages. There must be room for choice for these also.

Students may therefore choose according to their desires and talents. They can take up specialised study or a more advanced study of their mother-tongue or regional language and this can be called Part II of the mother-tongue or the regional language, or on the other hand they may be content with the compulsory Part I and offer a classical language or any other South Indian language. There are students who are keen on acquiring some knowledge of a classical language like Sanskrit, Arabic or Persian; there are others whose compulsory language in the school available to them may not be their mother-tongue and they may desire to have some instruction in their mother-tongue. All these can take advantage of this choice.

Provision for Hindi

We have not yet finished with the languages the demand for which we have to reckon with. An increasing number of people desire instruction in Hindi. We must therefore give them an opportunity to learn this language also. There is provision for Hindi in all our schools but one disadvantage at present is that people have to choose between Hindi and a classical language. If they take one, they cannot have the other. Students must have a chance to study Hindi; those that do not choose Hindi can take up an additional craft or occupy themselves during the Hindi periods in some other approved activity.

To summarise, the provision for languages in the schools may be as follows:—

- (i) The mother-tongue or regional language, Part I, should be compulsory.
 - (ii) English should be compulsory.
 - (iii) Choice may be allowed between Part II of the mother-tongue or the regional language and any classical or South Indian language.
 - (iv) Choice may also be allowed between Hindi and an additional craft or approved activity.
- Thus it will be seen that a pupil can be content with only two languages, his mother-tongue and English. This

MONTHLY DIGEST OF ECONOMICS AND STATISTICS

Published by the Economic Adviser to the Government of Madras; containing valuable statistical information relating to a number of subjects including Agriculture, Industry, Public Finance, Cost of Living index numbers, Wholesale and retail prices of all important commodities, Imports and Exports, Public Health, Labour, Animal Husbandry, Electricity, etc.

Obtainable from:—

The Superintendent,
Government Press,
Mount Road, Madras-2.

Subscription:

Half-yearly	Rs. 6-8-0
Per copy	Rs. 1-2-0

will satisfy the view that teaching too many languages to young children is educationally unsound. It also avoids retarding the progress of those who may lack the talent to pick up several languages but whose intellectual ability may be quite good. But those that have the particular talent can take one or even two more languages. They can take up a classical language without losing the chance of studying their mother-tongue or Hindi.

Wide Choice Offered

I have received numerous representations from the teaching profession suggesting changes on these lines. I have most seriously considered these and all other suggestions that have been offered. I have consulted experts with long experience of school education. Government are, therefore, issuing orders for making provision for languages on the lines indicated above in the First Form from this academic year. It will be progressively extended to the Second Form next year and the Third Form in the year after.

This is merely carrying a step further the achievement of the object with which the diversified courses have been started. Years ago the old Matriculation required every student to take the same subject. The School Final course first provided for an optional subject chosen by the candidate. Our diversified courses have enormously widened the choice to suit varying abilities and needs. The change now proposed for languages has the same end

Changing the Date of Birth in School Records

Quite a large number of applications are being received by the Director of Public Instruction, Madras, requesting for a change of date of birth entered in the Secondary School-Leaving Certificate. No doubt these applications are accompanied by proofs, but according to the rules of the Secondary School-Leaving Certificate scheme, applications for change in the date of birth must not be entertained after a pupil has completed his school course and appeared for the Secondary School-Leaving Certificate Public Examination.

Provision is made in the rules for the school authorities exercising great care to ascertain the correct date of birth of the pupil and enter the date in the Secondary School-Leaving Certificate. If the date of birth proposed to be entered in the Secondary School-Leaving Certificate does not differ from the date entered already in the Admission Register of the School, no evidence is demanded from the parent or guardian of the pupil, but a declaration to the effect that the date of birth entered in the School Register is the correct date of birth of the pupil and no alteration of that date will be demanded in future on the plea that the correct date was not given at the time of admission, is obtained from the parent or guardian and filed in the school.

In cases where the parent or guardian makes a request for the entry in the S.S.L.C. of a date different from the one already entered in the School Admission Register, he is

required to produce reliable evidence of the correct date. Generally these alterations will not be sanctioned if the pupil reaches Form V. While thus the rules provide ample scope for the parent or guardian to ensure that the correct date of birth of his child is entered in the Secondary School-Leaving Certificate, it would be unreasonable to expect the rules to provide for a change at any later stage.

The rules do not provide for setting up any machinery which can examine whatever evidence is produced regarding the date of birth, after a pupil leaves the school and order the change in the Secondary School-Leaving Certificate. The public can only have recourse to a Civil Court and it is to such a body that the applications should be made for this purpose, not only with the evidence but also with the reasons why the application is made to the Court instead of the Director of Public Instruction. The party must also be prepared to bear the costs of the Director of Public Instruction as the defendants. It is only on a direction from the Court that the Director of Public Instruction can effect a correction in the date of birth.

In view of the circumstances explained, applicants for change in date of birth should not expect their requests being automatically granted and should be prepared to allow time for the prescribed procedure being followed and for a refusal of their request if it is found inadmissible.

in view. Let a boy take two or three or four languages according to his choice.

FINANCE

Provinces did not get any share in the income-tax receipts. That was the position before the Government of India Act, 1935, came into force.

Again during the Round Table Conferences, the settlement of this question came in for a good deal of discussion. The Percy Committee, appointed by the Round Table Conference, also went into the question of Federal finances vis-à-vis Provincial finances. The Percy Committee made certain recommendations coupling the principle of population as well as accrual or the residence basis. The Joint Committee of the Parliament, subsequent to the Third Round Table Conference, considered that the Report of the Percy Committee suggested a useful line of approach on the assumption that an automatic basis of distribution could be fixed. However, the Government of India took a different view in the matter based on the needs and deserts of the various Provinces. Distribution based on the needs and deserts implies that the Provinces have different standards of administration and that those Provinces which have on the whole lower standards are entitled to larger shares than Provinces which have on the whole higher standards. Madras Government therefore opined that it would hit this Government adversely, for she was recognized to have a higher standard of expenditure. Here is an interesting passage from one of the despatches sent by Madras Government to the Government of India in 1935—

"At the time of the Financial Settlement, Madras, it is to be feared, will be handicapped by a reputation for opulence which the facts do not justify. Madras is erroneously supposed to be wealthy, because even in the period of economic depression it has managed to balance its budget. This Government maintain that this illusory appearance of prosperity is attributable not to the natural wealth of the Province, but to a consistently prudent management of its finances to which successive Auditors-General have paid frequent tributes and to a determination to tax itself adequately rather than look for doles from the Central Government to cover deficits."

Finally the Government of India Act, 1935, visualized participation of the Provinces in income-tax receipts on a prescribed percentage of the net proceeds under section 138, but what that prescribed percentage should be and how the divisible pool is to be distributed between the Provinces were all left to Sir Otto Niemeyer who submitted a Report in April 1936. Sir Otto went into the question de novo and gave his award based not on any well-defined principle, but on the cumulative effect of all factors. He gave his judgment but did not disclose his arguments and therefore it continues to be a bone of contention between the Provinces. Possibly he took population, residence and requirements into consideration and prescribed that Madras and United Provinces should get 15 per cent, Bombay and Bengal 20 per cent and so on. He also recommended certain Central subventions to deficit Provinces. Under this award, Madras had been receiving large sums of money since 1937. The figures are as follows:—

	RS.
1937-38	19 lakhs roundly.
1938-39	22

	RS.
1939-40	42 lakhs roundly.
1940-41	62
1941-42	101
1942-43	103
1943-44	292
1944-45	398
1945-46	431
1946-47	448
1947-48	535
1948-49	842

(which includes 90 lakhs due to us between 1st April and 15th August 1947).

This share in income-tax has become a substantial source of income to the Provincial Government and has sustained it during these hard days of increasing expenditure.

This Niemeyer Award held the field in tact till the partition of the country when it had to undergo slight modifications in view of the secession of certain territories in North-West and North-East India. Bombay's share was increased to 21 per cent, United Provinces' to 19 per cent, Madras' to 18 per cent and Bengal's to 12 per cent and so on. This increase in per centage does not mean any increase in receipts. At the two Finance Ministers' Conferences in 1948 and 1949 this matter came up for discussion and we could see that Bengal and Bombay again sticking to their old attitude while the other Provinces pulled in a contrary direction. While previously Madras and United Provinces were on a 15 per cent basis, after the 15th August 1947, United Provinces is given 19 per cent while Madras is given only 18 per cent. I took exception to this in 1948 at the Finance Ministers' Conference, but I am afraid, it had no effect.

In the meanwhile the Constituent Assembly appointed an Expert Committee to recommend financial provisions of the Indian Constitution with Sir Nalina Ranjan Sircar, Finance Minister, West Bengal, as Chairman. Some Government of India experts went to Australia to study how they were solving this question of financial relations between the States and the Commonwealth and this Expert Committee, perhaps, had the benefit of that report also. They recommended that 60 per cent of the net proceeds should be distributed among the Provinces—20 per cent on the basis of population, 35 per cent on the basis of collection and 5 per cent to mitigate any hardship that might arise in the case of particular Provinces as a result of the application of the other two criteria; the balance of 40 per cent to be retained by the Government of India. This recommendation will benefit Bengal and Bombay, as 35 per cent will be on the basis of collection. Along with other Governments, this Government too objected to this basis. An Insurance Company doing business all over India might pay its income-tax either from Bombay or from Calcutta. It does not mean that the 35 per cent of its benefit should go to the Provinces where it was paid. Likewise, the Tata's might manufacture in Bihar sell their steel all over India and pay their income-tax in Bombay. If this is strictly adhered to, Bombay alone will have the benefit while the manufacturing Province or the consumer Provinces will be

HORTICULTURE

completely deprived of their share. The Constituent Assembly did not take Sircar Report into serious consideration and it did not incorporate any of its major recommendations in the New Constitution Act. They left it to the future Finance Commission to go into the question thread bare.

In the meanwhile Sir Chintamani Deshmukh, till recently Governor, Reserve Bank of India, was appointed to examine the question of allocation among the Provinces and the Provincial share of income-tax till in the normal course this matter comes before the Finance Commission provided for by the New Constitution. So Sir Chintamani's Award will be a binding Award like the decision given in

somewhat similar circumstances by Sir Otto Niemeyer in 1936. But of course, it is only temporary till it is finally examined by the Finance Commission.

This Government pleaded once again that the main basis on which the divisible pool should be allocated to the Provinces must be the population basis and that the collection basis will be very misleading. I await the Award of Sir Chintamani who knows the difficulties of the Provinces; he was himself Finance Secretary of the Central Province Government when the Congress took office in 1937.

I am awaiting his Award with great eagerness and expectation and with a subdued sense of security.

Note.—The award has since been announced.

The Agri-Horticultural Society, Madras

By MR. V. S. HEJMADI, I.C.S.

Its Origin and Work

The earliest attempt to interest Government and the public in the Botany of South India was made by Doctor Anderson in April 1791 by opening a "Nopalry" in Lushington Gardens. The Nopalry contained "the olive, the stone-pine, the oak, the carob, the varnish tree, the myrrh, the balsam, the date, the pimento and the coffee." In 1800, the Governor decided that the plants should be moved to a more favourable climate and in July the same year 74 cooly loads of clove, nutmeg, chocolate, Mangostan, Doerian, Sago and other Melucca plants were kept ready for despatch to the Garden at Bangalore (Tal Bagh). Interest did not wane in Madras as a result of this transfer. On the other hand, the enthusiasm of Dr. Robert Wright, an eminent botanist of those days, was responsible for the starting of the Agri-Horticultural Society. It was inaugurated on 15th July 1835 at a well-attended meeting at the College Hall and two days later the first Committee of 12 met and announced that Sir Frederick Adams the Governor had agreed to become its first patron, Mr. John Sullivan its first President and Mr. Baynes its first Secretary. In 1836, the Society occupied the land which now forms the larger part of the gardens on the Mount Road, Madras. By 1837, work was in full swing. Successful efforts were being made to improve cotton grown in the Presidency by distributing better seed. In the same year, some tea plants received from China were sent by the Society to Mysore and the Nilgiris and it is believed some of those plants survived even till 1885. In 1838, Mauritius Sugarcane was obtained through the Board of Revenue, propagated and subsequently distributed. Coffee too was being grown and distributed by the Society in 1839-40 until Mr. Glasson started the first coffee plantation in the Wynnad in 1840. During the next few years, European and West Indian fruit trees were introduced, as also some species of mulberry and silk worms. Great strides were made also in the grow-

ing of indigenous and foreign culinary vegetables. In 1844, an attempt was made to use guano as manure, and a collection of Australian seeds reached the Society. In 1850, the Society successfully sent a case of grafted mango plants to Sir William Hooker at Kew. Vast numbers of casuarina plants were raised and distributed by the Society in 1853 for planting on the sand dunes on the coast north and south of Madras. Varieties of plants for spices, fruits and flowers, drugs and tanning materials, fibres and dyestuff, cereals and forage plants were experimented with and popularised in and around Madras year after year. Many of the common plants in Madras were distributed if not originally introduced by the Society. "Every step in the garden will unfold some new beauty to the true lover—the noble mahogany from the West Indies, the Diospyros from China, the Moreton Bay Chestnut, the giant Talipot from Ceylon and the Western Ghats, the stately calhago palm from Brazil, the huge Baobab, and endless others are to be seen." Shrubs too are found in great variety in the Society's grounds.

Since the Society was founded, each successive Governor has accepted the position of Patron. In January 1889, Lord Combermere gave an early tea to members and guests in the Ornamental garden and helped to draw greater attention to the Society's work. Distinguished botanists have worked as its Secretaries. Wallich, Royle, Wright, Roxburgh, Lindley, Thwaites, the Hookers and many others have been its contributors. The Society's proceedings printed as periodicals always contained interesting material. Mr. Thistle-down Dyer, Assistant Director of Kew, wrote in 1881: "Your Society is indefatigable in well doing and is decidedly the most energetic and intelligent in the style and scope of work in British India." This high standard has been continued in the 20th century also. Messrs. Fyson and Niody were two of the most energetic Secretaries in recent years. The Nursery Section

Amenities for Masulipatnam Town

Market Stalls

The central place of this town is the Robertson Square with a static water tank in the centre and four spacious quadrants, which previously constituted the market place for vegetables and all other commodities. The four roads leading to Vijayavada, Gudivada, Challapalli and the Fort converge from this place. The market place has all along been a mere conglomeration of unsightly and varied huts and palmyrah umbrellas, presenting a poor and desolate appearance not to speak of inconvenience to the shopping public.

This old order of things has given place to a new arrangement. The municipal council conceived the idea of permanent structures for the market and an estimate for the construction of 126 stalls of 16 feet by 10 feet with a verandah in front and with Madras ceiling was prepared and sanctioned by the technical authorities. The work is estimated to cost about seven lakhs of rupees to be financed entirely from a productive loan from State Funds. An amount of Rs. 1,80,000 was already drawn in the previous years and the Government have been pleased to promise the allotment of the remaining amount of Rs. 5,20,000 in the year 1950-51.

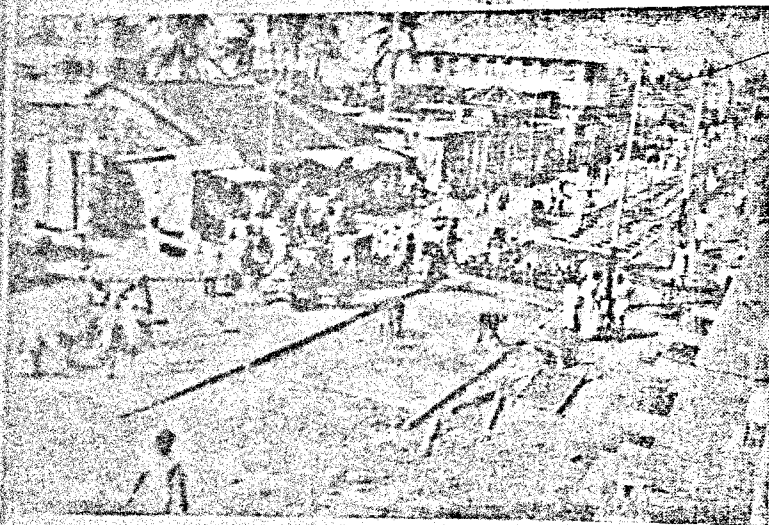
The foundation stone for this work was laid by Sri K. Chandramouli, Minister for Local Administration and Co-operation, and the work is now in full swing. The work comprises four blocks in the four quadrants. The concrete work in foundation is in cement and the basement and superstructure are in brick and cement.

Canteen in Municipal Park

Masulipatnam Town is endowed with a spacious municipal park by the side of the Cantonment Road. A canteen in the Municipal Park was started on 2nd December 1949 when its foundation stone was laid by Sri N. Sanjeeva Reddi, Minister for Prohibition and Housing. The work is estimated to cost Rs. 4,800. The canteen will cater to the needs of the people resorting to the Park.

Clock Tower in Robertson Square

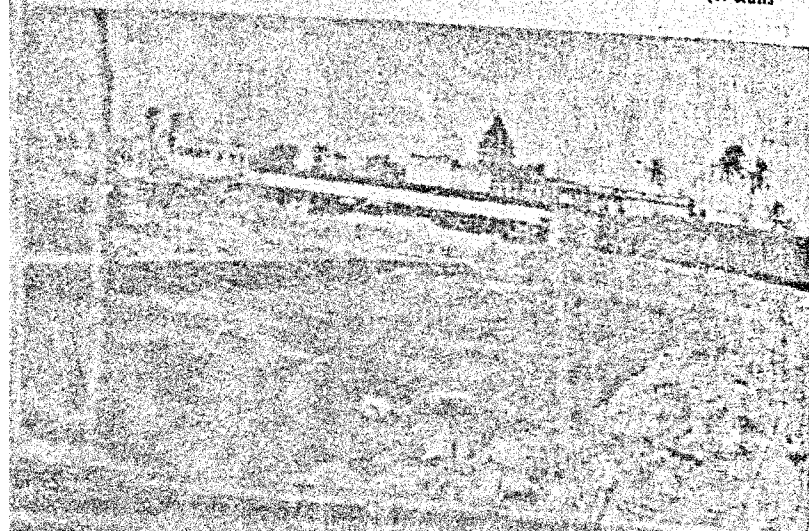
Sri Jaldy Manikyala Row, a philanthropist of Masulipatnam, has agreed to donate a handsome contribution of Rs. 25,000 to Rs. 30,000 for the construction of a clock tower in the static tank in the centre of the town. This is the point wherefrom the important roads to Vijayavada, Gudivada, Challapalli and the Fort converge. The foundation stone for this tower was laid by His Excellency the Governor in the year 1948. In spite of the best efforts of the Municipality to commence construction, the work could not be started so far, as the static water tank has not been handed over to the Municipality by the Fire Services Department. The Chief Secretary to Government, Public (Fire Service) Department and the Inspector-General of Police (Fire Services) have been requested to accord the required permission immediately, and it is hoped that the clock tower will be an accomplished fact within six months from the date of handing of the static water tank to the Municipality.



Cement Concreting of Sadak Road

The town of Masulipatnam is a place of distances and almost flat. There are no adequate facilities for drainage, with the result that after every rain, the town in certain stretches is a mere sheet of water, damaging the roads. Metal and gravel have to be conveyed from long distances from Vijayavada and beyond. The town is lacking in cement concrete and asphalt roads, while most of the other municipalities have advanced far in the construction of such roads. For the first time, stretches of Cantonment and Sadak roads which are the main arteries of communications in this town have been taken up for reconditioning to a length of 4 furlongs and 380 feet at a cost of Rs. 98,000 with the aid of half-grant and half-loan from State Funds. The cement concrete road surface is 24 feet wide, with foot-paths on either side abutting the drains.

The Haw Market has been cleared for erecting new market stalls



Wire Broadcasting System

Masulipatnam Municipal Council took the lead in the matter of Wire Broadcasting system in the Andhra area. The system operates from the Municipal Park. The loud-speakers are installed in the various parts of the town and at these vantage points, people particularly from the poorer localities congregate to hear music and other programmes. An expenditure of Rs. 9,800 was incurred up to the end of March 1950 towards the cost of the necessary installations and contingencies.

A new market for vegetables, fruits and flowers has been opened in front of the Municipal office by the Cantonment Road. The existing bus stand which is cramped, is being shifted to a new locality by the side of the Taluk Office where provision will be made for facilities of the passengers. Compulsory system of elementary education was in vogue in this Municipality for over 25 years and its Silver Jubilee was celebrated recently. Effective steps are also under way to impart Adult Education.

The following schemes have been proposed by the Municipal Council and they are under active consideration:—

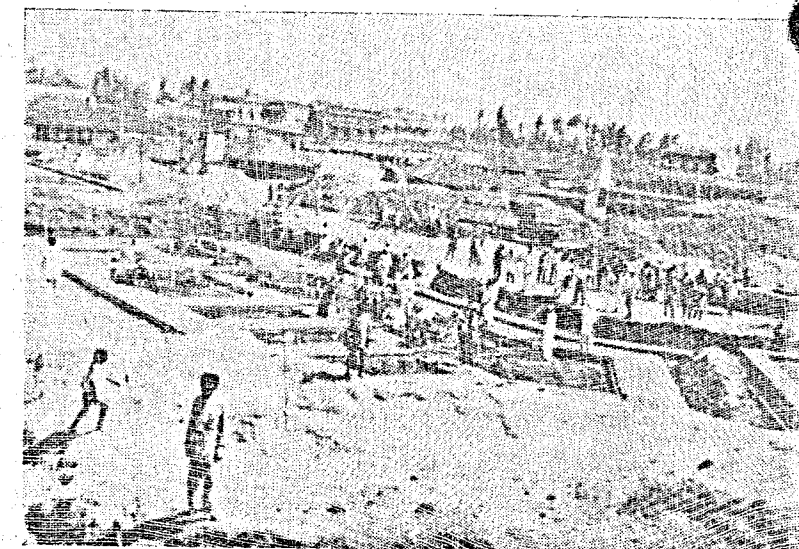
City bus service, extension of facilities of protected water-supply, underground drainage scheme, cement concreting and bitumen asphalt remaining stretches of roads in a five-year programme; permanent structures in the bus stand to the extent of about a lakh of rupees; opening of public markets; opening of more public parks; development of cottage industries in conjunction with the Town-Planning schemes for poorer classes, construction of public conveniences in places like the market area, important junctions, bus stand, etc.; widening the existing culverts and formation of road islands; and anti-malarial and filarial measures.

The Monuments of Tamil Nad

(Continued from page 32)

The Fortress or Kottai consists of three strongly defended hills—Rajagiri, Krishnagiri and Chandraya Durg—connected by a long circumvallation. The most notable is the Rajagiri precipice on which stands the citadel. It is about 600 feet high and consists of a ridge terminating in a great over-hanging bluff facing the south and falling with a precipitous sweep to the plain on the north. On every side it is quite inaccessible, the sides of the rock rising sheer from the base to a great height. Across this ravine the Hindu engineers built three walls, each about twenty feet high and rising one behind the other, at some little distance, which rendered an attack by escalade in that direction almost impracticable.

Several ruins of the fine buildings are situated within the Fort. There are a number of picturesque Mantapams supported by stone pillars on each of the hills and a large granary on the top of Krishnagiri. The most attractive ruin of all is the Kalyana Mahal, which consists of a square court, surrounded by rooms for ladies of the Governor's household. In the middle of this court is a square tower of eight storeys about eighty feet high, with a pyramidal roof.



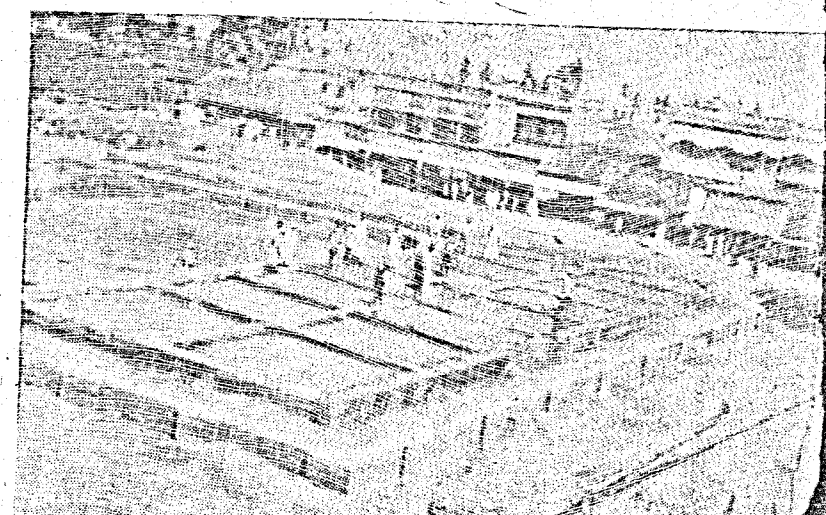
New stalls on the site of the old Evening Bazaar, where furniture, cloth and fancy goods used to be sold

Shark Liver Oil

As the public are aware, the Government of Madras are manufacturing "Shark Liver Oil" at the Government Oil Factory, Kozhikode. A new product has been evolved in recent years and is being marketed under the name of "Adamin". This is a high potency Shark Liver Oil, comparable in every respect to similar concentrates marketed by reputed foreign firms. Under the guidance of the Surgeon-General, Madras, Adamin has been tried clinically in the important hospitals in Madras State and the resulting data have conclusively proved the efficiency of Adamin in Vitamin "A" deficiency diseases.

The Superintendent, Tuberculosis Hospital, Madras, reported that four patients who received Adamin as a constituent of the nourishing diet prescribed for the patients, gained weight within six weeks. In all cases Adamin was well tolerated and no gastro-intestinal disturbances or allergic manifestations were noticed.

A new Vegetable Market on modern lines is under construction



A Sign Post for the Day's Choice of Food

Use these foods every day for good nutrition.

Milk—For each child 10 to 12 oz., every day. For each adult about 8 oz.—more for vegetarians. For an expectant or nursing mother, at least 12 oz.

Eggs—At least two or three a week.

Fruits and Vegetables—At least two or three servings in all, every day. Have at least one serving of a fruit or vegetable rich in Vitamin C, such as oranges, grape fruit, tomatoes, cabbage, strawberries. Have at least one serving of green leafy or green vegetables. For the other servings, use more fruits and vegetables including potatoes and other root vegetables. Use yellow fruits and vegetables often.

Meat, Poultry, Fish or Dhals—One serving every day. Dried beans, peas or groundnuts may also be used.

Cereals—Some every day. Use unrefined and whole-grain cereals often. Use unpolished rice and wholemeal flour.

Bread—As needed—use wholemeal bread.

Butter and Ghee—Some every day.

Fats and Oils—As needed—use in cooking but not on table.

Water—Drink clear pure water for health's sake. Do not cut down on the protective foods—milk, eggs, fruits and vegetables, lean meat, wholegrain cereals and wholemeal bread.

Daily nutritional needs of an average adult in terms of calories.

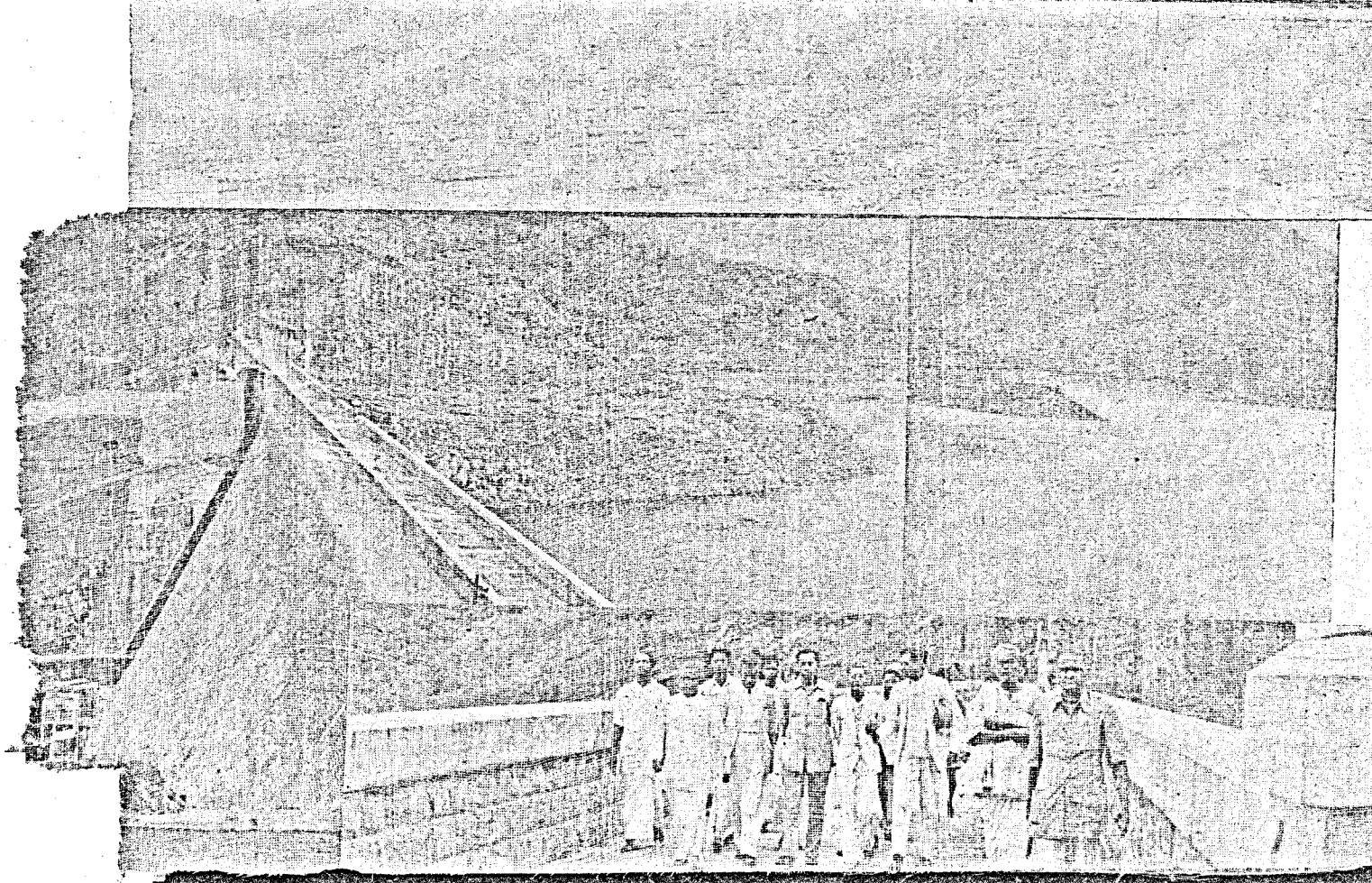
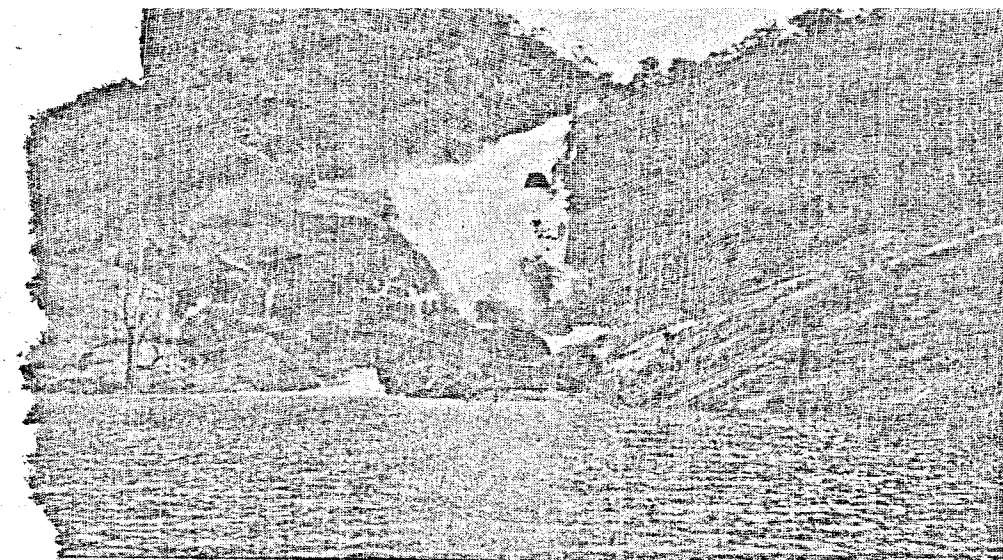
	Approximate daily requirements—oz.	Approximate number of calories.
Green leafy vegetables (rich in Vitamin A, iron and calcium).	4	52
Root vegetables like potatoes and sweet potatoes (high carbohydrate content, significant Vitamin C contribution).	4	100
Other vegetables (for vitamins, minerals and roughage).	3	30
Pulses, dry beans and peas, and nuts (valuable for high protein and thiamin content).	3	300
Fruits for minerals and vitamins.	2	36
Cereals and their products (good source of protein and some B vitamins and minerals), wholegrain bread.	12	1,200
Milk and its products, other than butter (important for protein, calcium and riboflavin).	6	198
Meat, fish, poultry or eggs (good sources of proteins, minerals and Vitamin B).	3	120
Butter, ghee or vegetable oils for energy (butter also contains A and D).	1½	375
Sugar or jaggery, sweets (for energy).	2	224
Total essential needs (approximately 2,600 calories).	Total ..	2,635

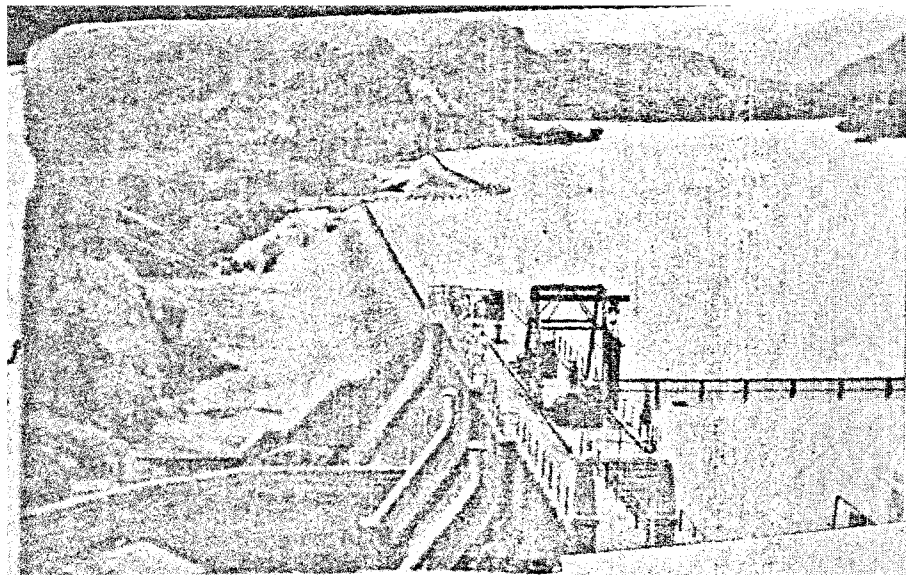
PAPANASAM HYDRO-ELECTRIC SYSTEM

The Bhanathirtha Falls which feeds the reservoir (left)

The Upper Dam viewed from the Lake and from the side (centre)

Sri M. Bhaktavatsalam, Minister for Public Works, accompanied by engineers and other officials inspects the working of the system (bottom)



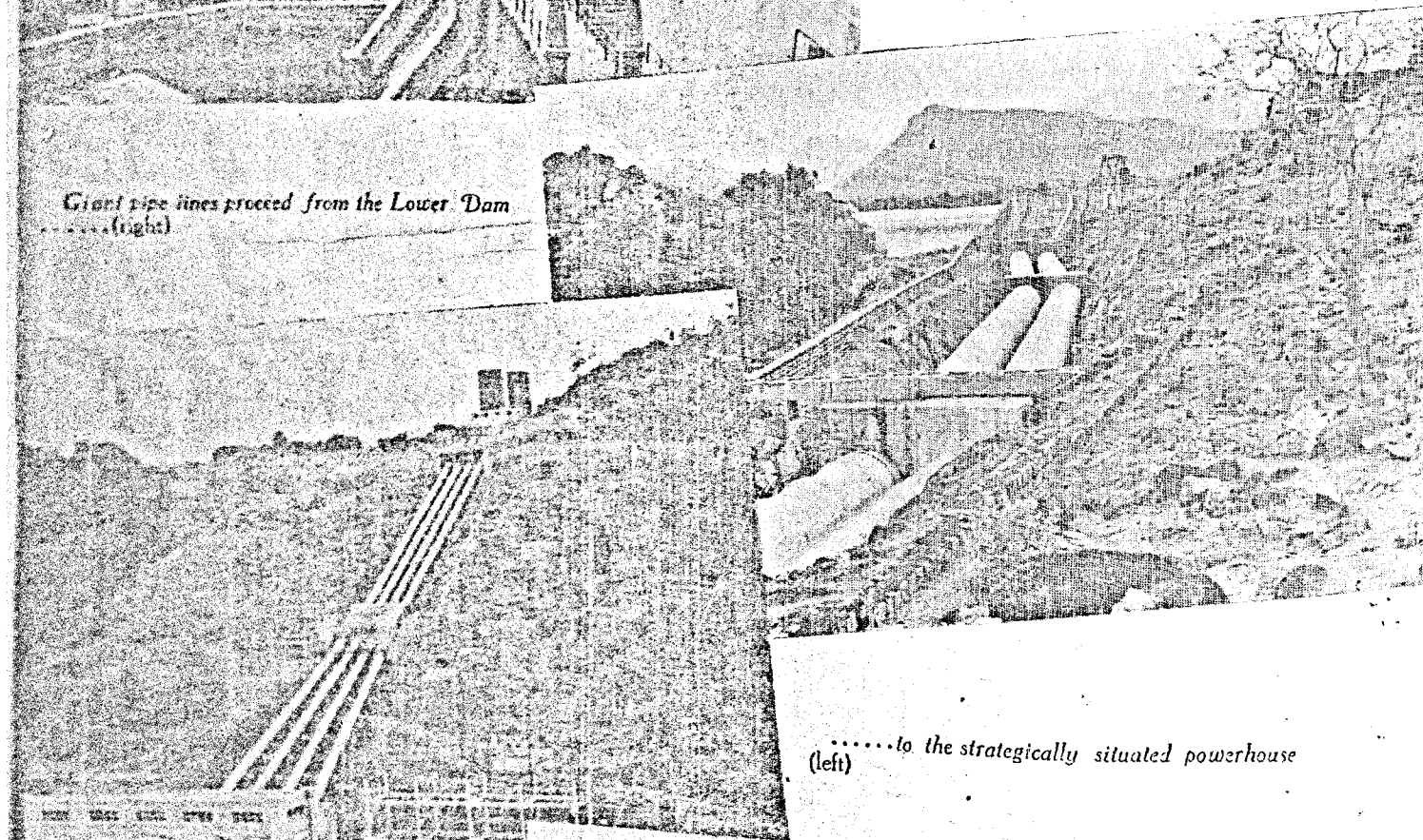


Registered No. M-4767.

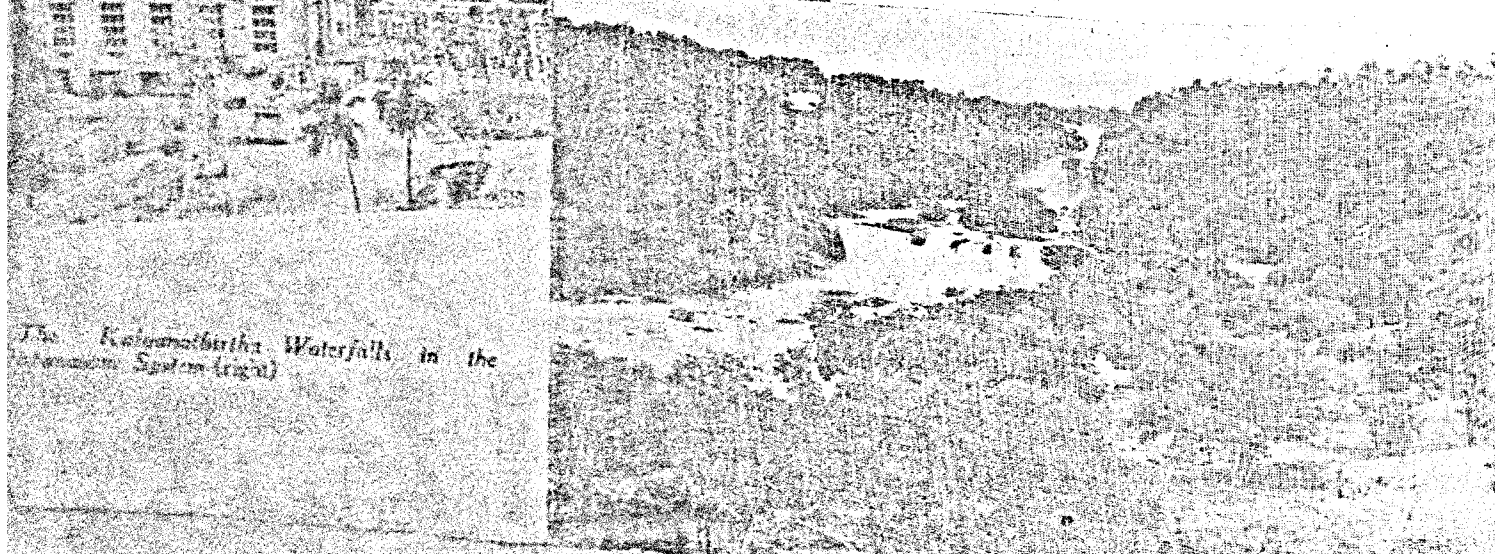
THE LOWER DAM AT PAPANASAM

This descriptive view of the Lower Dam at Papanasam depicts clearly how the waters are checked by steel and concrete to generate power. Observe the regulated overflow of the excess waters (left)

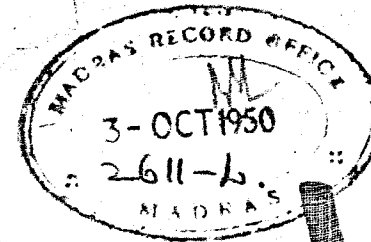
Giant pipe lines proceed from the Lower Dam
.....(right)



.....to the strategically situated powerhouse
(left)



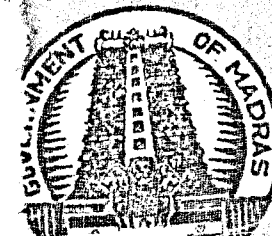
The Kallarathirai Waterfalls in the
Papanasam System (right)



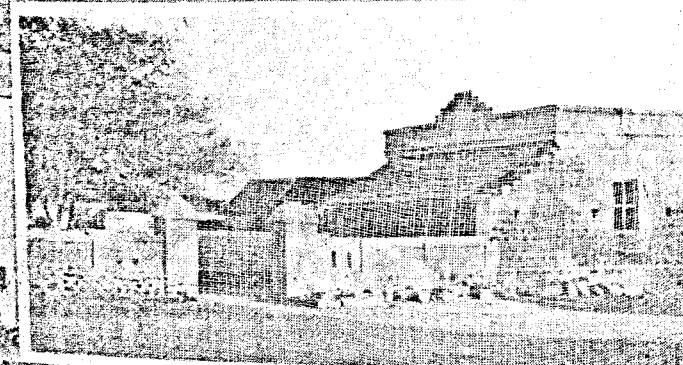
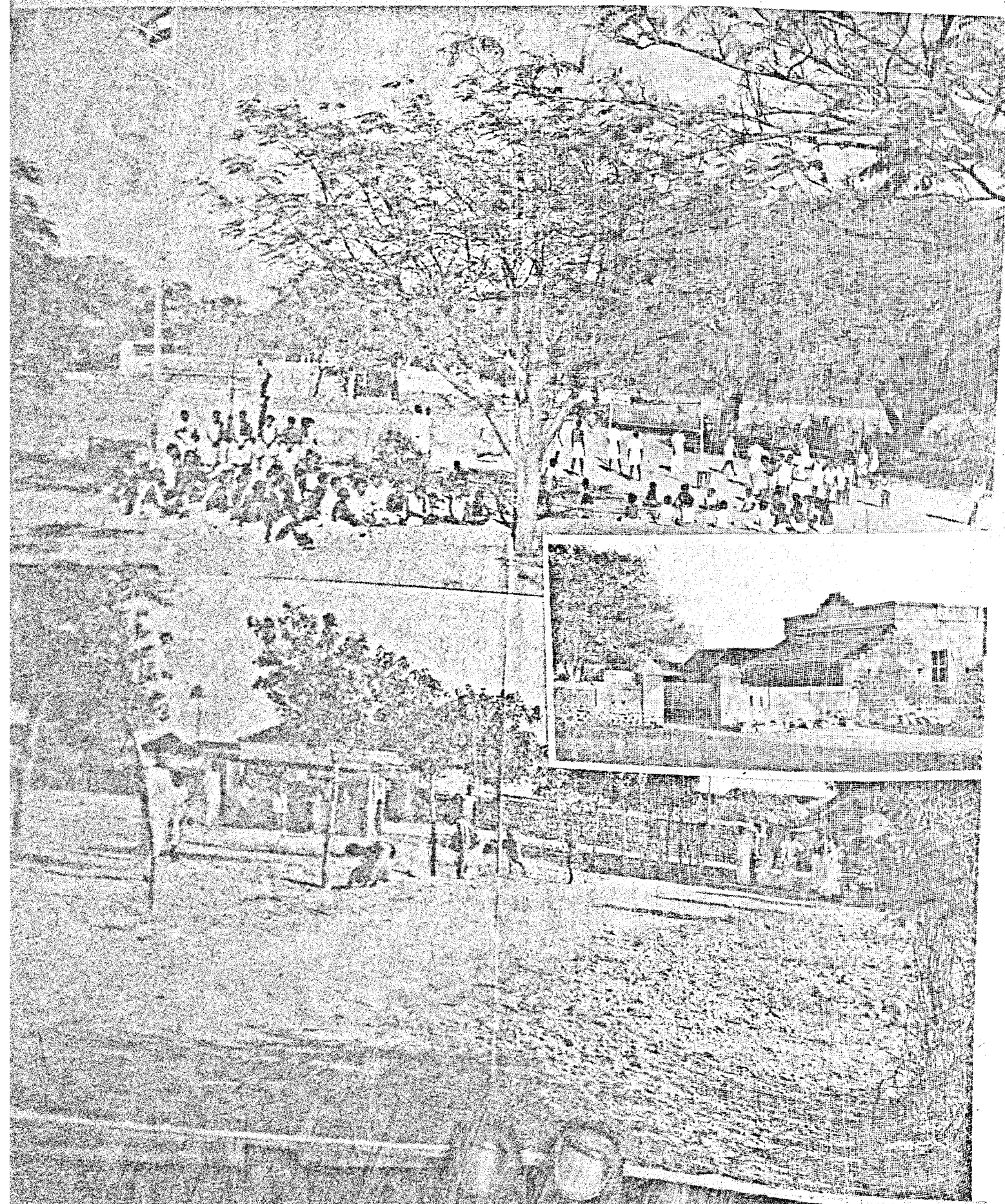
V-10, 118/50.
200

Madras INFORMATION

October 2, 1950
GANDHI JAYANTI



Price, As. 3



Madras Information

Published every month by the Director of Information and Publicity
Fort St. George

Vol. IV, No. 10

"WE SEEK TO SERVE AND NOT TO COMPETE"

October 1950

CONTENTS

PROGRAMMES—	PAGE
1. How We Cherish His Memory—By Sri P. S. Kumaraswami Raja	3
2. Stepping Up Food Production—By Sri V. T. Subbiah Mudaliar	7
3. The Intensive Fertiliser Scheme—By Sri A. B. Shetty	9
4. Agricultural Round-up	11
5. Towards an Independent Judiciary—By Sri M. Bhaktavatsalam	13
6. Corruption Among Government Servants	14
7. Notorious Gang Rounded Up	15
8. Amelioration Aims at Absorption—By Sri V. Bashyam Iyengar	16
9. Sri R. R. Diwakar at Mahabalipuram (Pictures)	18
10. Sober, Healthy and Happy	19
11. Happier Homes for Healthy Society—By Srimathi Parijatham Naidu	20
12. Leprosy and the Social Worker—By Sri T. N. Jagadisan	22
13. Land Mortgage Banks—By Sri K. Chandramouli	24
14. Labour Welfare in the State—By Sri Henry Peter	28
15. Problem of Plantation Workers	31
16. Fish Transport Vans	34
17. From Tribe to World Federation	36
18. Grow More Food Works in Chingleput District	38
19. Facts Behind Two Cases of Alleged Starvation	39
20. Why the Child was Given Away	40

CAPTION FOR 2nd COVER PAGE

Above : Evening at a Firka developed village. Note the orderly crowd listening in to the rural broadcast programme, the volley-ball game for youth, and group games for children. The park was laid out by the villagers of the place Kodanthur (Vellakott).

Inset : Village community centre under construction.

Below : Morning at Kallamadai village (Vellakott). Trees planted on Independence Day, 1947, line the road formed solely by the villagers. The park and the well are also products of self-help under the Firka plan.

How We Cherish His Memory

By SRI P. S. KUMARASWAMI RAJA, Chief Minister of Madras

It was Acharya K. Palani who said that there was no such thing as Gandhism and that there was only the Gandhian way of life. Gandhiji's teachings cannot be compressed into a code, reduced to a cult, or fitted within the rigid framework of an 'ism'. He has shown us the way—by himself going through the hard narrow path. In him, precept and practice were one; ideals and actions inspired each other and his means were as pure as the ends were noble.

It is our unique privilege that we were called not only to follow the Mahatma in his life time but also to cherish and enhance the legacy of love he has left behind for us. In our administration, today, it is our anxious endeavour to live up to his ideals; and we, in Madras, can justly be proud that we have been able to fulfil many ideals that were near to his heart.

Prohibition Inaugurates Renaissance

It is our misfortune that he was not in our midst to bless us on October 2, 1948, when the whole State of Madras went 'dry'. Madras was the first State in the country to introduce total prohibition. Time there was, when prohibition was being made an issue for academic controversy. But today, two years after its working, there are no 'pros and cons'; there are only benefits and more benefits to the people. The State, it is true, has denied itself a source of income to the tune of rupees 17 crores per year. But none, who has the interest of the people at heart, would refuse to own the enormous good this momentous reform has done, in particular, to the poorer sections of the people. It is no exaggeration to say that it has paved the way for their economic uplift, social awakening and moral resurrection. The Government have also tried not to force the new order of things by merely putting the measure on the statute book. They have been anxious to take the people along with them. Prohibition was introduced in slow easy stages; and side by side with legal enforcement, stress was laid on creating a new awakening among the people themselves.

Prohibition has, therefore, not ended with the mere abolition of drink; it has revealed to the people the potentials for creative work that were dormant in them. It has thus been a powerful engine for progress; it has brought mental cheer, physical cleanliness and all round wholesomeness to thousands who were living in and like dirt. It has created in them an urge to save, to serve and to be generally useful and worthy members of society. It has done much to stabilise home life and public life by making man more social and less selfish. It has also incidentally brought in its trial a slow but steady movement towards the renaissance in the long neglected crafts and village arts. Co-operative societies for jaggery manufacture, carpentry, weaving and other handicrafts have been started to provide alternate and in the bargain much more wholesome, steady and remunerative employment to the ex-tappers. In the sphere of recreation and

arts, ballad singing, folk dances and entertainments have been organised giving an impetus to the development of folk lore and rural entertainment.

Village swaraj

Bapuji was never tired of emphasising that the village was the foundation on which the edifice of Independence should be based. Here is his idea of Village Swaraj:

"My idea of Village Swaraj is that it is a complete republic, independent of its neighbours for its vital wants, and yet interdependent for many others in which dependence is a necessity. Thus every village's first concern will be to grow its own food crops and cotton for its cloth. It should have a reserve for its cattle, recreation and playground for adults and children. The village will maintain a village theatre, school and public hall. It will have its own water-works ensuring clean supply. This can be done through controlled wells and tanks. Education will be compulsory up to the final basic course. As far as possible, every activity will be conducted on the co-operative basis."

The Indian village has for long had a notorious weakness for faction, friction and litigation. A dispute over a common compound wall would be enough to provoke a bitter feud between families which would be prolonged and perpetuated by their faithful descendants. Till very recently any idea of villagers pooling their resources in joint endeavour to build roads, dig wells or provide any common amenities for public use would have been described or dismissed as moonshine. Yet precisely this thing is happening today in the villages. The idea of self-help and self-sufficiency was constantly stressed by Mahatmaji as the only way to make people less dependent on extraneous factors.

Rural Development Scheme

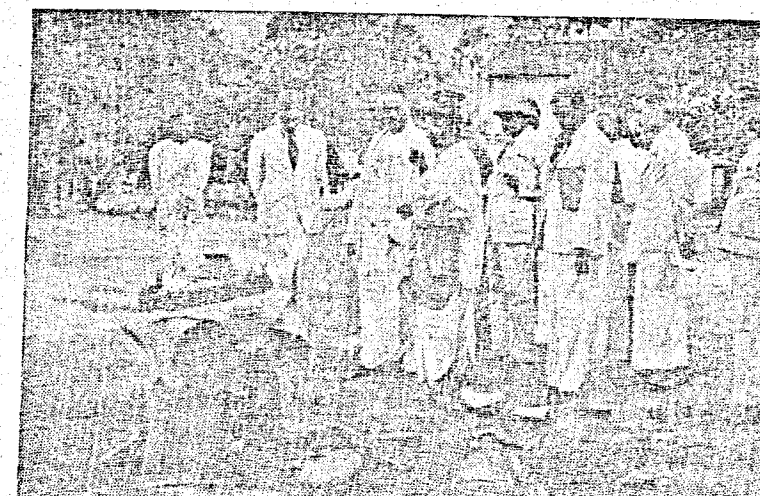
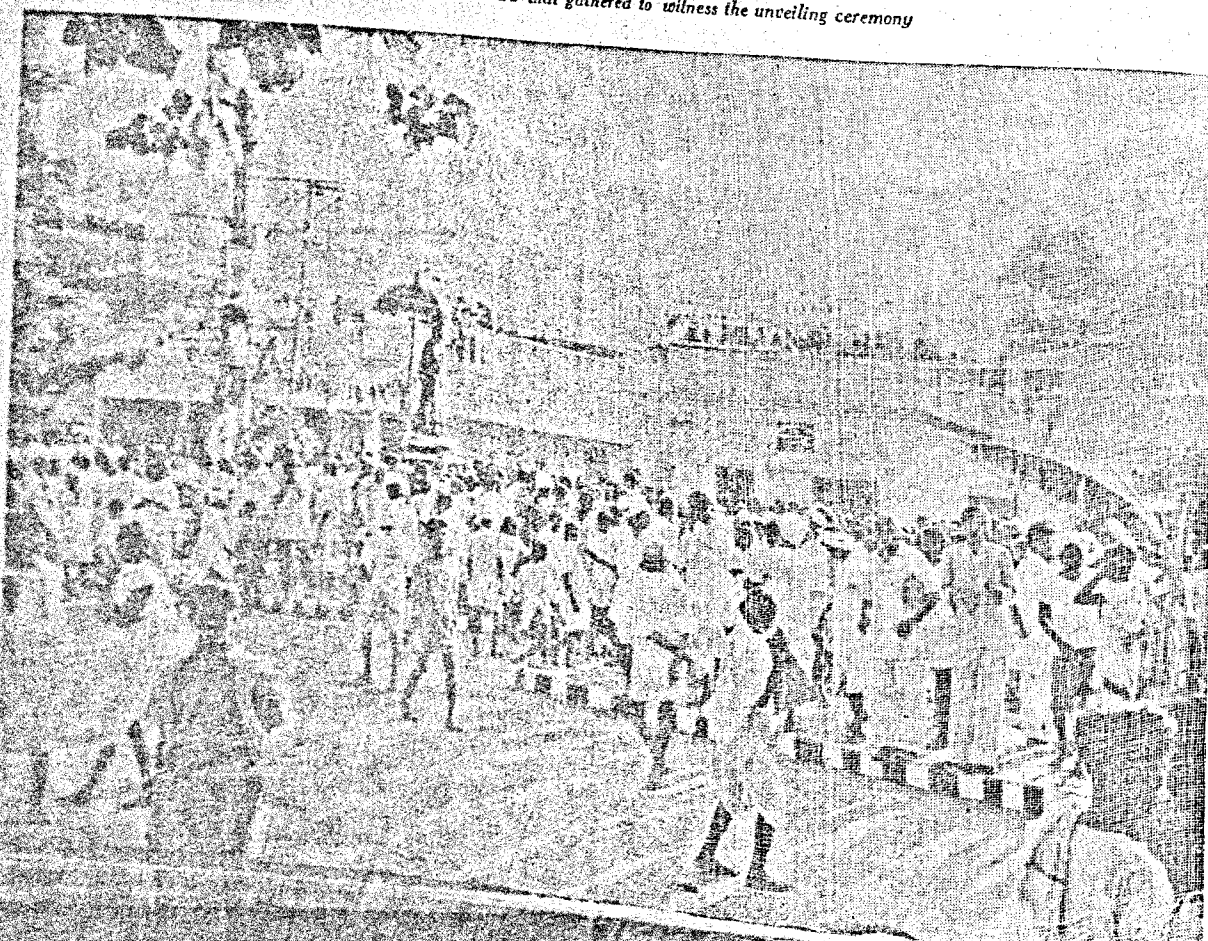
This idea is now being given concrete shape in the Rural Development Scheme of our Government. Under

Sri P. S. Kumaraswami Raja, Chief Minister, discusses palm gur manufacture techniques with the officials of the Co-operative Department, to provide steady employment for ex-tappers.

NELLORE SALUTES FATHER OF THE NATION

A statue of Mahatma Gandhi was unveiled recently by Sri B. Gopal Reddi, Minister for Finance, in Nellore. Also in the picture are Sri M. Bhaktavatsalam, Minister for Public Works, and prominent local personalities.

A section of the vast crowd that gathered to witness the unveiling ceremony.



Self-reliance through Spinning

Handicrafts like spinning which can be the prop of the villagers when they have no work in the fields are being popularised. The villager has been encouraged to spin for the cloth he requires for himself and his family. The ultimate aim of the Rural Development Scheme is to make villagers realise the value of self-help and self-reliance and redeem themselves from the idleness and poverty that oppress them today. The Rural Development Scheme was originally introduced in a few firkas and on the successful working of this scheme has now been extended to cover more than 2,500 villages in 84 firkas. The Khadi Scheme forms an integral part of the comprehensive plan for the rural development. This scheme is in force in seven centres in the State. Charakas are given to the villagers at reduced prices and subsidies also paid for the yarn spun by the villagers. It is the aim of this Scheme to see that Khadi thus produced is consumed by the villagers themselves.

"Khadi," said Gandhiji "was the sun around which the other planets of the constructive programme revolve." Madras can be justly proud of its achievements in this sphere of Khadi production. Besides Khadi, over 1.86 lakhs of rupees are being spent on promotion of cottage industries such as coir matting, casting, metal work, tanning, etc. A sum of Rs. 4.67 lakhs has been sanctioned on this account for the year 1950-51.

Rural Credit Societies

The Government attach great importance to the development of Rural Credit Societies into multipurpose units which would cater for all the economic needs of the farmer and the village artisans, such as credit, supply of seeds, manures and agricultural implements and raw materials, marketing of agricultural and dairy products and consumers goods, etc. With this object in view, the Government formulated a two-year plan to cover 50 per cent of the villages and 30 per cent of the population. Since then 1,750 Rural Credit Societies have been registered and 5,700 societies reorganized as multipurpose societies. Rural co-operatives today cover 54.6 per cent of the villages and 16 per cent of the population.

Rama Rajya through Grama Rajya

Gandhiji's Rama Rajya envisaged the entire structure of the State based on village units. Gandhiji's vision is being fulfilled in Madras State to a considerable extent by the introduction of Panchayat Raj. While the Rural Development Scheme prepares the villagers for economic freedom, the Panchayat Act passed by the Madras Government seeks to prepare them for increased enjoyment of political independence. Under this Act, each village with a population of 500 and above will have a Panchayat consisting of representatives elected by the people by secret ballot. These Panchayats will, besides looking after roads, lighting, sanitation, etc., be entrusted with administration of civil and criminal justice also.

The object is to make the Village Panchayats self-contained and self-governing units of local administration invested with large and practically independent powers in all matters relating to village economy. When the new Act comes into force, 23,000 more Village Panchayats are expected to be formed in addition to the 7,000 now existing.

Where I See My God

My God is myriad-formed and while sometimes I see Him in the spinning-wheel, at other times I see Him in communal unity, then again in the removal of untouchability, and that is how I establish communion with Him according as the spirit moves me.

—GANDHIJI

The Panchayat Act is the nearest approach to the fulfilment of the ideal of decentralisation, so dear to Bapuji.

A major plan for rural water-supply has also been sanctioned and a sum of Rs. 1 crore has been set apart as an initial contribution in 1947-48. It was decided that in addition, Rs. 15 lakhs should be set apart every year from current revenues. Rural electrification is also being given top priority. While in the year 1946 the number of villages electrified was negligible, to-day 1,371 villages and 78 municipal towns have been electrified.

What has been mentioned above would show in some measure, the anxious concern and abundant interest of the Government in developing the villages and restoring them to their pristine glory.

Crusade against Untouchability

If it can be said that the Father of the Nation, without loving any of his children less, loved some more, then his pet children were indeed the Harijans. The crusade against untouchability and for the uplift of the Harijans, was the mission of his life. In Madras State statutes have been enacted to throw open all the temples to the Harijans and making discrimination against Harijans in any public place a penal offence. Under the Rural Development Scheme of the Government, Caste Hindus and Harijans have joined in digging wells for common use. This is but one instance to show how far the spirit of social equality has spread in our villages which were the traditional strongholds of conservatism. The Government are spending huge sums to offer free educational facilities and scholarships to Harijan students. The scheme to provide house-sites for those who do not already have a site of their own is also in force.

The steep rise in expenditure on Harijan Welfare can be judged from the following figures: While in 1924 a sum of Rs. 8.7 lakhs was spent, in 1949-50 Rs. 71.21 lakhs have been spent. The provision for the current year, Rs. 92.67 lakhs, registers an increase of Rs. 20 lakhs even over the expenditure of last year. While in 1924, there were 500 schools for the Harijans catering to 14,500 pupils, in 1949 the number of schools had increased more than two and half times, while the number of students had increased fourfold. The Madras Government can, therefore, claim to be a worthy guardian of the pet children of Bapuji.



At a Harijan Hostel, the girls gather round their teacher for special classes.

National Education

Gandhiji had once said that if India were to make progress we should unlearn what we have learnt during the past 50 years. He was deeply pained that our students, the hope of future India, should be forced to go through the mill of an educational system that was foreign in its objects and its approach. It was with a view to place an alternative and national system of education before the country, that he evolved the system of Basic Education which, as a fitting tribute to its author, is even better known as the Wardha Plan. Basic Education which correlates academic studies with knowledge of, and training in, a craft, trains a student to be a self-reliant and useful member of society, and is thus a rare blend of idealism and eminent practicability.

The Government have accepted the policy of introducing Basic Education in the whole State within as short a time

A line of houses in a Harijan colony shows the sturdy construction and spacious layout.



as possible. A scheme for the conversion of training schools into Basic Training Schools is being put through. Apart from the introduction of Basic Education, the whole system has undergone a thorough reorientation, while at the same time great care has been exercised not to force the pace. The mother-tongue has been recognised as the medium of instruction, while English too has its place. Provision has also been made for the study of Hindi, the national language of India. An intensive drive for adult literacy has been launched. It is the aim of the Government to make the 184.9 lakhs of adult illiterates who form 43 per cent of the population in this State literates, in 10 years. "Each One, Teach One" is now the slogan and the assistance and active co-operation of students, social workers and non-official agencies is being actively enlisted in this momentous task.

Land for the Tiller of the Soil

Dignity of labour is one of the basic principles of Gandhian thought. This man who was above the entire nation, held that no work was below his dignity. He was prepared to do even the work of scavenging. He had great respect for the dignity of labour—any labour as long as it was honest—and utter contempt for the idler's exploitation of others' labour. The hardest hit was the tiller of the soil, who often laboured so that others might live. The abolition of the zamindari system in Madras State saw the redemption and resurrection of the ryot who for centuries past had been in bondage.

The Zamindari Act will affect 213 lakhs acres and will abolish 2,810 zamindari estates. Most of the major estates have already been taken over and the entire process is expected to be over by the end of this year. While the tiller of the soil has thus been given a new deal, the worker in the factory is also enjoying a marked improvement in conditions of work and living. The machinery for the settlement of labour disputes has been working successfully in this State. The Shop Assistants Act has given much relief to employees by fixing maximum hours of work.

Gandhi Jayanti on October 2, 1949, was celebrated in the State of Madras with the introduction of the Separation of Judiciary from the Executive in two districts in the first instance. Madras was the first State in India to

Road building, a prime necessity in most villages, undertaken on self-help basis

enact this reform which, for long, had been the dream of freedom fighters and eminent jurists. The successful working of the Scheme had led to its further extension and it is now in operation in 12 out of 25 districts.

Status of Women

Talking of law, much has been done by the State of Madras for the law-makers of the home—the women. Gandhiji gave women their due place of importance in national life. It was under him that a revolutionary change came over our womenfolk and they came out in their thousands to follow him—either to the jail or in the constructive field of activity. Madras is the only State having a separate department called Women's Welfare Department. More than three lakhs of rupees are spent every year on this department which has 67 branches and 303 centres throughout the State.

Turn to the Village

The cities are capable of taking care of themselves. It is the village we have to turn to. We have to absue them of their prejudices, their superstitious, their narrow outlook and we can do so in no other manner than that of staying amongst them and sharing their joys and sorrows and spreading education and intelligent information amongst them.

—GANDHIJI

Ideal of Self-sufficiency

The ideal of self-sufficiency is of vital importance in Gandhian economy. Madras has always been deficit in food and the adverse seasonal conditions have made the position acute. The Government are doing their utmost to meet the difficult situation boldly by a three-pronged drive for increased production, organised procurement and planned distribution. Self-sufficiency in food by 1951 is now the accepted goal and imports are being progressively reduced. In pursuance of the Grow More Food drive, 170 irrigation schemes at a cost of 244 lakhs of rupees have been sanctioned since May 1946. As a result of various agricultural schemes, an additional production of more than five lakhs of tons of foodgrains was obtained in the year 1949-50.

With Nature relenting—signs of which are not wanting—and our efforts unrelenting, we can be confident of making a successful bid for self-sufficiency. There was a time when the ideal of self-sufficiency as expounded by Bapuji was ridiculed as a fad. Later the principle came to be accepted vaguely by many, without its being considered a live issue. Today it has become a vital need and our future prosperity is unmistakably tied up with its success. "Do or Die", he had once declared. We DID PRODUCE or PERISH. With Bapuji's blessings we shall produce—and flourish, and cherish his memory for ever.

Stepping Up Food Production

By SRI V. T. SUBBIAH MUDALIAR, Headquarters Deputy Director of Agriculture, Madras

There has been a shortage of food in many countries from the commencement of the last world war. The people had previously no concern or thought about food or agriculture. Then came the shortage and rationing of food and people began to feel and express that agriculture should be improved and that crop yields should be increased. They recognised the existence of the agricultural class of people and the fact that the prosperity of the country was closely linked with agriculture. It is imperative that agriculturists should come forward to do their duty and make the country prosperous. It is their pride, privilege and duty to increase the production of food to the maximum and feed the people. There is no doubt that if every agriculturist pledges to do his bit and helps to increase the production of food, the present shortage could be got over easily.

Perhaps it may be asked what individuals could achieve. If everybody puts his shoulder to the wheel the result will be a flood uncontrollable. Many a mickle makes a muckle, and even small individual efforts contribute to the aggregate and bring about the tide and the flood. We may now pause and see what we can do as individuals to solve the vexed question of production of food.

Irrigation Facilities

Rains have been scanty for the past three seasons. Dry crops have been unsatisfactory. Wet crops fed by rivers and tanks have given indifferent yields. Where natural irrigation facilities are lacking, the provision of irrigation wells in large numbers would stabilise crop production and failure of crops and insufficient food would become things of the past. Underground water is not at the same level everywhere. It is high up on certain places and low in others. Where water table is high up, wells should be dug and production of irrigated crops should be increased. Electricity is now available in many places and use of electricity for lifting water would save human and cattle labour. Where electricity is not available, oil engines and pumps could be installed. They are not so handy as electric pumps but are none the less convenient and certainly better than bullocks. The Agricultural Department helps cultivators to select and purchase electric meters, oil engines and pumps.

When irrigation is provided, crop production increases, more food is taken from the land and the land is likely to lose fertility, unless the fertility taken from the soil is put back, to maintain the condition of the soil and stabilise increased production. It is therefore necessary to manure the land when crop production is increased by irrigation and other means. Any substance that contains the ingredients of plant food would serve as manure. Crops remove plant food from the soil, men and animals feed on them and void dung and urine. If the dung and urine are collected and returned to the land, the fertility of the land would be maintained. The plant stalks are mainly used as cattle feed. All the dung and urine voided by cattle are not, however, collected and preserved for use on the land.

A part of the dung is dried and used as fuel. The urine is not at all collected. The urine of cattle is also rich in plant food. An animal voids through the dung and urine nearly equal quantities of nitrogen, and it is therefore necessary to collect all the urine voided without allowing any to go to waste.

Green Manures and Organic Manures

Waste litter, straw and dry earth should be used as bedding for cattle and the moistened materials should be collected along with the dung every day and stored properly. Woods, dry leaves and all organic materials serve as proper manure for crops. They should all be collected without being wasted and added to the manure pit to augment the manure obtained. Green manure crops should be raised and ploughed into the soil for increasing the

Private Sales of Foodgrains

It has been suggested to the Government that in the scarcity areas of the deficit districts of the State, where procurement out of the last crop has practically ended, the monopoly purchase rules may be slightly relaxed upto 31st October 1950, by allowing private sales by producers within the village for personal consumption upto 2 lb. of foodgrains, without prejudice to the individual quotas fixed for procurement which still remain to be procured.

The Government, after due consideration, have accepted the above suggestion and have accordingly ordered that in the deficit districts of the State, viz., Anantapur, Bellary, Cuddapah, Kurnool, Chittoor, North Arcot, South Arcot, Chingleput, Tiruchirappalli, Salem, Madurai, Coimbatore, the Nilgiris, South Kanara, Malabar, Tirunelveli, Ramanathapuram and Visakhapatnam, Collectors should allow private sales within the village till 31st October 1950, only, for personal consumption upto 2 lb. of foodgrains, to partial producers and non-producers who are in need.

The Government have also ordered that such sales should be made only at the retail prices fixed for the foodgrains in the village and that the stocks so sold should be only from the balance left with the producers after meeting the Government demand under the procurement scheme. The Government hope that the above concession will enable any small surplus quantities of foodgrains in villages to circulate lawfully within the villages and relieve the hardship of the people to some extent by discouraging the black market.

organic matter content of the soil. The soil gets mellow thereby. Appropriate green manures should be selected at the time of sowing. *Kolingi* (wild indigo) is suitable for sandy and loose soils. Indigo and Pillipesara come up well in clay soils. Sunhemp is ideal for loamy soil. *Drincha* does well in all classes of soils inclusive of alkaline soils. Besides there are other manures. The various oil-cakes and ammonium sulphate are rich in nitrogen. Nitrogen promotes vegetative growth. When suitable manures are used, the yields could be increased in general by 15 to 20 per cent.

The crops are sometimes attacked unexpectedly by pests and diseases; these could be averted by the use of suitable pesticides and fungicides. They could be dusted over the crops in powder form with dusters or sprayed as liquids with sprayers. The application of these chemicals may cost Rs. 5 to 10 an acre, but the damage done by insects and diseases could be effectively prevented and the loss of crops and produces could be averted by taking appropriate

A machine for dragging water from a well is being fitted by engineers at an old well. Here sweet water in sufficient quantity was found within 6 feet from the surface. The pumping set installed at the site pumped out water at the rate of 40,000 gallons per hour for several hours without any effect on the water level, which indicates that the rate of infiltration of water from the subsoil was equivalent to the rate of pumping. A pioneer experiment in progress at Samdari, a small town in Marwar, 50 miles, west of Jodhpur City.

plant protection measures in time. The chemicals and equipment needed for applying them are available with the Plant Protection Assistants stationed at district headquarters. Timely plant protection service has become familiar to the cultivators during the past two years and they have been benefited considerably. Plant protection measures should however be taken up in time.

Use of Improved Seed Strains

The basis factors of production have been briefly considered and it has been seen how they influence crop growth. The use of improved seeds of quality would also help greatly to increase production. Considerable research has been done at the various Agricultural Stations about the evolution of improved strains of the different crops and a number of improved strains have been produced, suitable for the various regions. It cannot be asserted that they will do equally well under all conditions of soils, climate, irrigation facilities and other factors. Strains appropriate to the different soils, climate, irrigation facilities should be chosen and used for augmenting crop production. Strains suitable for the various regions are listed in *Mezhichelvam*, the Tamil Journal, and *Padi Pantalu*, the Telugu Journal, that are published monthly by the Agricultural Department. Choose the strain suitable for your lands and use it. The use of improved seeds are being popularised by the Agricultural Department. The use of improved seeds is likely to increase production by 10 to 15 per cent normally. The seeds of the various improved strains are produced in seed farms and stocked for sale in the different taluk agricultural depots.

Reclaiming new land and pressing it for cultivation is another method of increasing total production. Agricultural labour is costly at present and reclamation of land with manual labour may be difficult and not economical. A few motor tractors with ploughs and bulldozers are let out for hire for reclamation work by the Agricultural Department. Nearly 50,000 acres have been so reclaimed during the past three years. Reclamation is done cheaply and expeditiously. The mechanised units are helpful and it is our duty to see that land that could be levelled and reclaimed should be pressed in for cultivation for increasing food production.

All the people in the country suffer from shortage of food; food production therefore should be taken to be service to the country, a service that combines the profit motive also. Feeding relatives and guests has been our national heritage and tradition. All the cultivators should follow and preserve the tradition and treat it as their duty to increase the production of food to attain self-sufficiency and make the country prosperous.

(By courtesy, A.I.R., Madras)

Panchayat Forest in North Arcot

In pursuance of the policy of Government to transfer the management of the Panchayat forests to the Forest Department, the Government have directed the transfer of the management of the Panchayat forest in North Arcot District excluding the Ammanur Panchayat reserve in Arkonam Taluk of the Forest Department with effect from the date of taking over.

The Intensive Fertiliser Scheme

By SRI A. B. SHETTY, Minister for Agriculture

The growing food scarcity and the abnormal rise in prices are the two questions uppermost in the minds of the people at present. The severe comments and criticisms made in the Press and in our Legislatures regarding short rations in towns and no rations in rural areas reflects the present discontent. Hoarding and blackmarketing have received a fresh fillip and they are making a bad situation worse. Persons and parties opposed to the Government are exploiting the present food situation for their own propaganda purposes. The international situation that has arisen on account of the Korean war has become a source of potential danger to the economy of every country. War developments may seriously curtail the chances of our getting any food imports from abroad and also make us pay dearly for whatever we are able to get.

We must be prepared to meet any such emergency by increasing our food production to meet our requirements within the quickest possible time. We must produce enough food or perish in the attempt. That is the grim alternative confronting us today. We need not be panicky but we should not be complacent either. The people must know the truth and they must give us the full and unstinted co-operation which the present situation demands. The Central Government are taking action to deal with the rise in prices and drastically punish persons guilty of excessive hoarding of foodgrains. The law can be ruthlessly enforced against blackmarketing and profiteering if public opinion gives the necessary co-operation to Government in this matter.

Three Main Requisites

Irrigation—

What are the immediate and practical steps to be taken for maximising food production? We have no doubt large extents of waste lands, but the area that can be reclaimed and brought under food crops within the next two years will be too small a fraction of the total cultivated land and it will not make any appreciable addition to our food resources. We can obtain better results by increasing the yield of lands already under cultivation. The average yield is poor in our country compared with the yield in Western countries as well as in the countries of the East like China and Japan. The three main requisites for getting a better out-turn of crops are, additional irrigation facilities, use of better seeds, and proper manuring.

Better Seeds—

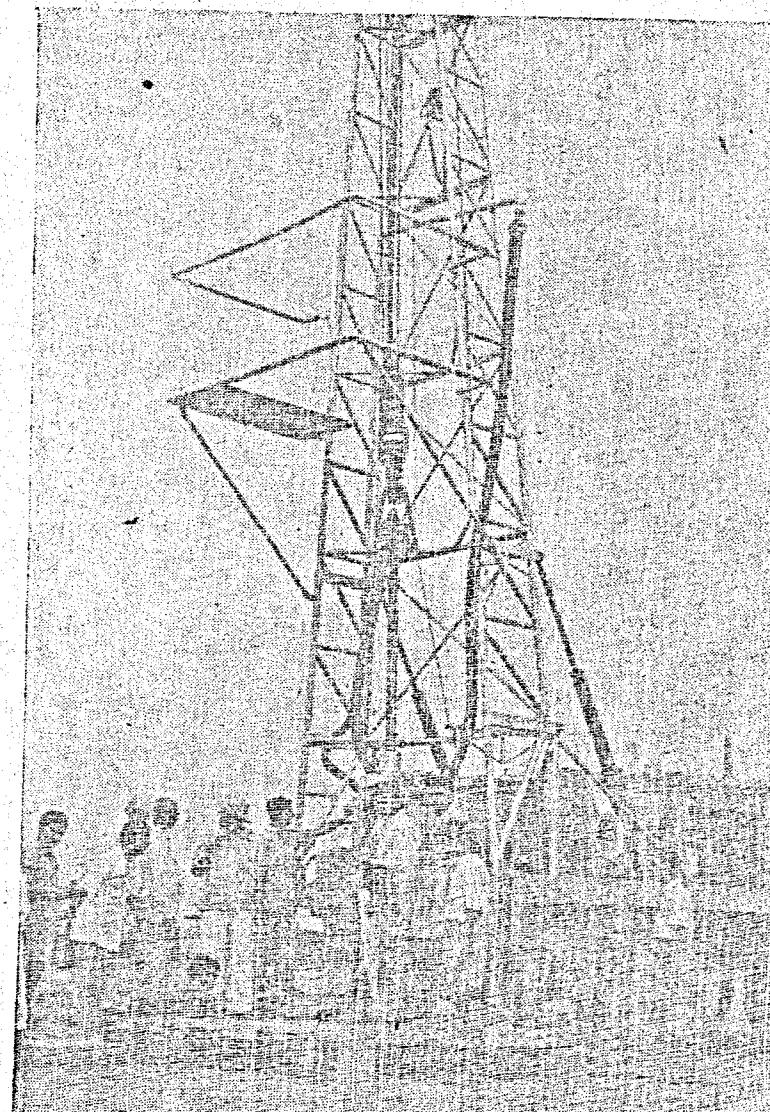
Government are spending large sums of money on the sinking of wells, renovation of tanks and other minor irrigation works which can give quick results. The special staff appointed for seed development work is attending to the multiplication and distribution of improved seeds with a view to make pure seeds available for covering as large an area as possible, within the next two years. Improved seeds are now being sold at controlled rates applicable to the ordinary variety of seed. The one thing most needful for increasing soil fertility is the use of manures

and fertilisers in adequate quantities. People must be made more manure minded. The organic manures which are available in this country are farmyard manure, compost, green manure and oil cakes.

Proper Manuring—

Compost making has not made sufficient progress in spite of the subsidy that is being given to it in rural areas. With a view to demonstrate the methods of preparing compost and conserving farmyard manure and also popularising their use, it has been decided to observe a "Compost Week" during the time of Gandhi Jayanti in the first week of October in every village in this State. The sale

Sub-soil water has been struck on the top of the Delhi Ridge near Chitarpur village about ten miles from New Delhi, as a result of an exploration recently undertaken by the Central Ground water organization of the Central Ministry of Agriculture. In this picture are seen tube-wells at Chitarpur village



price of green manure seeds has been reduced by waiving the recovery of the entire seed farm subsidy of Rs. 6-8-0 per bag and this is expected to help the spread of green manure work.

Campaign for Chemicals

The introduction of chemical fertilisers has become an important factor in raising agricultural efficiency in America and Europe. These fertilisers have played a large role in increasing food production and saving Britain from the U.S.A. menace during the war. The use of these fertilisers has now become an accepted practice in present-day agriculture. These fertilisers have so far been applied mainly to commercial crops in this country and now their use is being extended to food crops as well. Deficiency of nitrogen in the soil is the main manurial problem in India and other tropical countries.

Since ammonium sulphate is a concentrated and quick acting manure with a large nitrogen content, its use is of great importance for increasing our crop yields at the present time. The Government of India are making available to us this year larger supplies of ammonium sulphate and phosphatic fertilisers. An intensive campaign has just been launched for distribution of ammonium sulphate and superphosphate for manuring paddy crops. Since these fertilisers can be used profitably only where the land has sufficient irrigation facilities, nine districts having areas of assured water-supply have been selected for this intensive manuring scheme. The districts selected are: East Godavari, West Godavari, Krishna, Guntur, Nellore, Tanjore, Tiruchirappalli, Madhurai and Tirunelveli.

Fertilisers for First Crop

The extent of land under the first or long-term crop in these nine districts is relatively large (about 50 lakhs of acres) and is roughly ten times the extent under the second or short-term crop of paddy. It is, therefore, very necessary that the bulk of the chemical fertilisers available should be utilised for the benefit of the first crop of paddy, if maximum results are to be obtained. Sulphate of ammonia and superphosphate at 100 lb. and 50 lb. respectively per acre are being supplied to the ryots together. This has to be applied with a good basal dressing of green manure at 2,000-3,000 lb. per acre of cattle manure at ten cartloads per acre.

A typical manure pit in Northern India, with ryots dumping waste material into the pits for compost making



The normal agricultural practice in delta areas has been to apply groundnut cake and green manure to the first long-term crop and use fertiliser mainly to the second short-term paddy crop. Vigorous propaganda has to be done to convince ryots of the higher returns they can get by using fertilisers for the first crop which gives them the major portion of the rice production from their land. Financial assistance by way of loans has to be given to the poorer ryots to enable them to get fertilisers. The ryots will be given *takkavi* loans at the rate of Rs. 25 per acre up to a limit of Rs. 200. Additional staff of agricultural officers, maistries and messengers has been appointed for each of the nine districts so that the disbursement of loans may be effected speedily and the ryots instructed regarding the mode of application of the fertilisers.

The distribution of fertilisers has now been transferred from the Agricultural Department to Co-operative Societies and tender firms, and these agencies have opened depots at convenient centres in each district. The *takkavi* loans will be free of interest and will be granted on the personal security of the ryots concerned. If 100,000 tons of fertilisers could be put into paddy lands in these deltaic tracts, the increased yield could be estimated to be of the order of 200,000 tons and this will go a long way in meeting the food deficit in this State.

Change Needed in Diet Habits

When one reads the daily papers and listens to the food debate in the Assembly, the impression left in the mind is that the general attitude of the public continues to be one of looking up to the Government to do everything and criticising and running it down and finding fault with it for doing this and not doing that. Why can't we bring about a change in the dietetic habits of our people at a time like this when sufficient rice cannot be had either for love or money? People can substitute wheat and milo and make up the cut in rice ration. The poorer classes in Northern India consume wheat without using oil or ghee. It is mistake to think that wheat *chapattis* cannot be made without using oil or ghee. How long can we look to the Central Government to get us food imports from abroad when our foreign exchange resources have become depleted to an alarming extent?

India's Food Minister believes that there is enough food in the country to go round if the surplus States would only take appropriate measures to procure food-grains. His wish is that we must share like one family the food resources of all States. This is only a pious hope. The surplus States are unwilling to make any real effort for procurement and incur the displeasure of their peasant population. The Centre seems to have no power under the Constitution to enforce a uniform procurement policy in the States. The prices also vary from State to State. We have learnt from bitter experience how the quota allotted to us does not come in proper time and we have to pay sometimes exorbitant prices for what we get.

Plea for Public Co-operation

A predominantly agricultural State like Madras must be able to make up its deficit in food requirements. The top leaders of the country have called upon the nation to make a stupendous effort to grow more food and become free from dependence on foreign imports which spell disaster

to our economy. This is the time for constructive work and co-operative effort with the National Government in working the Food Production Plan. The advantages to be derived from using better seeds, more organic manures and chemical fertilizers should be broadcast among the millions of farmers in this land. The Press, the enlightened leaders of the people and the non-official associations doing public work should give full support to the Government in making the State self-sufficient in the matter of

food and set a good example of vigorous democracy in action. The immediate programme before us is to make the delta ryot understand the importance of the efficient use of fertilizers for better crop production and make him avail himself of the technical guidance and financial help which Government are now giving in this matter. The worsening food situation demands full co-operation from the farmers and the public in this Intensive Fertilizer Campaign.
(By courtesy, A. I. R. Madras)

Agricultural Round-Up

Subsidiary Food Crops

Madras State has a high density of population with about 54.8 million people subsisting on 30 million acres of net-cropped area. Under such circumstances, securing of the highest yield per unit area assumes an importance of more than ordinary significance. To achieve this as well as to secure sustained yields, intensive agriculture combined with careful crop planning is essential. Crop planning will be possible and effective only when we can accurately allocate the right type of crops and crop husbandry to each type of land. The traditional and somewhat natural urge to raise food crops in all available land has received a stimulus under the Grow More Food Campaign under which all facilities that the State can give are reserved for the growers of food crops.

It will be interesting to mention here that the area of cultivation per capita has been shrinking from 9.90 acres in 1911 to 0.72 acre in 1950. There has been a fall in the area especially under millets, without a corresponding increase under oil seeds, etc. Therefore, any short-term plan for increasing production should contain proper emphasis on making the existing cultivable lands yield more. One of the methods of increasing the yield, especially of carbohydrate food material, is by growing tubers, such as sweet potato and tapioca, in the place of irrigated millets and non-swampy rice.

The average production of rice may be said to be half a ton per acre. But the same land if grown with tapioca or sweet potato will yield on an average four and a half tons of tubers; it would give a third of dried material, in other words, one and a half tons. By growing tubers we produce at least thrice the quantity of rice possible per acre per year. Hence ryots are advised to extend the cultivation of tuber crops like tapioca and sweet potato, especially in districts where they have good facilities for growing these crops, such as South Kanara, Malabar, and Visakhapatnam.

Grow More Vegetables

Sri K. M. Munshi, India's Minister for Food, has urged the people to eat more vegetables to supplement the diet and overcome the shortage of cereals all over the State. With the advent of the South-West Monsoon, all vegetables growers should sow crops like Greens, Radish, Ladies-finger, Cluster Beans, Beans (*avarai*),

Brinjals, Tomatoes, Chillies, Bottle, Ribbed, Bitter, Snake and Ash Gourds, Red Pumpkins, Cucumbers, Coriander, Mint, Colacasia, Tapioca and Sweet Potato.

The Home Garden offers little choice in the matter of soil or location. The owner is compelled to make the best of the available land. If a choice is open, it is best to select sandy loamy soil which suits most vegetables. A heavy soil can be improved considerably by applying cattle or organic matter. The incorporation of rubbish and leaves into soil is a useful device to bring heavy soils into proper physical conditions. Manure and leaf-mould can be applied to all soils with advantage.

A plan will simplify the future work and economise labour in home gardening. Separate plots should be allotted for vegetables and fruits according to their season and the direction with reference to their cultural requirements. Perennials should be grown in a separate place. Vegetables that require pandals for support may be grown in a different place. The available space should be divided into two or three plots to permit the raising of different seasonal vegetables to reduce disease and insect attack and secure better yields.

The plots should be dug two feet deep and soil inverted, pulverised, levelled, and manured with well decomposed cattle manure or leaf mould or treated night-soil. The plot should be made into beds, ridges and furrows. Choice,

The Madras Co-operative Milk Supply Union at Ayanavaram celebrated Vanamahotsava, when mango, margosa and avenue saplings were planted by Sri B. Gopala Reddi, Minister for Finance, the Registrar of Co-operative Societies and others present



Seasonal vegetable seeds and manures are available at the Government Vegetable Seed Stores, 166, Mount Road, Madras, and Agricultural Depots in the mofussil. Special Agricultural Demonstrators will render necessary assistance in and around the City of Madras and local Agricultural Demonstrators in the mofussil.

Co-operative Farming

The present uneconomic size of the average holding is one of the chief impediments to the Grow More Food Campaign. Consolidation of holdings, or Co-operative Farming where compact blocks of culturable waste and fallow lands are available, will go a long way towards increasing our food production. Madras is a State of small holdings. The average size of a holding in Madras is only about 4.5 acres. Statistics show that among cultivators 51 per cent ryots own less than two acres, 38 per cent own two to ten acres and only 11 per cent own more than 10 acres.

The question of bringing in legislation to compel ryots to consolidate their holdings as well as to enforce improved farming methods was considered and given up, as it was beset with considerable difficulties. Co-operative farming methods have been tried and the results obtained so far have been satisfactory. It is therefore essential to concentrate on this method of farming. In many districts of our State there is great scope for co-operative farming. Public co-operation and suggestion in this respect will be most helpful.

Combating Pests and Diseases

One of the many reasons for the low yields of food crops in our State is the damage caused by pests and diseases. Sometimes, an entire crop is damaged by pests and insects of paddy blast. It is therefore quite essential to take suitable measures for plant protection. The Government have sanctioned a special staff consisting of four Crop and Plant Protection Officers, with the necessary subordinate establishment for dealing with outbreaks of pests and diseases under the Grow More Food Campaign. Each district has two Plant Protection Assistants, one an Entomologist and the other a Mycologist. They are under the administrative control of the District Agricultural Officer and under the technical control of the Crop and Plant Protection Officer.

The special staff is responsible for the control of pests and diseases of all crops. During the year 1949-50 a sum of Rs. 4 lakhs has been spent for the purchase of chemicals and other equipment required by the Special staff. They have treated with success more than two lakhs of acres of food crops and thus protected valuable crops worth many lakhs of rupees. Ryots are requested to contact the Plant Protection Assistants through the respective District Agricultural Officers for any help required to combat crop pests and diseases. Immediate action will be taken and crops saved from damage.

Assam Earthquake Relief Fund

The Government have permitted the Corporation of Madras, District Boards, Municipal Councils, Panchayat Boards, to pay, without further sanction of higher authorities or Government, contributions from their general funds to the extent to which their finances permit, towards the relief of persons affected by the recent earthquake in Assam.

Local Bodies which have deficit in their general or elementary education fund in the current year and which are in need of Government grants towards payment of Dearness Allowance to their staff, should not, however, make such contribution.

Soil Conservation

The problem of soil erosion has recently become very accentuated, with the increasing intensity of cultivation and pressure on land and consequent to forest lands being cleared and extensive grass lands being brought under plough without taking any step to conserve the top soil. The exact extent of soil erosion in Madras State is not known. It is estimated that in India, more than one-third of the agricultural lands are subject to erosion. It should be much more in Madras due to the vagaries of rainfall, rolling topography, inadequacy of forest and above all, lack of soil conservation practices. An appreciable portion of good land is becoming submarginal and again a portion of the submarginal land is going out of cultivation. Erosion of wind is not so extensive in Madras State as erosion of water. Soil erosion besides entailing loss of soil fertility, has its repercussions in other ways also, such as silting up of tanks, river beds, irrigation systems, sluices, etc., rendering them less useful.

Run off and soil erosion studies have been in progress at the Agricultural Research Stations, Hagari and Nanjanad. It was found at Hagari that fallows suffer less from soil erosion than cropped lands. At Nanjanad grass covering plots proved most satisfactory for checking soil erosion and water losses. Surface run off increases five-fold in 1:3 gradients as compared to 1:10 gradients. Grass covering plots effectively check run off, in both the cases.

Based on the experiments gained in Hagari and elsewhere in Bombay, the scheme for contour bunding 7,500 acres in the Ceded Districts has been sanctioned by Government. The scheme will include besides contour bunding, other soil conservation measures that may be found necessary in the bunded areas, such as gully plugging, turfing water ways, etc. A scheme for undertaking similar measures in 10,000 acres in each of the districts of Visakhapatnam, and Tirunelveli is also to be sanctioned by the Government. The ryots are advised to take up these measures and prevent loss of valuable surface soil, which makes their land barren and devoid of vegetation.

Towards an Independent Judiciary

By SRI M. BHAKTAVATSALAM, Minister for Public Works

Madras is proud to take the third step forward in implementing a reform of outstanding importance which has been engaging the attention of practically every Indian ever since the dawn of national consciousness. Much has been written and much more has been said about the historical reasons behind and the political significance of this reform and also about the need for it in any democratic Government. To most of us, it is common knowledge that under the foreign Government there was invariably a conflict of interests, if not of ideals, between the administration and the people. The foreign Government were not altogether free from the fear that by making the Judiciary independent of the Executive, their grip on the people would weaken. The people under a foreign Government would, on the other hand, have every reason to suspect that, by the combination of the Judiciary and the Executive, what is administered to them is not justice according to Law but only the orders of the foreign Executive in the name of Law.

This fear and this suspicion cannot of course hold good under a National Government. The Executive and the Judiciary under such a Government are interested equally in serving the people by the preservation of peace or by the administration of justice, as the case may be, and their interests and objects are therefore identical. The political significance and the sentimental value attached to this reform is therefore a matter of historical interest only and it has vanished with the establishment of National Government in our country.

Need for Separation of Functions

However, taking a practical view of things, it is clear that there is need for the separation of functions. This follows from the fact that it is humanly impossible for the same person to discharge satisfactorily different functions with different points of view. I will make this point clearer. The Executive is concerned with action only, though it can and should act according to Law. The Judiciary, on the other hand, is not concerned with action itself but only with the task of seeing that it is done in accordance with Law. Naturally, these two will view as things from different angles. It follows that if the same person were to discharge the functions of the Executive and the Judiciary, he will find it very difficult or even impossible to reconcile these two different points of view. He will find it a great deal easier if asked to confine his work to one particular aspect only. It is in this respect that the separation of functions is a desirable reform by itself without reference to the sentimental and theoretical aspects of it.

Accordingly, the reform is of great importance in securing a measure of improvement in the administration itself, by, so to speak, compartmentalizing the functions of the Executive and the Judiciary, though not rigidly, and thereby enabling officers to specialise in the respective fields. Thus, for the Judiciary, we can select a special body of

men trained and qualified in Law and brought up in legal traditions, and place them under the High Court. This will certainly make for a good improvement in the administration.

Administration of Justice

I shall now deal with the apparent conflict between the Executive and the Judiciary which might hamper administration. There can really be no conflict because both these limbs of Government have identical interests, namely the preservation of law and order, the protection of the rights of the citizen, not to lead a life of licence injuring others but to lead a happy life, and the rendering of justice. In considering these interests, the angle of the Executive which is interested in the preservation of law and order may vary from that of the Judiciary, which is interested in the correct interpretation of the Law. But it is for the sovereign body, the Legislature, to solve the conflict by necessary amendments of the Law or even the Constitution.

As I said earlier, the reform will secure for us magistrates who will be properly qualified and trained to handle the administration of justice according to law. Hitherto our Magistrates or the great majority of them were not qualified in law and they did their work as a part-time job. I hasten to add, that in saying this, I do not for a moment belittle the great work done by our executive officers in the field of administration of Criminal Justice hitherto. These officers have been working under the greatest handicap. Whatever law they had to administer was learnt by them by experience and one is greatly struck with their satisfactory performance in spite of the inadequacy in equipment.

MADRAS

IN THE FOURTH YEAR OF FREEDOM

Latest Publication

Profusely Illustrated

Price Annas Eight only

Order your Copy now through your local Agent.

Copies can also be had, on payment of cost in advance, from :

The Director of Information and Publicity,
Fort St. George, Madras-9.

FOOD

Schemes (a), (b) and (c) are intended to provide irrigation facilities by lift irrigation wherever the existing natural facilities are not adequate. Oil engines and electric motor pump sets will be acquired on Government account by the Agricultural Department and hired out to ryots and also sold to them on an instalment payment system, wherever necessary. Application for pump sets should be made in the prescribed form to the District Agricultural Officer concerned.

Scheme (d) relates to the purchase by Government of tractors with and without bulldozers and hiring at cheap rates to agriculturists for ploughing and reclaiming waste lands. Tractors today are in great demand because of the high cost of work animals and the increased labour and maintenance charges. By the use of these tractors it is estimated that there will be a saving of about 75 per cent in the expenditure compared to manual labour. Since imports are restricted, the demands of the districts are met only partially at present. Applications for the supply of tractors on hire should be made to the District Agricultural Officer concerned. Allotments are made in the order of priority, preference being given to the cultivation of waste lands and for the reclamation of new areas.

Under Scheme (e) the ryots get a subsidy of Re. 1 per ton of compost made by them from the waste vegetable matter in pits dug by them under the supervision of the Agricultural Demonstrator.

Schemes (f) and (g) provide for the supply of chemical manures. Phosphatic manures are sold at half the cost price to the agriculturists, the resulting loss being borne by the Central and Provincial Governments. Ammonium sulphate whose potential for increasing production is fully recognized, is sold at cost price.

Large quantities of improved paddy and millet seeds will be distributed under scheme (h). These seeds which are raised in seed farms can be had from the local agricultural

depots subject to availability of stocks. Green manure seeds [Scheme (i)] are also distributed to districts by a similar procedure.

Under Scheme (j) the Government are arranging the supply of cart tyres, axles, G.C. sheets and other agricultural implements to the ryots through the existing agricultural depots at controlled rates, within the limited quota allotted by the Government of India. The work of the distribution of the fabricated agricultural implements is done by the Co-operative Societies selected for the purpose by the Registrar of Co-operative Societies.

2. *Irrigation Schemes.*—Special Engineering staff has been appointed to expedite the execution of irrigation schemes productive of results before the end of 1951.

3. *Well Subsidy Schemes.*—The Government have been actively exploiting various sources of water-supply to irrigate farm lands. One such measure which has proved highly successful is the Well Subsidy Scheme, whereby ryots are encouraged to dig new wells or repair old ones with Government providing initial loans later convertible into part subsidies on completion of the wells. Under the various Well Subsidy Schemes, a total amount of Rs. 6,78,50,000 has so far been paid out in respect of 1,88,674 new and old wells and new and old tanks in South Kanara and Malabar.

Other Measures.—The Government have also authorized the issue of vegetable seeds free to schools and land colonization societies. Seed depots have also been opened in Madras City. Local boards and municipal councils have been advised to cultivate food crops and vegetables in lands attached to schools, parks and other places. Fruit-growing is encouraged by the supply of plant manures; technical advice is also given. As part of the Grow More Food Plans, a two-year Fishery Scheme and Town Compost Scheme for the manufacture of compost from municipal rubbish and night-soil are also being formulated.

Food Production Drive

Emphasis on co-operative endeavour with a view to expediting the progress of the Grow More Food Campaign is a special feature of the latest fortnightly reports received from the Provinces and States in the Central Ministry of Agriculture. The Government of Saurashtra are encouraging the formation of joint-farming and better farming societies and a Co-operative Advisory Council has been constituted to foster and guide such activities in the State. In Madras, a Land Colonization Co-operative Society is being formed to take up the farming of land released by the Government from the reserved forest areas.

In Central Province an interesting scheme has been evolved by one of the *Janapadha Sabhas* on the rural composting work which in addition to helping in the preparation of compost solves the problem of village sanitation as well. Under the scheme, the Sabha undertakes to keep the village clean if its inhabitants contribute Rs. 150.

Labourers are employed to clean the *basti*. The refuse thus collected is composted into manure which becomes the property of the *Sabha* to be auctioned by them in due time. Thus the scheme becomes self-supporting.

Progress has also been reported in other aspects of the Grow More Food Campaign, namely, plant protection measures, reclamation of waste lands, sinking of wells and tube wells, preparation of compost, etc.

Plant Protection

The Government of United Provinces have opened eleven sub-stations for plant protection service in different parts of the Province to meet the cultivators' requirements. East Punjab has sanctioned an amount of Rs. 75,000 for the destruction of rats and jackals. A scheme for the destruction of monkeys has also been drawn up which provides for a reward of Rs. 2 per monkey killed or captured. Till

FOOD

December 15, 1949, about 400 monkeys had been shot in the Ambala district alone.

In Central Provinces batches of Home Guards have taken up destruction of pigs which are a menace in some of the districts of the Province. West Bengal reports that 4,000 acres of paddy crop in the Province were saved by the department's plant protection parties by the timely application of copper sulphate. Madhya Bharat has started a nucleus plant protection service and an initial sum of Rs. 15,000 has been sanctioned for the work. Five grain godowns are also to be set up in the Madhya Bharat Union and a sum of Rs. 2,85,000 has been sanctioned for the purpose.

[Irrigation Facilities

Against a target of 4,000 wells to be sunk during 1949, Bihar had completed by November a total of 3,843 wells. One hundred and twenty-nine minor irrigation works were also completed during the month. Fourteen tube-well borings were completed in the same month and 80 *rahat* pumps were completed.

In the East Punjab, re-habilitation of old wells which had gone into disuse because of lack of repairs, has been taken up and about 380 wells have already been put into use. By the middle of December 1,235 new wells were completed in the Province and 557 were under construction, against a target of 2,000 for the year 1949. Madras completed the construction of 226 wells during the fortnight ended December 15, 1949.

A three-year scheme was launched last year by the Government of Mysore for providing electric power for irrigation purposes and during the last year, electricity was provided to 100 irrigation pumps. Three hundred wells have been dug under the wells subsidy scheme and about 770 minor tanks are under construction.

In Travancore and Cochin Union where recently drought threatened the crops, immediate supply of irrigation water to the area affected was arranged and the Government issued 15 pump sets to the agriculturists on hire-purchase basis.

In Mysore, an approximate area of 40,000 acres has been put under double cropping and the Government had made special arrangements for procurement of groundnut oil cakes in order to distribute them to the cultivators for manuring the paddy. In Orissa, a bonus of Rs. 25 per acre has been offered for reclamation of waste land. A number of people belonging to landless tribes have been settled in the Province on newly reclaimed lands.

In Madras, during the fortnight ended December 15, 1949, an area of 1,863 acres of waste land was assigned for cultivation by the Government. Bihar has, during the last eight months from April to November, reclaimed and put under cultivation an area of 24,000 acres of land.

The Government of U.P. have liberalized the rules regarding the grant of *taccavi* loans authorizing the district officers to sanction them. A scheme for the reclamation of 8,000 acres of *usar* land in the Province has been sanctioned. Since the middle of November, an additional area of 1,000 acres of fallow land has been brought under cultivation in the Province.

In East Punjab, up to the end of October 1949, about 6,459 acres of land were reclaimed and 5,763 acres mechanically cultivated. The total additional yield is estimated at 3,535 tons.

Compost Making

In the East Punjab, where rural compost making is obligatory under the East Punjab Farm Yard Manure Act, 1949, 182,970 tons of compost were prepared. The Government have also sanctioned Rs. 2,12,000 as loan for urban compost work and 18 motor trucks have been provided for transporting the compost to rural areas. Distribution of pure seeds is proceeding in the Province and about 60,000 maunds of C. 591 and C. 518 varieties of wheat, and one lakh maunds of commercial pure seed were distributed.

The Government of West Bengal distributed last year 82,835 tons of manure and fertilisers comprising of village and town compost, bonemeal, oil-cakes and sulphate of ammonia.

Why Taxes ?

1. Taxes pay for the Judiciary and the Police, essential to the preservation of peace, order and tranquillity.
2. Taxes pay for all the social services performed by the modern welfare state.
3. Taxes pay for the development of Agriculture, Forest, Industries, Road and Communications.
4. Taxes subsidise the prices of necessities like foodgrains and foodstuff.
5. Taxes discourage excessive expenditure which drives up prices.
6. Taxes tend to level up incomes.

Reform Towards Progress

The generally satisfactory manner in which Criminal Law has been administered so far by the Executive does deserve appreciation. There are still, among these officers, magistrates who can beat hollow many of the legally qualified and trained men. It will be very easy for our new magistrates to be independent and to be able to face the most astute lawyer, but their predecessors had none of their advantages and therefore deserve praise for what they were able to do in these directions with all their limitations. I may say that we have brought about this reform of separation of functions not exactly because people are dissatisfied with their work but because on grounds of general policy and in order to effect an improvement in the administration in the manner referred to by me earlier. We have decided to put an end to the inappropriate combination of the same person being the judge, the prosecutor and the police.

So much for the reason behind the introduction of this reform. The details of the Madras Scheme are now fairly well known to all. Within the four corners of the existing Criminal Procedure Code and the various Acts, we have been able to design the scheme in such a way that when it comes to a question of trying a case and punishing a man for an offence, the work will be done by a qualified magistrate free from the executive influence or bias and enjoying the same independence of

action as a District Munsif handling civil cases. When it is a case of maintaining Law and Order, such as by ordering the dispersal of an unruly mob, or of preventing crime, as by issuing prohibitory orders or of doing an administrative task like granting a licence under the Arms Act, the functions not being Judicial, will be exercised by the Executive with the help of the police wherever necessary as hitherto before. By this arrangement we reconcile the need to provide safeguards for peace and order with the need to secure the reign of law and the liberty of the individual.

Happy Choice of Inaugural Date

I will next deal with the progress we have made so far with the introduction of this wholesome reform. We first introduced it on the 2nd of October last year in two districts of our State, North Arcot and Chingleput. The date chosen for the first introduction was a happy choice indeed. Being the birthday of the Father of our Nation it had a great meaning and special significance and it is not mere sentiment that compels everyone of us to the firm belief that anything begun on that date will be assured of every success. This, I am happy to say, has been proved twice already, firstly, in the case of Prohibition which, I maintain and every right-thinking citizen will maintain, despite interested scoffers, has been a great success from the point of view of benefit to the people,

Corruption Among Government Servants

During the month of May 1950, corruption among Government servants was brought to notice against 335 persons including those against whom proceedings were pending at the end of the previous month. Of these, 19 persons were let off as charges against them were not proved and proceedings against 303 persons were pending at the end of the month. Corruption was successfully detected in the case of the remaining 13 persons and they were suitably punished. The names and designations of those 13 persons who were all awarded severe punishments are as follows:—

I

Cases dealt with by the Tribunal.

A. Gazetted Officers—

S. Jaganathaswami Patro, Assistant Engineer. (Dismissed.)

B. Non-Gazetted Officers—

C. Balakrishna Naidu, Deputy Inspector of Schools, Polur Range. (Compulsorily retired.)

II

Cases dealt with by departmental authorities.

A. Non-Gazetted Officers—

P. Subbarayadu and T. Mariah.	Constables, Cuddapah District	..	} Dismissed.
Kannan and Subramanian	Constables, North Arcot District	..	
Peramiah Pillai and Jainulabuddin.	Head Constables, South Arcot District	..	
Pakkirisamy, Ramakrishnan and D. Samuel.	Prohibition Guards, Ramanathapuram District.	..	} Discharged from service.
M. Venkata Rao	Petty Officer, Cuddapah District	..	
S. Subbanna	Prohibition Guard, Cuddapah District	..	

B. Inferior Servants—Nil.

and secondly in the case of this reform that is being effected without extra expenditure to the State.

The Scheme was extended to four more districts on the 1st of January this year and today it is in force in half of this State. Every district is eager to have this reform as early as possible and Government are alive to this desire of the people, and are determined to complete the introduction of this Scheme throughout the State as early as possible. The matter is, as all will realise, not quite simple, involving as it does a great change in the administrative set-up. The change has to be made with care and without causing undue dislocation or extra cost to the exchequer. Multifarious details have to be worked out and given effect to. All these things will necessarily take time and will have to be done in a systematic way. We are therefore taking up the districts in convenient batches.

Scheme has Proved Success

I shall take this opportunity of giving my own impressions as to how the scheme has worked so far. The scheme is quite a novel one and is based, as it is, on executive orders only; and naturally, Government were anxious to see how far in actual practice it will work. I am happy to say that actual experience has shown that the Scheme has been working very well indeed. From official and unofficial information at the hands of the Government, I can say that the Scheme is a great success in the sense that it has brought satisfaction to the people at large and a thorough change of atmosphere in criminal courts. To the accused, of course, the Scheme has brought very great relief because he will not be having the depressing thought that the prosecutor especially in a police case will always have the upper hand and that his defence may not be fruitful.

To the litigant, it is a blessing because he has now a qualified magistrate to handle his case and a magistrate who can be expected to be at his job every day at a fixed station from 11 to 5. To the magistrates, the Scheme has brought substantial relief in that they now feel confident that their judicial work is not to be reviewed by the District Magistrate in consultation with the Police Superintendent. To the lawyers, of course, it has brought great advantages, firstly in providing for them a number of places under the State and secondly, in their being enabled to deal with questions of law before magistrates with greater facility than was perhaps possible before the previous magistracy.

In introducing this reform, Government have as their object only the happiness and the well-being of the people at large. They have every reason to feel both from the very nature of the reform and from the success of its working in the other districts, that their hopes will not be in vain.

(From the speech of Hon. Sri M. Bhaktavatsalam, Minister for Public Works, inaugurating the Scheme of the Separation of the Judiciary in Devakottai, Ramanathapuram District.)

Opening of Herbarium

The Government have sanctioned the opening of a Herbarium for the College and School of Indigenous Medicine in the vacant site in Arambakkam village lying north of Poonamallee High Road.

Notorious Gang Rounded Up

Successful investigation of crime by the Police was for a long time the result of the persistent efforts of Police officers to trace the criminals responsible for occurrences reported from time to time. They had no scientific system under which police records were classified, records to which investigating officers could have reference. Such a system was evolved in recent times by which information and records relating to crime and criminals in each district were filed in the District Intelligence Bureau in a scientific manner. These records maintained at the headquarters of each district are immensely helpful in the successful detection of cases.

Recently the use of these records enabled a Police Officer of Tiruchirappalli District to unearth successfully a series of house-breaking cases. The same gang of thieves were responsible for all these cases, and they had been for some time operating successfully in several districts in South India.

During the first half of 1948, several cases of burglaries in different techniques were reported in Tiruchirappalli and in the adjacent districts of Tanjore, Ramanathapuram, Madhurai South, Salem, Chingleput and North Arcot. The nature of the offences showed this was the work of the same gang but no useful information was available.

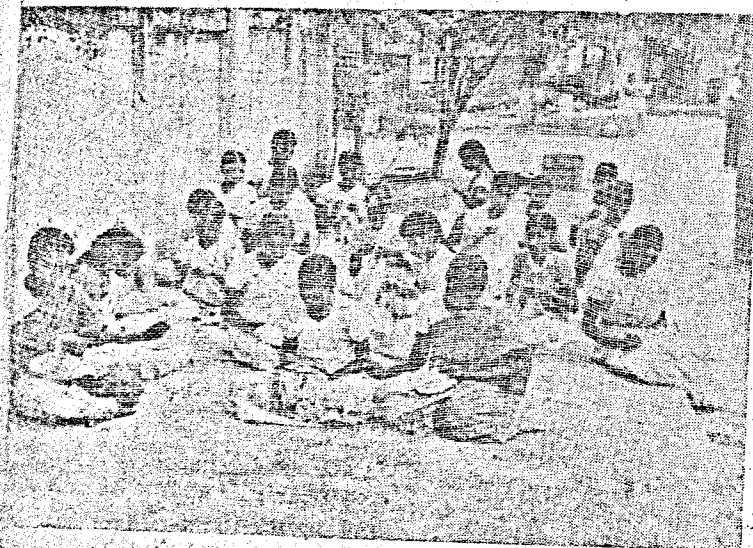
During the course of investigation of the burglaries that occurred in Tiruchirappalli City, one Narayanan, a Vaduvarpatti Korava, was arrested and the statement recorded from him gave a clue to the activities of the gang in other districts as well. On the basis of this information, the Inspector of the Crime Branch, Tiruchirappalli, contacted the District Intelligence Bureau of other districts, made a careful study of the burglaries committed in those districts and came to the conclusion that a number of them were the work of the same gang; 45 offences were found to have been committed by this gang in various districts.

The Inspector, assisted by a special party of two Sub-Inspectors, four Head Constables and eight Constables, worked with commendable tact and ability. The party contacted several persons who had actually seen the accused in several places where the thefts had taken place and others who had witnessed the sale of the stolen property. Vigorous searches were instituted in various places and stolen properties were recovered either from the accused or the witnesses. Finally, eight persons were apprehended—and one of them was taken as an approver. Property recovered was worth about Rs. 5,000.

A case was put up against them in Tiruchirappalli Central Crime Station and after a protracted enquiry, the Assistant Sessions Judge, Tiruchirappalli, convicted six of them and sentenced them to undergo rigorous imprisonment for three years each. The Inspector's ability in detection and promptitude in investigation and the work of the two Sub-Inspectors and Head Constables (who belonged to Tiruchirappalli District) were highly commended by the Sessions Judge.

Amelioration Aims At Absorption

By SRI V. BASHYAM IYENGAR, Honorary Director of Harijan Welfare



At a Harijan Hostel sewing and embroidery classes form a favourite pastime for the girls

Certain misconceptions appear to exist in the minds of some of the public regarding the ameliorative work carried on by the Harijan Welfare Department of the Government for the benefit of the "Scheduled Classes", called Harijans, and the other "Eligible" Communities. One or two of the more important of them deserve to be clarified and refuted.

It is too often asked, even by persons who ought to know better, how the State, which is avowedly secular can, in the face of the Article in its Constitution that it "shall not discriminate against any citizen on grounds only of religion, race, caste, sect, place of birth or any of them", provide special facilities for certain sections only of its subjects. This question seems to involve

No girl is too young for kitchen duty! Here they learn by actually helping in the mess chores



ignorance of one of the essential functions of the State. It is an accepted principle that the State is bound to see that no specific class of its subjects is too far behind the others in the average level and standard of knowledge, power or economic condition for want of reasonable facilities and opportunities. No one who has any knowledge of the cruel practice of untouchability which prevailed in this land, until it was legally put an end to by the Constitution and the harrowing effects left by it on its unfortunate victims in all branches of life, will deny their right for special help until such time as they attain parity with the other classes and are in a position to take their chances with them on equal terms.

This right is explicitly recognised in Article 46 of the Constitution which provides: "The State shall promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the Scheduled Castes and the Scheduled Tribes, and shall protect them from social injustice and all forms of exploitation." The charge that the facilities provided by the Harijan Welfare Department for the amelioration of the condition of the Harijans and other under-privileged classes offend against the idea of a secular State or the Constitution and is, therefore, quite untenable.

Towards Union with Society

Another charge levelled against the Government in regard to the work of the Harijan Welfare Department is that such work for a particular class will lead to "their permanent separation from the rest of the Community." This criticism is hardly intelligible. Why should the ameliorative work of the Government to uplift the Harijan community, which now occupies such a low position in the social, economic and educational spheres, have the effect of segregating it from the rest of the society of which it forms a part? Indeed, the effect must just be the opposite. The ameliorative work of the Government would naturally raise the status and position of its members and enable them to coalesce with the others and get absorbed in the society.

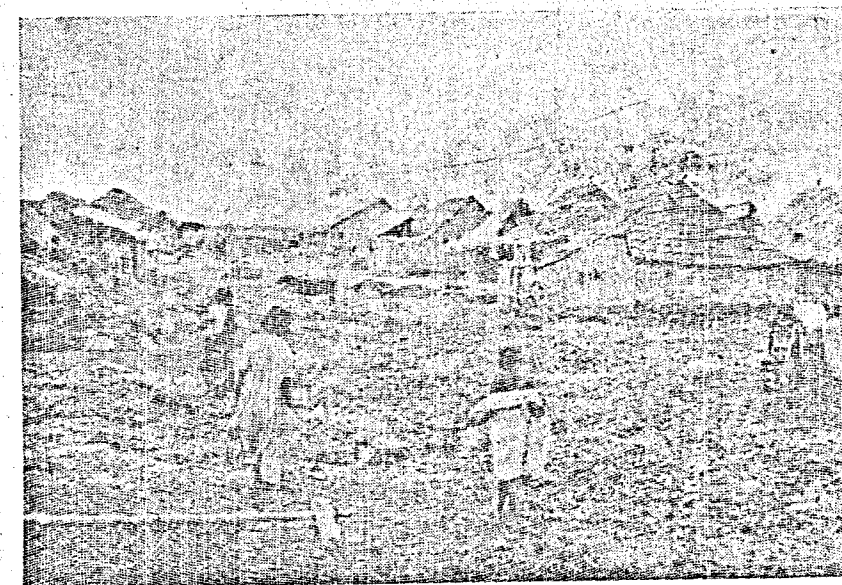
Ameliorative work for the Harijans appears to be bare justice and it is difficult to conceive how it can lead to any baneful effects on that class or on the society. After all, the Harijan Welfare Department is only temporary and will be wound up when its object of uplifting the Harijans and bringing them to a level with the other classes of the society is substantially achieved. To say that the Harijan community should receive no special attention is like saying that a person who is sub-normal in health should have no special treatment and only get the treatment accorded to normal individuals.

The Harijan Welfare Department is intended to help not only the Harijans but also other under-privileged classes like the Hill-tribes, Aborigines, Sugalis, Kallars, etc., and it behoves all well-meaning and patriotic people to give it their full support in the interests of the society as a whole.

Lands to Harijans and Agricultural Labourers in Tanjore

With a view to providing suitable house-sites to Harijans and agricultural labourers in Tanjore District, the Government, on the recommendation of the Collector, have sanctioned a special staff for the purpose of enquiry and inspection of land suitable for occupation.

The Harijans and agricultural labourers in the district of Tanjore are either put up in *Manekats* belonging to the mirasdars of Tanjore or in Government poramboke lands. It was found in December 1948 that the total area of the Government poramboke land occupied by the families of Harijans and agricultural labourers was about 710 acres and that a further extent of 1,825 acres of Government land suitable for house-sites, was available for assignment to these labourers. The Government have ordered in March 1949 that 710 acres of land should be assigned to the occupants and that the remaining 1,825 acres should be assigned to the labourers for construction of houses at the



A typical chert in Madras City. Slum clearance work is an important feature of the Harijan Uplift programme (left)

New habits for old! At Swantamrapuram, a Harijan Colony, every housewife works to keep the surroundings clean and tidy.

rate of three cents per family. But due to certain difficulties confronted in giving effect to these orders no appreciable progress has been made in the matter of assignment of these sites. Hence it was felt that a special staff should be appointed to give effect to these proposals.

The Government have ordered that wherever suitable Government lands are not available, house-sites should be provided for Harijans and agricultural labourers by acquisition of private lands.

Sales-Tax on Mill Cloth

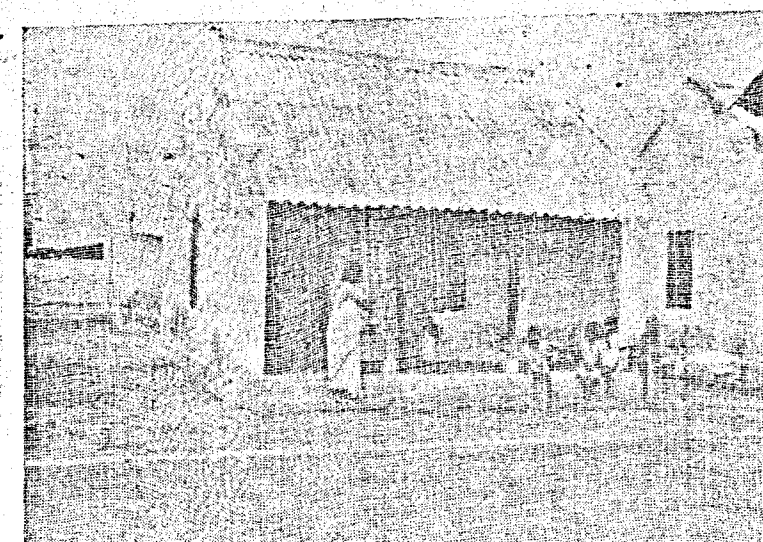
The Government have issued a notification exempting from the payment of Sales Tax the sale of cloth purchased by the regular Representative Buyer-cum-wholesale consignee from the two-thirds production of the mills which are offered for controlled procurement. This notification shall be deemed to have come into force from 1st June 1950.

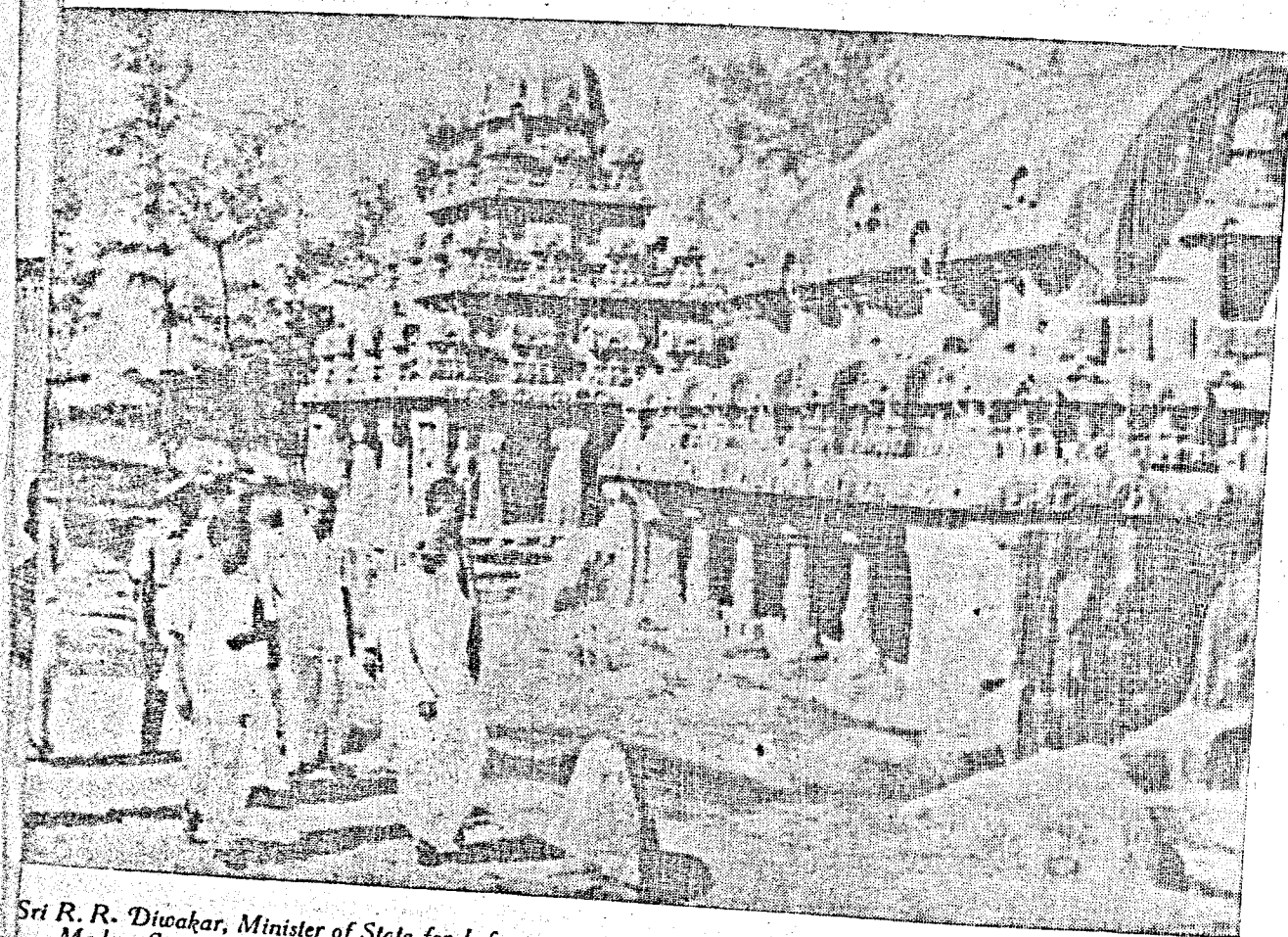
Rights of Humanity

Swaraj is a meaningless term, if we desire to keep a fifth of India under perpetual subjection, and deliberately deny to them the fruits of national culture. We are seeking the aid of God in this great purifying movement, but we deny to the most deserving among His creatures the rights of humanity. Inhuman ourselves, we may not plead before the throne for deliverance from the inhumanity of others.

I would far rather that Hinduism died than that untouchability lived.

—GANDHIJI





Sri R. R. Diwakar, Minister of State for Information and Broadcasting, Government of India, recently visited Madras State. Here Sri Diwakar is seen admiring the stone rathas and sculptures at Mahabalipuram.



PROHIBITION

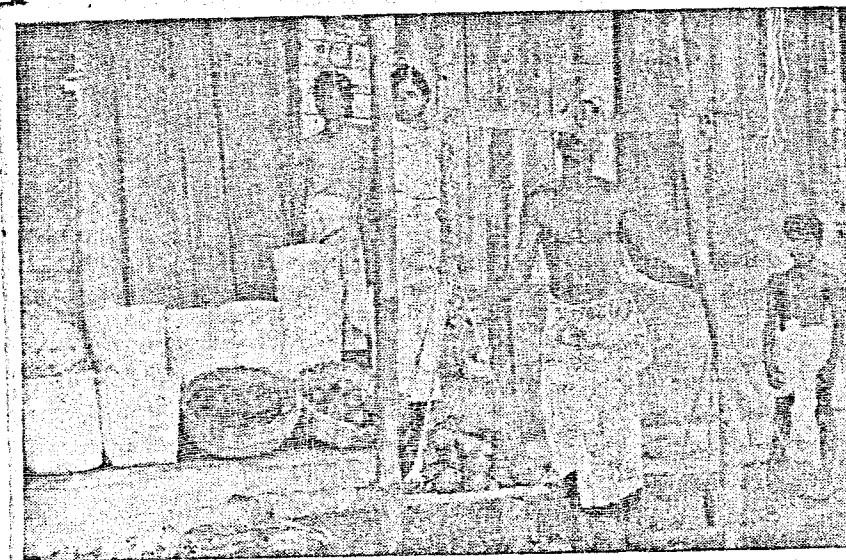
19

MADRAS INFORMATION

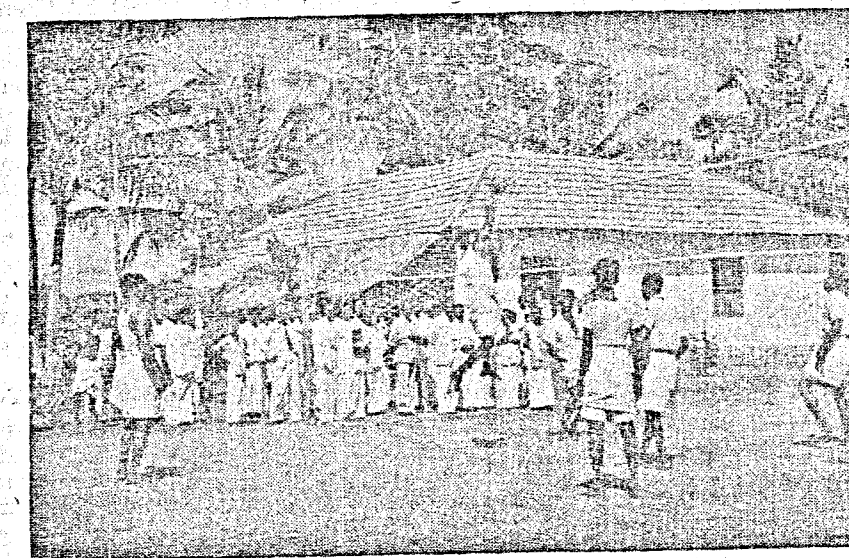
Sober, Healthy and Happy

On October 2, 1948, Gandhi Jayanti, total prohibition in all districts was introduced in Madras State. This reform, which had so stout an advocate as Gandhiji, has been acclaimed as a monument to the Mahatma. Pictures illustrate the sobering influence of steady work, as palm gur manufacture, and the invigorating exercise of games and sports, which replace the drunken brawls of the "wet" days.

Manufacture and marketing of palm gur jaggery is a thriving industry organised as an ameliorative measure for ex-tappers



A vigorous game of volley-ball can work wonders to take the villager's mind off drink. Such games have been introduced everywhere and are immensely popular.



Sports form a healthy counter-attraction in the Prohibition campaign. Wrestling and shot-put helps to build strong bodies, unlike the drink evil which brought about physical ruin



Happier Homes for Healthy Society

By Mrs. PARLJATHAM NAIDU, Women's Welfare Officer

Welfare is a word we often hear nowadays. People talk of Welfare Service, Welfare State and so on. Quite appropriately too; since this means that it is being more and more realized that whatever may be the different activities undertaken, the ultimate object of all right kinds of endeavour is Welfare, whether of the individual, group or the State. Therefore "Welfare Service" is a wise term, indeed as comprehensive and varied as human problems themselves are. Welfare services in fact affect human problems and human relationships at several points. In other words, the problems towards which welfare services are directed have first of all to be thoroughly observed, studied, the causes properly analysed and suitable remedies prescribed. That means the Welfare Services have to be necessarily planned and directed on scientific lines and as such, have to be distinguished from charitable undertakings. The latter, mind you, are very necessary and have still an important part to play in our country, but nevertheless must be distinguished from welfare services as such, undertaken in the larger interests of society and State.

For instance, a destitute home in a particular group or an orphanage for a particular community, however commendable, have still to be distinguished from say, Harijan Welfare, Women's Welfare and Children's Aid. Obviously—for these are matters vitally connected with the well-being of the State as a whole. They are nation building projects. Their results on 'society' are assured, though they can be neither immediate nor spectacular. Such Welfare Services carried on scientific lines aim to bring about a healthy change in society, and transcend all barriers of caste or creed, narrow or selfish groups: larger interests, well-being of wider groups—these alone are the criteria of a well-planned Welfare Service.

Planning Starts from the Home

And that brings me to the other important fact. We in our country have come to realize the value of planning

in life. No undertaking will achieve the desired results unless it is properly studied and planned in advance. Planning is good; nay, it is very essential. But while planning is good and absolutely necessary at the top, we have to plan Welfare Services right from the very bottom. Every home is a vital unit in society; a cell in the body State. Unless every householder and housewife is helped to plan home work and adequate facilities are provided within reasonable and possible limits, there can be no healthy Society. It is only when this assertion is given and every individual in each family is made to realize his or her responsibilities to each other within the family and to the rest in the neighbourhood and the State—then and only then can we hope to have a healthy, contented and understanding society.

It is of course not possible for any of the Welfare Services to undertake to bring about radical changes in all families and hold out alluring promises. That is never contemplated when we talk of planning Welfare Services from the bottom. Taking present circumstances into consideration, the Welfare Service agents can make themselves useful to the families, render such services as come within their scope, hear what they have to say, sympathise with them and give such relief and advice as is possible and explain Government's measures undertaken on their behalf. I can emphatically say with my experience that such contacts will go a long way to bring about a better understanding and happy relationship between the individuals and the State, especially when the former come to believe that the State is earnestly interested in the welfare of the families.

Towards Community Consciousness

That is exactly the reason why our Government have felt that since the modern State has to take up their Welfare Services they should start doing it from the bottom—namely, forming Welfare and Community Services; that is, contacting each family with a view to render such assistance and bringing together the families in the neighbourhood in order to develop community consciousness. Of course this is a big job, but a beginning has been made through the Department of Women's Welfare of Madras State. Owing to the peculiar conditions governing life in our country, the approach is made through women and for work like this women workers, specially trained for the purpose, are best suited as seen from the experience in Western countries. It is only to this extent can this be called the Department of Women's Welfare, while actually the scope of the work is wider than is ordinarily implied in the term "Women's Welfare."

Let me now briefly explain how the family welfare and community services are being done by trained staff of the Department.

Each family in the village is regularly contacted by them:—

(1) to give sound advice on all matters and difficult problems brought forth by each family;

STENCIL, BLOCK AND SPRAY PRINTING ON KHADI



The three main techniques of printing on khadi are stencil printing (top), block printing (centre) and spray printing (bottom). Exquisite and elaborate designs are created in this fascinating industry

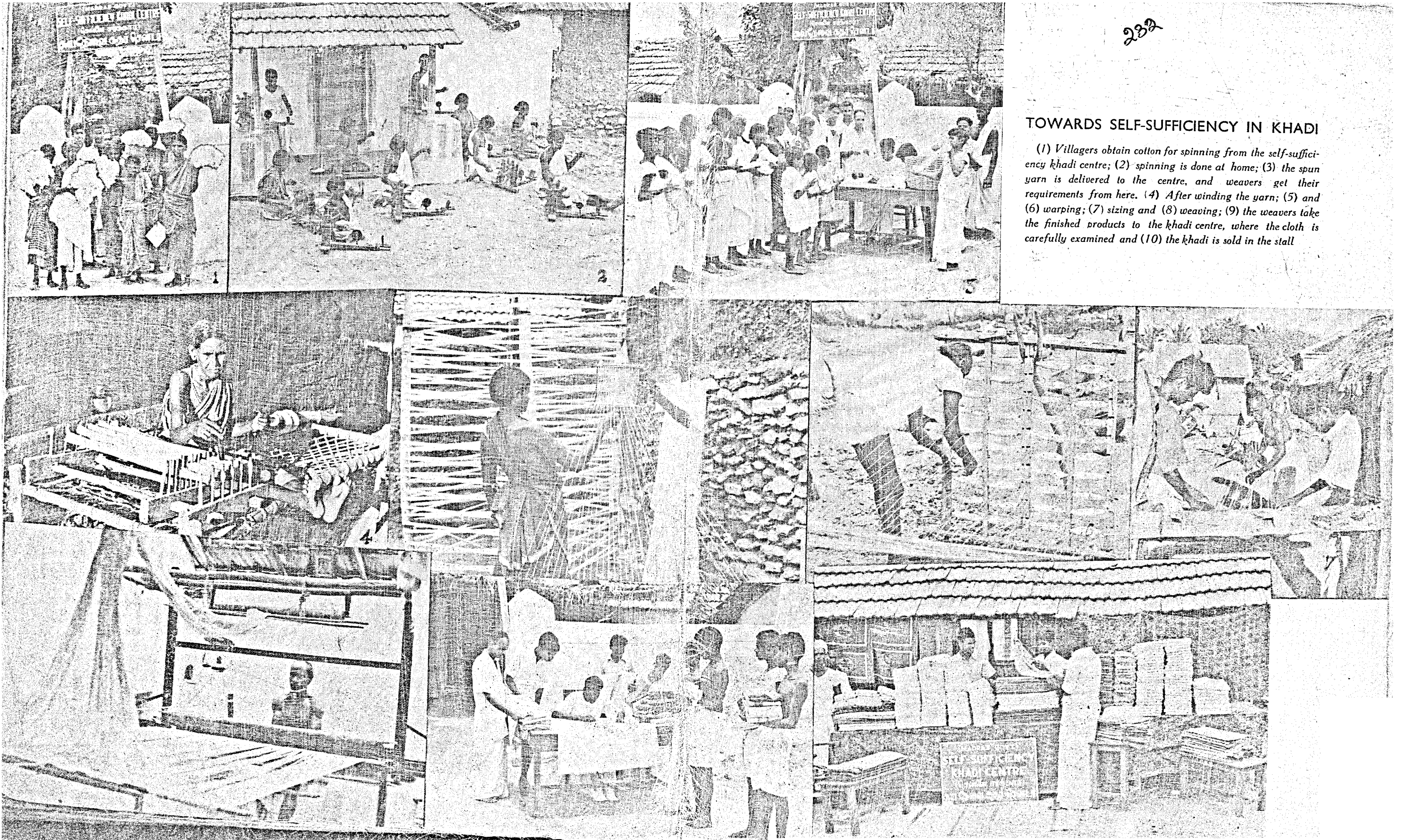
A finished specimen of stencil printing is shown at top right

Dr. P. V. Chetiyar, Mayor of Madras, opens a Women's Welfare Centre in the City



TOWARDS SELF-SUFFICIENCY IN KHADI

(1) Villagers obtain cotton for spinning from the self-sufficiency khadi centre; (2) spinning is done at home; (3) the spun yarn is delivered to the centre, and weavers get their requirements from here. (4) After winding the yarn; (5) and (6) warping; (7) sizing and (8) weaving; (9) the weavers take the finished products to the khadi centre, where the cloth is carefully examined and (10) the khadi is sold in the stall



23

WOMEN'S WELFARE

DYEING OF KHADI

Left: The cloth is bleached in boilers with soda

Right: Washing the cloth in the cement troughs

Left: The cloth is dyed in the vats, between rollers

Right: A section of the printing room

- (2) to try and secure employment and help to earn a supplementary income,
- (3) to help in regard to nutrition, cooking, invalid diet, gardening, poultry; crafts, etc., and
- (4) to render assistance in regard to health, hygiene, maternity, child-care, nursing, etc.

Then the field staff in the course of their house visits render such assistance to the families and tackle such situations as may arise with a view to bring about harmony, happier relationship and a general healthy atmosphere both in the families and neighbourhood. Many a house can be made happy and family harmony and family relationship kept intact, and even strengthened by timely assistance and judicial advice. Of course this has to be done with great tact. This is how family welfare is conducted by the Welfare Workers who also maintain case records and family survey registers.

Service Centres for Women and Children

As regards community service centres, these are conducted by every worker. Here Balwadi classes for children under five are run in the mornings and in the afternoons the women of the area gather for free exchange of ideas and experience. Facilities for instruction are provided in Social Education which includes citizenship training, community behaviour, adult education and literacy. Besides, instruction is also imparted in leisure-time activities and subsidiary industries to enable the poor to earn a small income. There are facilities for recreation, music, folk-lore, study, lectures by specialists, practical demonstrations and crafts; maternity and health clinics are attached. There are now altogether 30 centres with 9,090 women attending, i.e., at the rate of 30 per cent. That means these families have also been covered by the respective worker. It will be realised what a stupendous task this is and how much depends upon the careful selection and special training of candidates for such field work. One year's intensive training in basic and special subjects are given to these workers and four months additional training to the midwives.

Helping Deserted and Destitute Women

We now come to another important organ of the work, namely, the preventive aspect of welfare work. Prevention is certainly much better than cure. A great deal of avoidable suffering and social evil can be easily eliminated if only we prepare ourselves in advance. Owing to certain important conditions prevailing in our land, and because of the break-up of joint family system, the number of poor but respectable women absolutely stranded with their children requiring relief, are increasing; particularly the incidence of desertions of wives is very great. The Government Service Home run by the Department of Women's Welfare is intended for such cases of deserted wives and helpless widows who have nobody to take care of them, and who are on the point of either committing suicide or going astray. The story of many an inmate is pathetic as our records will show and one feels such cases are not only a liability but also a charge on Society.

Every application for admission is carefully examined by the field worker and is admitted if found deserving.

Special Custodians

Women are special custodians of all that is pure and religious in life. Conservative by nature, if they are slow to shed superstitious habits, they are also slow to give up all that is pure and noble in life.

I am uncompromising in the matter of women's rights. In my opinion she should labour under no legal disability not suffered by men. I should treat the daughters and sons on a footing of perfect equality.

She can run the race, but she will not rise to the great heights she is capable of by mimicking man. She has to be the complement of man. I believe in the proper education of women. But I do believe that woman will not make her contribution to the world by mimicking or running a race with men.

—GANDHIJI

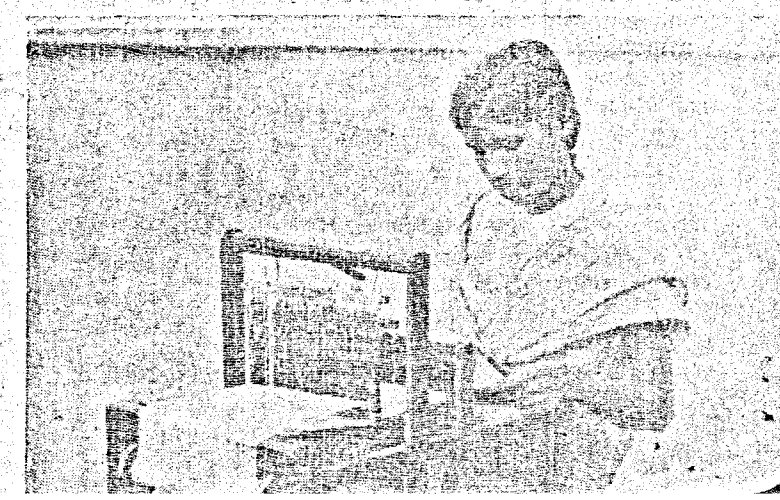
Children of such women are all taken in. As such misfortunes generally occur between the ages of 18 to 20, this age limit is fixed for admission. Period of stay in the Home is three years, though in individual cases it would be shortened. During their stay they are given general education and special training in one of the vocations for which they are selected in the second year after careful observation. The vocations offered are teacher's training, midwifery, Welfare Workers, Balasevikas, Housekeepers and Tailoring.

Community Life in the Home

Management within the Home is by the inmates themselves and on democratic lines. The value of election of

(Continued on page 37)

At a Women's Welfare Centre one member operates a small handloom



Leprosy and the Social Worker

By SRI T. N. JAGADISAN, Honorary Secretary, Hind Kusht Nivaran Sangh, Madras State Branch

It is coming increasingly to be realised that all medical work is in a large sense social work and that a doctor's effort when unaided by the social worker is not complete. With leprosy this is ever more true. For, owing to some unfortunate error that has persisted through the centuries, leprosy has been regarded, and is still largely regarded, not only as a disease but as a social stigma. In the fight against leprosy therefore, we are up against a number of complex problems that are absent while dealing with other diseases and that can only be solved by efforts based on neighbourly love and the oneness of the human family. It is a pity that many fine social workers labouring in the many fields of social service should be ignorant of true facts of leprosy. My first word to social workers therefore is: "Learn the facts about leprosy, release yourself from the usual fear and horror concerning leprosy."

Let me now pass on to describe various kinds of social service connected with leprosy.

Educational Work

Even in my first paragraph I have indicated the need of the social worker educating himself or herself in the facts of leprosy. If you are interested in helping actively in the leprosy campaign you should visit leprosy clinics, hospitals, families of leprosy patients and familiarise yourself with the human side of leprosy patients and become more intimate with the problems of leprosy. You would do well particularly to study the social conditions and personal histories of patients. All this will enable you to overcome the fear of leprosy and also to understand the human being who is afflicted with leprosy, for as a social worker you are dealing not with a disease but with a person.

One of the urgent needs of the leprosy patient is that he should cease to be regarded as one suffering from a strange calamity which places him without the camp of the ordinary citizen. As a social worker one of your first duties is, therefore, to popularise certain basic facts about leprosy.

Certain Basic Facts

1. Leprosy is an ordinary disease and not a particular visitation of Divine displeasure.
2. It is no more of a disgrace to get leprosy than to contract other diseases like tuberculosis, typhoid or pneumonia.
3. Leprosy is not hereditary. Like tuberculosis it may run in families because of close contact.
4. Leprosy is not venereal in origin.
5. About seventy per cent of cases in India are non-infective. These should be free to go about in life without restrictions.
6. The infective power of leprosy is low, but the infective cases are a particular danger to infants and children.
7. The leprosy patient does not as a rule require asylum nor an almshouse, he does need treatment, human care and sometimes hospitalisation. But as far as possible we

must keep him or return him to a life of usefulness and self-respect.

8. Leprosy can be prevented by elementary precautions, and unduly harsh measures for the segregation of infective persons with leprosy are not necessary.

9. The general public can perform a major part in the elimination of leprosy in India by adopting the following attitude towards leprosy:—

(a) Not being alarmed when they discover the disease in a house or family.

(b) If a case is declared infective, by seeing that the case observes elementary precautions, viz., (1) sleeping away from infants and children; (2) keeping all bedding, mats and personal utensils apart from those of the rest of the family. The words "isolation" and "segregation" suggest to people's minds the rigour almost of banishment. But "isolation" with regard to leprosy means avoidance of close contact between the infective cases and healthy individuals, particularly infants and children.

(c) Securing the best possible medical advice when cases of leprosy are discovered in a family or community. In many cases early treatment gives the greatest hope of complete recovery without leaving any disfiguring marks.

Protecting Children of Leprosy Patients

It is now recognised by almost all authorities on leprosy that the commonest way by which leprosy is spread is by the infection of children that are thrown into close and prolonged contact with infective cases. The infection occurs in childhood but the disease manifests itself only as the child becomes older. As leprosy is not hereditary, it has now been proved by experience that children separated from their infective parents at an early age escape the disease. The separation of children from infective cases is, therefore, a field of social work of the highest importance. How shall we achieve this? The Mission Leprosy Homes have as an adjunct to their institutions what they call a "healthy children's home." In the opinion of some workers this practice has the disadvantage of heavily soaking into the mind of the child the consciousness that it belongs to a stigmatised class.

If this arrangement is to be avoided we should educate the general orphanages or children's homes into taking such children of leprosy patients as are pronounced by medical authorities to be free of any symptoms of disease. Here again prejudice rears up its ugly head. Sometimes even fine social workers shied at admitting a healthy child of a leprosy patient in a children's home and evaded the request for admission. Prejudice is not easily conquered, especially an age-old prejudice. Apart from taking the children of leprosy patients away from them and putting them in orphanages or children's homes, we have to teach the leprosy patient what is called "home segregation". For, in a country where leprosy is one of the common diseases, how can we build children's homes in such large numbers as will be required, or how can we compel patients

to send away their children from themselves? For the leprosy patient loves his children no less passionately than others. If we teach him a reasonable way of keeping himself near his children and yet apart from him for purposes of prevention, then there is a reasonable chance of our getting the patient's co-operation.

"How to get the patient's co-operation with regard to the protection of children?"—This is the crux of the preventive problem in leprosy. If we train sympathetic social workers to do home visiting and to advise the patient to keep a detached room for himself and to keep his bedding, utensils, etc., apart and not to touch children whether they be his own or others, then we may expect some measure of success in prevention. The first problem is to find the workers. The second one is to overcome the difficulties of our poor housing conditions. In our towns and villages how many are there who could afford a separate room for oneself? Home isolation will, therefore, not bring its full benefit until our housing conditions are better. But the message concerning the supreme need of protecting children from infective cases should go forth, notwithstanding the present poor housing conditions.

Social Readjustment of Families

As leprosy is regarded as the greatest social calamity that can befall a person, the families of leprosy patients and their children become involved in a tangle of difficulties in such things as marriage, education and employment. Here is a world of opportunity to an understanding social worker to bring into play his tact, his skill and his power of challenge to society on behalf of an oppressed section. It is all important that you must go to the family of the patient not in a spirit of complacency but as a member of it. Then success will attend your effort and you will surely do at least one valuable service—you will lift the patient and his family from the utter abandoned state that has been the lot of the leprosy patient and his people. Quite a number of girls with a touch of mild leprosy have become discarded wives. Social workers must fight their battle and redress the wrong done to them.

A common and a very distressing misfortune is that those who are non-infective and have a clear certificate from a recognised medical authority, are often thrown out of employment or are unable to secure employment. In India, where nearly 80 per cent of the cases are non-

infective, this blind and superstitious attitude to them results in a colossal wastage of human effort and human lives. The continued employment of the patient ensures his self-respect and a desire to keep up in life. The absence of employment makes him disheartened and he becomes negligent of himself and develops deformity and disability. The social worker must fight the battle of the "negatives" or the "disease arrested" patients and enable them to be useful citizens.

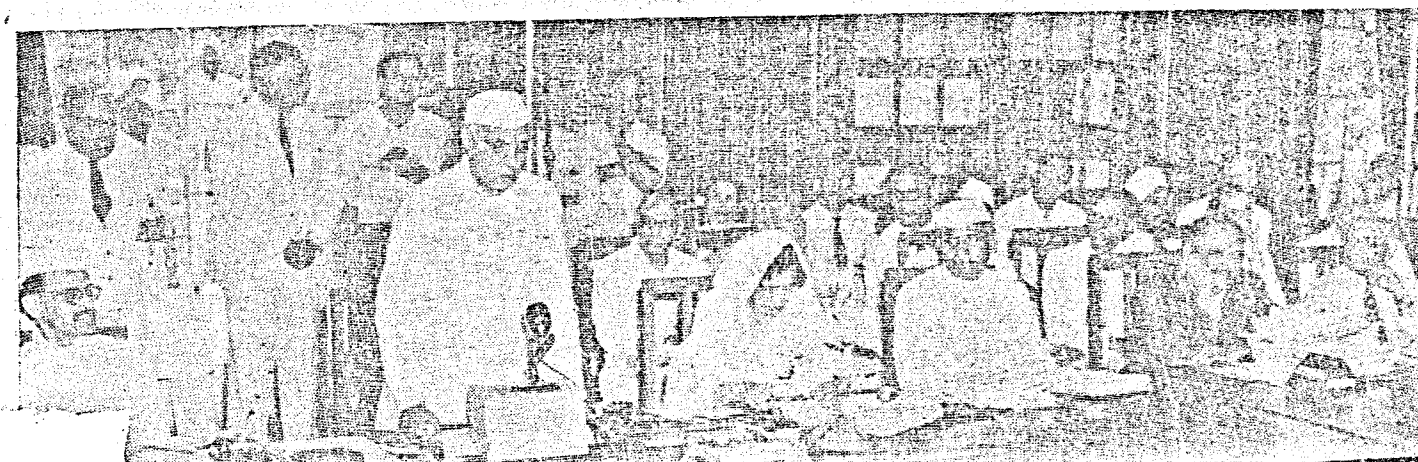
Social Assistance to Patients

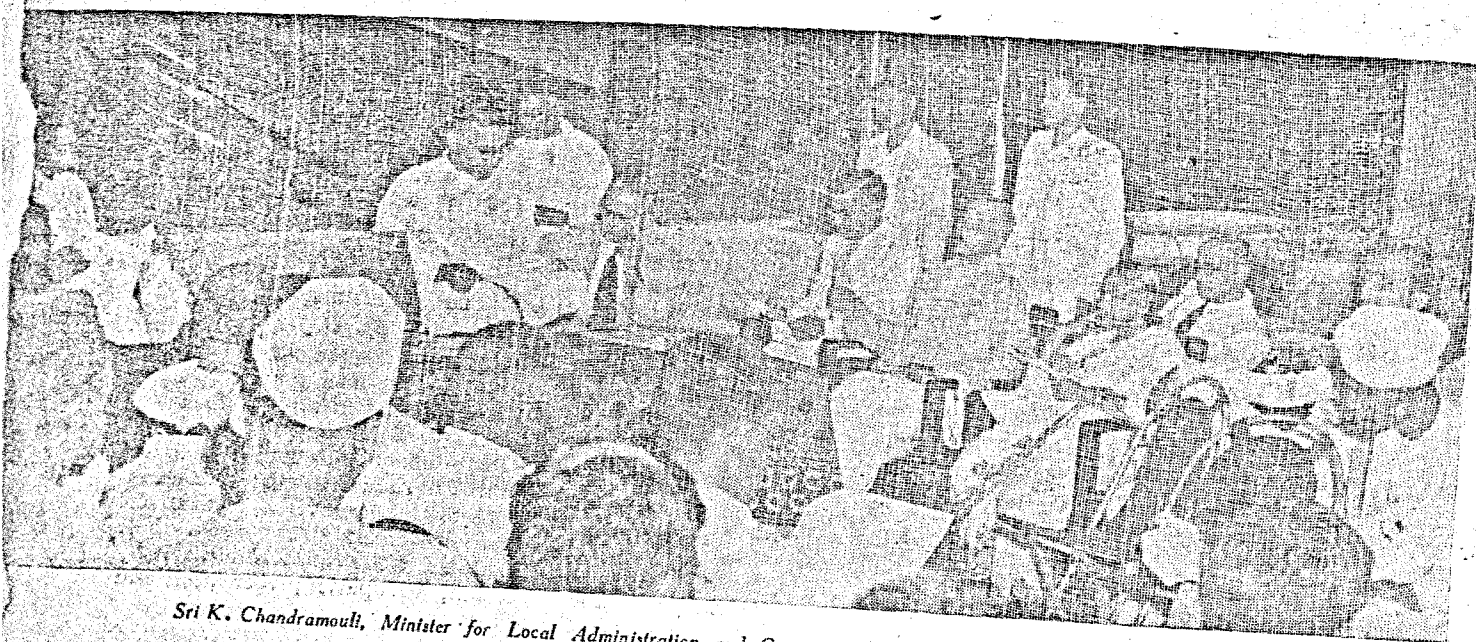
To be cut off from one's family is a misfortune to which few people can be reconciled. To the patient isolated in a leprosy hospital nothing is more agonizing than thoughts of his family and fear of their being in want. The social worker must arrange for financial assistance to the family of leprosy patients; besides, he should also help them to live without fear of ostracism. He should help to maintain a flow of continual contact by letters and visits between the patients and the family. Social workers have also a whole series of absorbing work to do in the sanatorium itself by providing for the education, occupation, recreation and devotional lives of patients.

Social work for leprosy has not yet taken the organised shape which it should take. In the recent International Conference at Havana and in the two recent All-India Leprosy Workers' Conference the subject of social work in leprosy received prominent attention. It is to be hoped that training in leprosy will be provided for social workers. The main aims of our social work for leprosy should be (a) the education of the public, (b) the protection of children from infection, (c) the social readjustment of the patients and their families leading to complete moral economic rehabilitation. As knowledge grows and training is imparted to social workers the physician will find in them a potent ally even in their own specific field of work, e.g., accurate diagnosis and more effective treatment and management of cases.

For social workers take the total human point of view and escape a narrow or a particular point of view. To have a social worker at his elbow is for the doctor to have a clearer notion of the bearing of health upon the social welfare of the individual and vice versa. Let us hope that in this country the social worker will soon come into his own and benefit the several fields of human ills.

Pandit Jawaharlal Nehru, Prime Minister, inaugurating the Third Conference of Health Ministers in New Delhi. Others in the picture include Rajkumari Amrit Kaur, India's Health Minister, Dr. Jivraj, N. Mehta, Dr. M. D. D. Gilder and Sri Gulzarilal Nanda, Member of the Planning Commission.





Sri K. Chandramouli, Minister for Local Administration and Co-operation, inaugurating the Conference of Land Mortgage Banks in Rayalaseema, held recently at Adoni

Land Mortgage Banks

By Sri K. CHANDRAMOULI, Minister for Local Administration and Co-operation

The first land mortgage bank in Madras State was started in 1925 when Government sanctioned the formation of such banks in different parts of the province. The banks floated debentures on the security of lands mortgaged to them. Subsequently, the need for a Central Land Mortgage Bank was felt and was equally emphasised by authoritative committees of enquiry in view of the difficulty experienced by the primary banks to obtain funds through debentures.

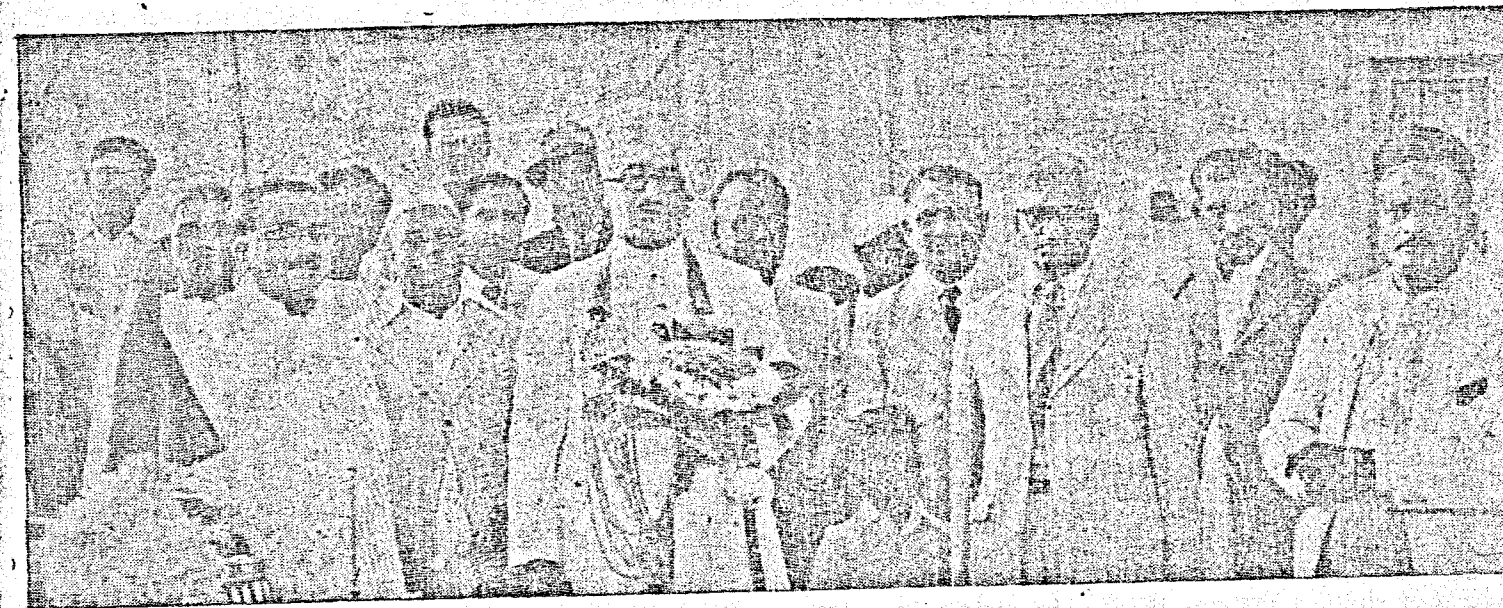
The Madras Co-operative Central Land Mortgage Bank was, therefore, formed in December 1929. It has been financing the primary banks out of funds obtained through centralised debenture issue. The bank raises funds by the flotation of twenty year debentures and makes long-term loans to the agriculturists through primary banks. It is a matter of great satisfaction that land mortgage banking in our State has made very rapid and sound progress since the inception of the Central Land Mortgage Bank which has on its rolls 119 primary banks and 505 individuals. Its share capital exceeds Rs. 12.38 lakhs and its reserve fund Rs. 18 lakhs. Since its inception the bank floated 41 series of debentures at varying rates of interest. The value of debentures now in circulation is Rs. 439 lakhs. Other liabilities of the bank amount to Rs. 13.61 lakhs. The total amount of loans issued by it to the primary banks from the year 1929-30 to 1948-49 was Rs. 643 lakhs.

The Primary Land Mortgage Banks, too, have not lagged behind. There were 119 Land Mortgage Banks in the State on 30th June 1949. Subsequently eight more

were formed. There were about 113 thousands of members on their rolls with a paid-up share capital of Rs. 28 lakhs. The loans outstanding against the members on the 30th June 1949, were Rs. 349 lakhs. During the year 1948-49, the banks disbursed Rs. 5.36 lakhs for land improvement, Rs. 3.36 lakhs for purchase of lands, Rs. 65.82 lakhs for discharge of prior debts or redemption of mortgages and 1.33 lakhs for other purposes—in all Rs. 75.87 lakhs.

Different Kinds of Land Tenure

The land mortgage banks give loans on the first mortgage of lands. This State consists of different kinds of land tenure. They may be Ryotwari or Zamindari. The personal laws and land tenures obtaining in Malabar and South Kanara are peculiar. The lands may again be wet, dry, well-irrigated or rain-fed, garden, plantations of pepper, coffee, tea, cardamum, arca, etc. As the lands of different types mentioned above have to form the mortgage, for the loans issued by the primary banks out of the debenture-holders' money, naturally the basis and methods of valuation are steadily being evolved so as to accommodate the borrower to as reasonable a degree as possible, consistent with the need for ensuring the soundness of the security for the loan. Originally the general principle was that loans might be given by the banks up to 40 per cent of the market value of the hypotheca in the case of wet lands and 35 per cent in the case of dry lands, the market value being determined after detailed local enquiries. The current working principle is that the value of



H. E. the Governor of Madras, Maharaja of Bhaanagar, being received by Directors of the Bellary Central Co-operative Stores, during his recent visit to Bellary. His Excellency said: Co-operative Stores set an example to others, an example of service to the community at large

the hypotheca should not be more than 10 per cent above the pre-war values, provided the value so arrived at does not exceed the average of the post-war and pre-war values.

The Central Land Mortgage Bank obtains long-term capital through flotation of debentures. In the final analysis, the security to the debenture holder is the land that is mortgaged by the ultimate borrower to the primary bank. It is clear, therefore, that unless the borrower is assured of regular income and has consequently adequate repaying capacity, it will be impossible for the bank to make a loan to him; and the land that can ensure regular income or provide sufficient repaying capacity to the ryot is the land that is assured of adequate and unfailing sources of supply of water for irrigation and certainty of crops. This accounts for the intensive spread of the land mortgage banks in the delta districts and for the relatively restricted development of the banks in the other districts, especially Rayalaseema.

Expansion of Activities

The Vijayaraghavachari Committee on Co-operation (1939-40) recommended a five-year plan of expansion of land mortgage banks so as to provide for at least 200 banks covering the whole State. No progress could be made during the years of World War II and immediately hereafter, in view of the vast inflation of prices that took place and in consequence of the large inflow of advance collections and the resulting decline in the business of mortgage banks. It was doubtful if new banks could develop sufficient business in view of the high prices of agricultural commodities and of the tendency on the part of the ryots to repay rather than borrow. Government could not, therefore see their way to the policy of expansion of the movement, unless the conditions congenial to its growth emerged. The Board of Directors of the

Central Land Mortgage Bank and the seventeenth conference of the representatives of primary banks resolved that new banks should be organized.

Having regard to the conditions obtaining in 1949, Government permitted the formation of nine new banks. Subsequent to 30th June 1949, land mortgage banks were started in Pudukottai, Tirumangalam, Karur, Kallakurichi, Chipurupalli, Nandigama and Bellary. A land mortgage bank has been just registered for Adoni, Alur and Siruguppa taluks with headquarters at Adoni. There are now 127 banks. Two more land mortgage banks, one at Narasaraopeta in Guntur district and the other at Tadipatri in Anantapur district will soon be formed. The ryots in the Zamindari villages have hitherto not been able to avail themselves of the facilities offered by land mortgage banks. With the abolition of Zamindaris and the completion of survey and settlement in these areas, I hope that the benefits of long-term credit will be extended to the people there also.

Fostering Care of State Help

It is needless for me to say how much Government are interested in the working and progress of land mortgage banks and how much of this progress is due to the fostering care and help that Government have been rendering to them. The Government gave a subsidy of Rs. 29,000 to the Central Land Mortgage Bank for its working expenses during the first two years. A staff of three Deputy Registrars and 40 Co-operative Sub-Registrars have been appointed to inspect the mortgage banks, to enquire into applications for loans and to appraise the lands tendered for mortgages. One-half of the cost of Co-operative Sub-Registrars and their peons is borne by Government and the other half by the Central Land Mortgage Bank.



H. E. the Governor, replying to the address presented by the Bellary Central Co-operative Stores, observed: Co-operative Stores are valuable because they are an example of joint effort by the citizens, they bring food, clothing and other essential articles at reasonable prices within the reach of the poor, and finally because they act as a check on profiteering.

Government have also been giving the Central Land Mortgage Bank temporary financial accommodation at 2½ per cent interest per annum to enable it to finance the primary banks, and these advances are repayable in nine months or when the debentures are next floated. They have so far sanctioned a sum of Rs. 388.9 lakhs and recovered Rs. 366.9 lakhs. The Government have guaranteed the repayment of principal and interest on the debentures floated by the Central Land Mortgage Bank upto Rs. 550 lakhs. The debentures are included among trust securities. There is no denying that the Government guarantee has helped the bank in securing the money required to finance the increasing number of agriculturist borrowers.

Interests of Ryots Protected

It is true that our banking experts (The Reserve Bank of India) have been advising the Government and the Central Land Mortgage Bank to so regulate their policies that sooner or later, perhaps sooner than later, the Bank may dispense with the guarantee. The interests of the debenture holders are adequately safeguarded by the first mortgage of land, the provision of sinking-funds, the large reserves of the bank and so on. Even so I am aware of what the discontinuance of guarantee would mean to the Central Land Mortgage Bank and to the ultimate borrowers. The latter may probably have to pay more for the credit he needs in the event of the withdrawal of Government guarantee. The public may rest assured that the Government will not take any hasty step which will affect a large body of our agriculturists.

The other concessions which Government have given include total exemption from the payment of fees under the Law of Registration in respect of the encumbrance certificates for amounts not exceeding Rs. 2,000 and the

levy of half registration fees payable in respect of applications for loans not exceeding Rs. 5,000. Government have permitted the issue to borrowers of second and third loans under certain conditions. The land banks in the deltaic areas and in areas which are assured of irrigation facilities, have been permitted to give loans to their members upto Rs. 15,000 each.

Amendments to the Act

The Madras Government have recently amended the Land Mortgage Banks Act by inclusion of a new section—Section 23 (A)—according to which the mortgages executed in favour of and all other assets transferred to a mortgage bank by the members thereof shall, with effect from the date of such execution of transfer, be deemed to have been transferred by such mortgage bank to the Central Land Mortgage Bank. This will dispense with the need for assignment to the trustee of mortgages executed by the borrower of primary banks and help in some measure to cut out delays in the sanction of loans.

The Government have under consideration a further amendment to the Act with a view to help large-scale efforts at land improvement such as erection of engines and pump sets and clearing of and levelling of extensive contiguous areas, for which Rs. 10,000 or even Rs. 15,000 (which is now the maximum permitted to be given by the land banks) may not be adequate. This may also step up food production. The draft Bill provides for several persons joining together and taking a joint loan on the mortgage of the properties owned by them and making the lands liable for such joint loan.

With a view to encourage the issue of loans by the Land Mortgage Banks for productive enterprise and land development, the State Government have recommended to the Government of India a scheme according to which the

interest payable by the borrower who had taken loans for land improvement, would be reduced to 3 per cent and the excess of interest over 3 per cent recovered from them during the years 1943-44 to 1947-48, would be refunded to them with a subsidy obtained for the purpose. The subsidy amounting to about Rs. 14,000 is proposed to be met equally by the Central and Madras Governments.

Valuation of Lands in Dry Areas

I have been receiving representations about the methods of valuation of lands by the Land Mortgage Banks and the need for a more liberal and sympathetic outlook on the part of all concerned. This is a difficult and complicated matter. While one can appreciate the anxiety and the desire of the agriculturists in dry areas to get all possible help from the mortgage banks to discharge their old debts, it is equally necessary to see that the interests of the banks and the debenture-holders are safeguarded. The ryot in dry areas is as much in need of cheap, long-term co-operative credit as the ryot in wet areas, though the incidence of rural debt in the dry areas may be less when compared with delta areas. The difficulty, however, is that the purely dry areas are subject to periodical famines and they affect the ability of the ryot to keep up his obligation to the bank. This is the crux of the problem.

Major irrigation projects, provision of wells, schemes for the restoration and maintenance of irrigation tanks may exert a cumulative influence and help the ryot in Rayalaseema; the Government are sparing no effort or money in these directions. With an improvement in irrigation facilities, there is bound to be an improvement in the value of land as a mortgage security, and the land banks may be expected to show greater consideration and liberality in their lending policies. I do not suggest that we

should not move in the meantime. I only appeal to the representatives of Central Land Mortgage Bank and the primary land mortgage banks to see how best their respective interests can be reconciled without prejudice to the soundness and stability of the structure which we have built up in our State and which has won the appreciation of experts and administrators in other Indian States.

I learn that the Central Land Mortgage Bank and the Registrar have under their consideration a proposal for the constitution of a revolving fund from which the Land Mortgage Banks might draw delinquent instalments in case of crop failure or other causes which prevent the borrowers from paying their annual instalments to the banks promptly. This is also a suggestion which deserves examination.

'Delays' in the Sanction of Loans

There have been occasionally complaints of delay in the disbursement of loans by Land Mortgage Banks. As business organisations, the Central Land Mortgage Bank and the Primary Banks have to satisfy themselves fully about the applicant's title and repaying capacity, the value of security, etc. Making allowance for the time taken for this examination the various processes involved in the scrutiny and disposal of loan applications should be speeded up. One of the causes for the delay can, I think, be traced to the loan applicant himself. The applicant does not know how the loan should be got from a land mortgage bank, what information he should furnish, what documents he should produce and what evidence is necessary to prove the existence of the debts—which he seeks to discharge out of the loans from the bank. He can help himself by helping the bank in this matter. He needs education in this respect.

State Cottage Industries Board

The Government of Madras have constituted a Cottage Industries Board with the following personnel to devise ways and means for the intensive development of Cottage Industries in the State:—

The Minister for Rural Development (Chairman), the Minister for Industries, the Minister for Local Administration, Secretary to Government in the Rural Welfare Department, the State Firka Development Officer, Director of Industries and Commerce, the Registrar of Co-operative Societies, Sri V. Ramakrishna, I.C.S. (Retired), Sri N. M. Adyanthayya, Mangalore, Sri C. A. Aiyamuthu, Coimbatore, Sri T. C. S. Achary, Vivekananda Industries, Perambur, Madras and Sri L. Venkatakrishnan, Madras. The Deputy Director of Industries and Commerce (Cottage Industries) will be the Secretary to the Board.

While devising ways and means for the intensive development of Cottage Industries in this State, the Committee will have in view the improvement and expansion of rural industries in a manner that will ensure the full utilisation of local manpower and raw materials to meet local demands, as well as the balanced development of village economy based on agriculture and cottage industries, leading to the economic self-sufficiency of the villages and raising their standard of living. The Committee will aim at the establishment and expansion of mechanised cottage industries based on modern techniques so that the integration of the large-scale and small-scale industries may be secured and the country's need of utility goods fully satisfied. The development of the traditional artistic skill of the craftsman will also be taken into consideration and emphasis will be laid on the co-operative organisation of cottage industries at every stage.

The members of the Board will hold office for three years.

Labour Welfare in the State

By HENRY PETER, Esq., Deputy Commissioner of Labour

Broadly speaking, welfare work consists of efforts to make the life of a worker worth living. Though this is a general concept of all welfare work, a clear definition of the welfare activity "is one in which much can be done, to combat the sense of frustration of the industrial worker, to relieve him of personal and family worries, to improve his health, to afford him the means of self-expression, to offer him some sphere in which he can excel all others and to help him to widen conception of life. If within the field of welfare and particularly that part of it which comprises sport and games a large measure of self-government can be left to the workers, even in the management of facilities provided by the employer, a sense of responsibility, initiative and co-operation can be fostered and founded among those whose daily tasks afford them the least opportunity of developing characteristics so essential to industrial enterprise and ways of citizenship." In the agricultural and

A Kashmiri wood carver at work with some finished products. In the background is a screen of walnut wood with intricate carving



industrial undertakings of our country it is necessary to make life worth living for workers. Bad labour conditions, wherever they are, in respect of inadequate wages, insanitary living conditions, poverty and unemployment among the workers deserve prompt attention, for it is an accepted principle that poverty anywhere is a danger to prosperity everywhere.

The effective methods by which the labour welfare work can be undertaken are: First, the State generally takes up welfare work through legislation in the educational and social affairs. Secondly, the enlightened employers with wisdom seek to provide voluntary conditions of work in respect of wage, living conditions, food and recreation than the minima which the law demands. Thirdly, the Trade Unions by their efforts can try to raise the standards of workers and secure material and social recognition for their people.

Betterment by Legislation

The several Acts and administrative rules through which the State seeks to secure for the workers certain minimum standards of health, safety and comforts inside the factory may only constitute what may be called statutory welfare secured by the coercive power of the State and may be distinguished from voluntary welfare work. Legislation can do nothing more than prescribe minimum standards, but the promotion of the welfare of the workmen is an essential function of the managements. This will have to be done, however, in co-operation with the workers. In fact, no enforced scheme of welfare work is ever likely to be successful except with the co-operation of the management and the workers. Let us now examine the efforts taken by the State to make the lives of the workers worth living.

In pursuance of the declared policy of the Government, the legislative measure in respect of labour welfare, old and new, are being enforced and implemented. There are further legislative measures undertaken towards labour welfare which are on the anvil of the legislatures. In the Factories Act of 1948 special care has been taken to see that better conditions in respect of hours of work, holidays with pay, employment of women and children, etc., have been duly provided for. By the enactment of the Workmen's Compensation Act of 1923, the Land Acquisition Act of 1933, the Madras Maternity Benefit Act of 1934, the Indian Mines Act of 1935, the Payment of Wages Act of 1936, the Employees State Insurance Act of 1948, the Employment of Children Act of 1939, the Industrial Employment (Standing Orders) Act of 1946, the Indian Trade Union Act of 1947 and the Minimum Wages Act of 1948, the State has undertaken to see that the rights and welfare of the workers—men, women and children—are adequately protected.

Settlement of Industrial Disputes

In the matter of employer-employee relationship, the Industrial Disputes Act of 1947 provides for investigation

and settlement of industrial disputes by conciliation, arbitration and adjudication. It regulates and prohibits illegal strikes and lockouts. A few difficulties which are felt in the administration of this Act are proposed to be remedied by the introduction of the Industrial Relations Act which is now in the form of a Bill before the Central Parliament. It would be interesting to note that a majority of the disputes in this State has been settled by conciliation. Out of 5,307 disputes which arose in the year 1949-50, only 85 were referred to the Industrial Tribunals for adjudication. This Act further provides for the formation of Works Committees in all industrial establishments employing 100 or more workers. These Works Committees consist of representatives of employers and workmen engaged in the establishments. It has for its object the promotion of measures for securing and preserving amity, and good relations between employers and their workmen and to comment upon matters of common interest and to endeavour to compose any material difference of opinion in respect of all such matters.

The staff and workmen employed in the shops and commercial establishments have not been forgotten. To regulate the conditions of work in shops and commercial establishments, restaurants, theatres and other establishments, the Madras Shops and Establishments Act of 1947 was enacted by this State. A Plantation Code is envisaged in order to regulate the conditions of work in the Plantations.

Enforcing the Rules

In order to administer the provisions of the Factories Act there are as many as 22 Factory Inspectors and one Deputy Chief Inspector of Factories, with the Commissioner of Labour as the Chief Inspector. As for industrial relations, there are 14 labour officers who look after conciliation work and settlement of disputes in the several industrial areas of the State. The Commissioner of Labour assisted by the Deputy Commissioners of Labour attend to the work of conciliation and settlement of industrial disputes arising in the State, while 199 Assistant Inspectors of Labour administer the provisions of the Madras Shops and Establishments Act in all the municipalities and major panchayats in the State. For enquiring into cases under the Workmen's Compensation Act, the Commissioner and the two Additional Commissioners, viz., the Deputy Commissioner and the Assistant Commissioner, visit the places where the claims arise and dispose of them.

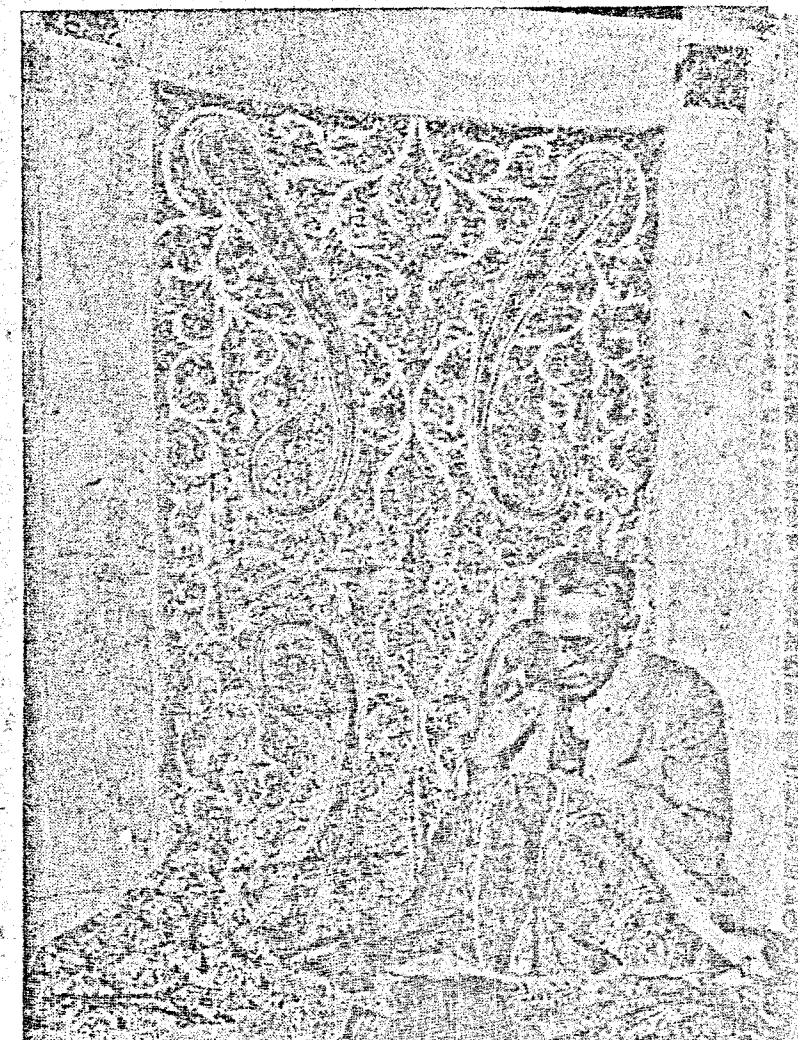
As already mentioned, legislation is only a spur to voluntary welfare work. Much has therefore to be done by the managements. It is generally agreed that where there are more than 250 women workers employed in a factory, there should be one woman welfare officer. The Government have also recommended that factories in which more than 300 workers are employed, a labour welfare officer should be appointed. A few of the mills in Coimbatore, Madras and Madurai are having such welfare officers in their factories. To help the managements in this regard, the Government have also appointed two Inspectresses of Factories in order to carry on labour welfare work among women workers in the factories.

Promotion of Health and Comfort

The promotion of health and comfort and happiness of the worker and his family is another important factor. It has already drawn the attention of the employer and the State. By health I do not mean the absence of disease or illness. A healthy person is one who can resist diseases, has enough energy to withstand the strain of occupation and can perform his legitimate functions without undue fatigue or languor. The Grady Mission observed that given good health, satisfactory conditions of work and adequate education, there was no reason why the Indian worker should not be as strong and efficient as a worker in the West.

Fatigue is a factor which has to be reduced to its minimum. This may be due to ill-arranged or insufficient rest-pauses. With the provision in the new Factories Act on the shift arrangements, fatigue has been reduced to a great extent. Rest sheds have been constructed for the workers in several textile mills in the State.

The Kashmiri shawl is a textile design woven from the under-fleece of a goat, a very fine variety of wool called 'pasham' decorated by means of patterns in colour. Here a craftsman is knitting colourful designs into a shawl. A finished shawl is seen in the background.



FOOD

of the Gardens has been vastly improved; the Annual Flower Show is much appreciated and serves to interest the public in the objects which the Society has at heart. About 5 acres of the Nursery Garden area is being used for the training of Agricultural Students in Horticulture since 1948.

The Society relies for finance on members' subscriptions, receipts from the sale of plants and on the Government grant. The A class membership subscription has been Rs. 28 per annum from the beginning. In 1888, another class B of members paying Rs. 12 per annum was adopted and is being continued. The Government grant varies from Rs. 3,000 to Rs. 4,000 per annum and is equal to the value of the annual subscription collected from members.

Food Self-Sufficiency Plan

The Government's Food Self-Sufficiency Plan is concerned primarily with feeding the present population according to the current standards of consumption, and for providing food, according to existing standards, for the gradual increase in population, without resorting to imports after 1951.

The schemes under the Food Production Campaign should, therefore, be considered as remedies for an existing crisis judged by standards of consumption which prevail to-day. Therefore, the only measures which can suitably be taken are those which would produce quick results which are also permanent. It is because of the limited objective of stopping imports that the emphasis is laid on the production of cereals.

To meet this deficit, which is roughly 10 per cent of the country's total production, the Government of India have carefully considered various schemes for increasing food production. The quickest method of increasing production in India is, to increase the yield per acre by employing better farming methods. These can be broadly divided into two main categories, permanent and recurring. The permanent improvements are those which

Plants to the value of the subscription are supplied gratis to members. Seeds also will be given against the subscription hereafter in accordance with the Society's resolution passed this year. Exotic trees which afford much interest and instruction to the scientific public and to students of botany may be seen in the gardens of the Society.

In connexion with the drive for food production, the Society has been making special efforts to encourage the growing of fruits and vegetables in and around Madras. Valuable prizes are being offered both to gardens insitu and for exhibition specimens of fruits and vegetables displayed at the Annual Flower Show, which is generally held in the last week of January or the first week of February.

result in an increase of yield per acre for a number of years. They are mainly: (a) minor irrigation works, and (b) land improvement works. Recurring improvements are those which have to be continued and intensified from year to year so as to achieve a progressive increase in yield per acre. These recurring schemes relate mainly to: (a) production and distribution of improved seeds, (b) application of chemical fertilisers and green manuring, (c) composting of farm-yard manure and town refuse and its application to the soil, and (d) plant protection.

The reclamation and cultivation of waste lands is another aspect of the food production programme. In the Central Indian regions of the United Provinces, Central Provinces and Berar, Madhya Bharat and Vindhya Pradesh especially, there are large areas of weed-infested land which can be made productive by tractor cultivation. Here land can be reclaimed on an extensive scale. The initial experience gained in mechanized land reclamation in the Ganga Khadir area of the United Provinces and in the Saugor and Hoshangabad districts of the Central Provinces has been promising. This work will continue with the aid of 375 heavy reclamation tractors which are being imported from the United States of America.

Food Situation And Engineers

The food situation in our country, and in our State in particular, is causing much anxiety. It is unfortunate that while all our efforts are unsparingly aimed at increasing food production so as to make ourselves self-sufficient in food, the vagaries of seasons have rendered the position precarious. While the northern part of our State has been affected badly by the cyclone, flood and inundation, the entire south is under the scourge of failure of monsoon, rendering food-crops to wither and die. The acuteness of conditions obtaining at present is a thing which our State has not experienced in recent years. However, efforts should be made to stem the tide of impending calamities. Measures, permanent in nature, should be concerted to

prevent recurrence of such situations of sub-normal production.

The fate of the agriculture industry depends largely upon the availability of irrigation facilities, which in turn depend upon Engineer's work. The waters of the Godavari and the Krishna, even after the completion of the projects that are now in the process of making, go as waste into the sea to a major extent. Such perennial rivers must be harnessed to benefit the community fully. The tank irrigation system which is an ancient one which we have as our proud heritage, is to be improved.—(Adapted from the speech of the Chief Minister.)

FOOD

Towards Self-Sufficiency In Food

Three-Year Plan

Pandit Nehru has declared that there will be no food imports after 1951. India must attain self-sufficiency in food production within these two years. In the overall campaign strategy for growing more food, Madras Province, a deficit area, has a vital role to play. To this end, the Madras Government have formulated a three-year plan for intensive cultivation, operative during the years 1949-50, 1950-51 and 1951-52.

The plan consists of—

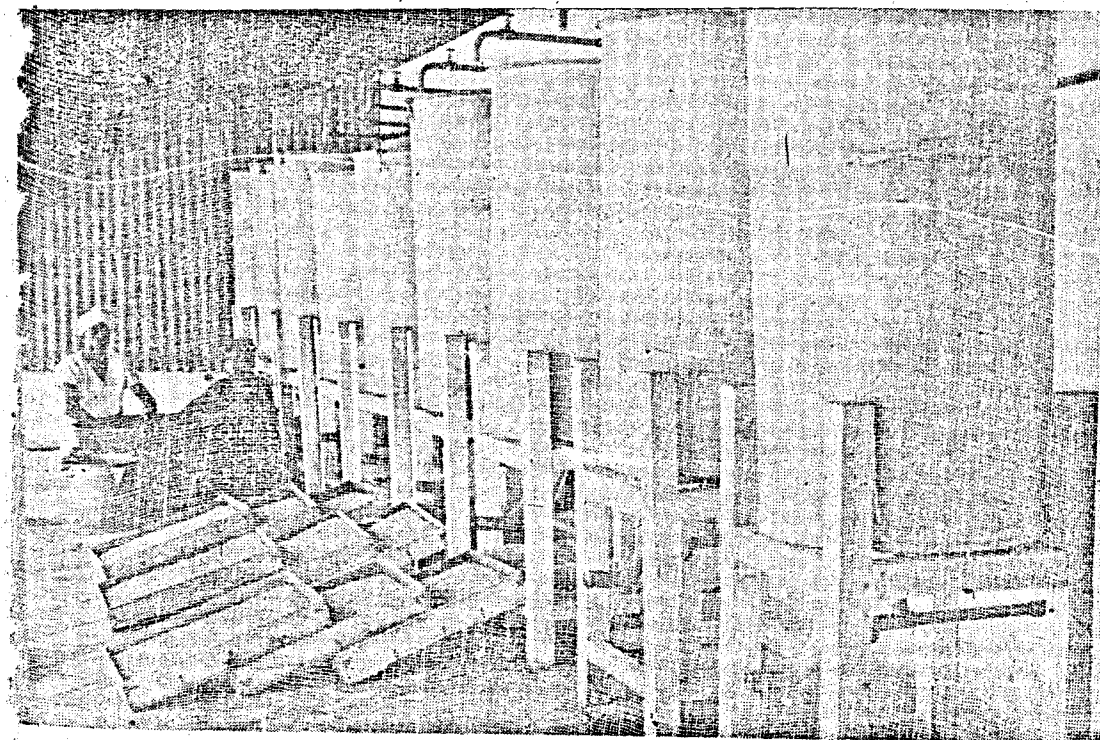
1. Agricultural Schemes,
2. Schemes for the improvement of irrigation sources all over the Province in zamindari as well as ryotwari areas, and
3. Subsidiary schemes for the sinking of wells.

By this three-pronged drive, the Government aim at achieving a net additional production of about 2.09 lakhs tons of foodgrains (rice and millets) in 1949-50, about 3.63 lakhs tons in 1950-51 and about 5.38 lakhs tons during 1951-52. Assuming that the monsoons will be normal, these targets depend upon the completion of arrangements for the distribution of specified quantities of fertilizers, green manure, seeds and improved paddy and millets seeds to the agriculturists.

If these targets are reached, we will be able to maintain the present consumption levels without any large import assistance from other areas, though the deficit of this Province will not be wiped out altogether.

1. *Agricultural Schemes.*—The main agricultural schemes are:

- (a) land development by mechanical cultivation: installation of oil engine pump sets and petrol pump sets,
- (b) supply of electric pump sets to ryots for lift irrigation,
- (c) hiring of electric motor pump sets and oil engines through the Central Agricultural Engineering Stores and Supply Centre,
- (d) tractor cultivation,
- (e) rural compost making,
- (f) subsidized distribution of phosphatic manures,
- (g) distribution of ammonium sulphate,
- (h) multiplication and distribution of improved paddy and millet seeds,
- (i) green manure, and
- (j) distribution of iron and steel for agricultural purposes.



Malt Food Factory,
Coimbatore

Medical facilities have been provided by the managements. Several managements in Madras are alive to the necessity of maintaining medical staff to examine the health of the employees before admission to employment, in fact two medical officers were appointed as Additional Inspectors of factories for conducting a survey of medical facilities provided for factory workers with a view to extend the provisions of the Employees State Insurance Act to this State.

Provision of balanced diet is another factor for consideration for the health of the worker. To that end the Government have instructed that wherever there are 250 or more workers employed in a factory, the management should provide a canteen. Most of the managements have opened canteens in their factory premises and they have become popular. The canteens, besides providing cheap and nutritious food, eliminates the needless hurry of the workers in reaching their homes for their meals.

Housing and Recreation

The need for a well-planned scheme for housing and recreation is also keenly felt. About 31 factories in this

A Malabar Muslim woman apprentice tapper learning her job. Only the almost worn out trees are used for this purpose as tapping is a semi-expert job. Rubber plantations of South India absorb a large section of Indian labour

Capital and Labour

I have always said that my ideal is that capital and labour should supplement and help each other. They should be a great family living in unity and harmony, capital not only looking to the material welfare of the labourers, but their moral welfare—capitalists being trustees for the welfare of the labouring classes under them.

—GANDHIJI

State have provided housing accommodation in the year 1948. An outstanding example of a management's initiative in providing housing for its workers may be found in the Harveypatti Colony near Madurai. This matter has also been discussed at length at the last meeting of the Provincial Labour Advisory Board to find ways and means to implement the scheme.

Creches are institutions where the young children of the women workers in the factories are taken care of while their mothers are at work. It is heartening to find that most of the textile mills in Coimbatore and elsewhere have provided creches in their factories. They are working satisfactorily and efficiently.

The sense of saving has also to be inculcated in the minds of the workers. The receipt of extra wages or bonus or other gratuity should not be spent lavishly. With this end in view, the Government are insisting that one-third of the bonus paid to the workers on the basis of the awards of Industrial Tribunals should be in the shape of Small Savings Certificates.

Stores and Schools

Co-operative Societies and co-operative stores also play a vital part in the scheme of labour welfare. Co-operative methods can with real advantage be applied to the promotion of the economic conditions of the industrial worker. For instance, co-operative credit can redeem a worker from the clutches of the urban money-lender and co-operative canteens and stores can provide him with wholesome food and provisions at competitive prices. Even the problem of housing the industrial labour can be tackled through co-operative measures. The all-important question of health and efficient health services can also be solved on co-operative lines with the assistance of the employers, Government and the local bodies.

With the proper education of the worker, he would be able to realise his responsibilities to the employer, the State and his own family. In a few industries schools for the labourers' children have been started. Many more have yet to provide such schools. Reading rooms, libraries, recreation clubs, etc., are other amenities which go a long way to improve the worker and his relationship with his employer.

(Continued on page 33)

Problem of Plantation Workers

The setting up of an International Committee by the ILO with Sri V. K. R. Menon, India's Labour Secretary, as its Chairman, to study working conditions in the plantations bring to the forefront the problem of plantation labour which has long been neglected. This Committee which will meet in Indonesia towards the end of this year, will make its recommendations based on memoranda submitted by experts of various countries. On the Committee's recommendations will depend the nature of conventions or recommendations which the ILO will adopt. The ILO's appointment of the Committee marks a decisive reorientation in its policy, as up till now its conventions related mainly to industrial and factory labour.

In India the question of plantation labour has been assuming importance in view of the large number of workers engaged in the industry and the export trade. Plantations provide work for nearly 12 lakhs workers, the largest number 980,000 being employed on the tea estates. The area under cultivation of the main plantation crops like tea, coffee, rubber and cinchona is 1,121,500 acres, tea alone accounting for 772,543 acres. In 1949-50, 439.5 million lb. of tea were exported bringing about Rs. 72.05 to the State coffers.

Like industrial and mining labour, plantation workers have their own problems. It is necessary in the interests of the industry that there should be a comprehensive legislation governing conditions of work in the plantations. That was also the consensus of opinion at the Tripartite Conference held in Delhi in September 1949 of Government, Planters and workers. At present various statutes have been made applicable to the plantations like the Workmen's Compensation Act, Tea District Emigrant Labour Act and the Payment of Wages Act, but these piecemeal statutory safeguards have not resulted in improving the lot of the plantation worker. Legislation based on the model of the Factories Act of 1948 appears to be the desirable.

Recruitment of Labour

Most of the labour on the plantations is migrant. Workers are recruited from adjacent districts or villages, hill tribes and other parts of the country. Recruitment is done individually and by family units. The family method of recruitment is preferred since there is every type of work suitable for men, women and children. This recruitment is done by agencies. In Assam and Dooars (West Bengal, North India) recruitment is made through the Tea Districts Labour Association set up by the industry for the purpose.

The recruits are all volunteers and are subject to medical examination on arrival at the estate by its medical staff. A worker is generally entitled to repatriation after three years service. Recruits generally travel to the estate in charge of the recruiting agents and are paid their travelling expenses and allowance for food which are borne by the planter.

Hours of Work

Work on the plantations is seasonal in character and workers are generally discharged at the end of the season and re-employed when the working season commences.

In spite of this a very large percentage of workers resides on the plantations. In the North-east Indian plantations, work is available throughout the year, while in the South efforts are made to find alternative employment when normal work cannot be offered. The plantation labourer works by habit for eight hours, though there are seasonal variations depending on weather conditions and conditions of the crop. In North-east India, for instance, hours of workers vary from four hours in the cold weather to eight hours in the plucking season.

There is a weekly rest day on Sundays or the bazaar day for which no wages are paid. As they are governed by the Factories Act of 1948, factory workers get the number of annual holidays provided under this Act, but field workers get two or three paid holidays on the occasion of religious and public festivals. Apart from occasions of all India importance, the grant of paid holidays varies according to local conditions and the decisions of the District Planters' Association concerned.

The earnings of a plantation worker are small in comparison with those of industrial labour, but taking into

A coffee picker. There are a number of coffee plantations round about the hill stations of South India.



account the amenities which a section of the workers enjoys in the form of free housing, medical attendance, free fuel and concessional rates of foodgrains, it appears that he is not so badly off. The system of payment of wages also differs in various regions. In certain areas he is paid by task, in others by unit and some others by day or month. The task is defined having in view the amount of work which a normal industrial worker could be expected to do and thereby earn his basic pay. It is adjusted according to the capacity, age and sex of workers and also according to variable conditions of work in each estate or area.

In Northern India, the factory worker generally works on a time basis while the field worker does piece work. Key workers in the factory are frequently paid by the month or week. In South India, field and factory labour are mostly interchangeable, field workers working in the factory being paid one anna per day more on the general overall daily time rate in some estates. This practice is being discouraged now.

Wage increases were given to plantation workers in May 1948 as a result of discussions at a tripartite conference held in Delhi in April 1948. Inclusive of dearness allowance the earnings of men workers in the plantations vary from 14 annas to Rs. 1-4-6 and for women from 8½ to 15½ annas. Children are generally paid from 5 to 10 annas, the wages varying according to local conditions and prices. The employment of children below 12 years is banned. Ration shops have been opened in most estates and workers are sold foodstuffs and other stores at concessional prices, but the increase in wages has not led to any substantial improvement in the economic condition of the plantation worker. He still resorts to borrowing.

An inquiry conducted in 1947 in the South India plantations disclosed that out of 274 families surveyed in the Madras Tea Estates, 100 per cent of the families were in debt, the average debt amounting to Rs. 26. In the rubber estates of Madras and Coorg, indebtedness was higher, 93 per cent of the families being indebted to the extent of Rs. 48 per family. In North Indian plantations the position is slightly better, the average debt amounting to about Rs. 9 per head. Workers generally borrow from maistries, shopkeepers and Sardars.

The third meeting of the State Labour Advisory Board was held at P. W. D. Labour Hall at Chempak. Sri H. Sitharama Reddi, Minister for Labour, who presided over the meeting, is seen addressing the Board.



Capitalist and the Worker

It can be easily demonstrated that destruction of the capitalist must mean destruction in the end of the worker; and as no human being is so bad as to be beyond redemption, no human being is so perfect as to warrant his destroying him whom he wrongly considers to be wholly evil.

—GANDHIJI

Social and Labour Welfare

Social service and labour welfare measures in plantations leave much to be desired. The question of providing plantation workers with suitable housing accommodation has, however, been receiving special attention of the Ministry of Labour. As a result of the decisions taken at the First Session of the Plantation Committee held in January 1947, the different Planters' Associations in the country were requested to prepare suitable plans of workers' houses in accordance with the standards prescribed by the Industrial Housing Sub-Committee and undertake their construction on a voluntary basis. Standards suggested by most of them fell considerably below those prescribed by the Industrial Housing Sub-Committee and could not be accepted.

Later on, however, on a representation made by the tea industry in Assam that a strict observance of the standards would involve a disproportionate increase in cost, and because of the acute shortage of building materials in the country, it was agreed to relax slightly the standards. This was agreed to on the assurance that the industry would construct a minimum of 15,000 houses per year during the next three years. The Indian Tea Association has recently agreed to construct as many suitable workers' houses as possible.

The present standards generally conform to the standards prescribed by the Industrial Housing Sub-Committee with the exception of the height of the main rooms and the provision for a separate kitchen. Standards of ventilation, lighting, sanitation and drainage, etc., are similar to the prescribed standards, and on the suggestion of the Government of Assam, the Association has been allowed to go forward with its housing scheme. The Government of India propose to set aside two lakhs of houses for plantation workers out of their programme to build ten lakhs of houses for industrial workers in the course of ten years. It has, however, not been possible to achieve this objective in view of the present financial stringency in the country.

Equally bad are medical and educational facilities, though recent reports from Assam Tea Gardens indicate that the incidence of malaria has been on the wane. There has also been a decline in the death rate. Generally there is a hospital or dispensary on the estates but it is short of stocks of the latest medicines. Medical attention is given free to the workers and their dependants. In South India, a sick benefit at the rate of 12 annas per day is allowed to all workers for 14 days in each calendar year. In

the North India tea plantations, the rate is 8 annas per day for 14 days to workers who have put in 150 days work. In the cinchona plantations, there are maternity clinics and in some others, there are arrangements for both pre-natal and post-natal care.

Education and Recreation

Elementary education is imparted mostly in schools maintained by the estates but attendance being voluntary, the response is generally poor. Only a few schools provide for higher elementary education and primary instruction. Education is free except in the cinchona plantations where fees varying from 12 annas to Rs. 3 per child are charged. In some estates children are provided with a free midday meal but not necessarily at the school itself.

Welfare amenities also appear to be inadequate. Though a number of larger estates have appointed Labour Welfare Officials, recreational and other welfare measures require to be improved. Some estates have established tea canteens which also serve light refreshments and snacks. A number of shops especially in North Travancore have started workmen's clubs and in cases where suitable land is available, football, hockey and other games are played, but these games are limited to the supervisory and clerical staff, and the ordinary worker scarcely takes part in them.

Provision for Old Age

Though there is no pension scheme, several gardens in North-eastern India make ex gratia provision for old age by giving workers an honorarium for doing light tasks and allowing them land for cultivation. The practice varies from garden to garden and in some cinchona plantations, pension is sanctioned to workers in consideration of their merit and service. Any occupational injury suffered by the worker is compensated under the Workmen's Compensation Act of 1923. In some plantations like cinchona, workers are covered by rules prescribed by Government.

In certain estates Works Committees have been set up. The latter are consulted on matters affecting workers—housing, provision of foodstuffs, medical and welfare arrangements. Personal contact between workers and management is a special feature of working conditions on the plantations.

To sum up, next to industry, plantations in India employ the largest number of workers, roughly fifty per cent of the total number employed in industries. Conditions of employment necessarily vary and the need for comprehensive legislation embracing all aspects of the plantation workers' life is obvious. There is a general consensus of opinion in favour of such legislation which is now engaging the active consideration of the Ministry of Labour.

Engineering Diploma

The Government have directed that the Diploma in Electrical Engineering of the College of Engineering, Trivandrum, be deemed as equivalent to the Licenciado in Electrical Engineering Diploma awarded by the Technological Diploma Examination Board, Madras.

Labour Welfare in the State

(Continued from page 30)

Lastly, the duties of the Trade Unions to raise the standards of the workers and to secure material and social recognition for their members are great. The Trade Unions have a great part to play in the matter of organization of labour and also to make them realise their responsibilities. It is a common complaint that the more labour has taken from the management, the less is the return from labour. When it is a question of 'produce or perish,' workers would be failing in their duty if they do not put their utmost efforts in the matter of production. Dignity of labour is not acquired merely by adequate monetary award, important as this aspect is, but by work, well and truly done. Can it ever be denied that partners have duties as well as rights. Labour must recognise that while it has rights which the Government are seeking to protect, it has also certain duties to perform, on the proper discharge of which alone depends its progress and prosperity. The Trade Unions have a heavy load of responsibility in bringing home these facts to the workers.

All welfare work is bound to show its result in increased output, diminished sickness and absenteeism. There would be better relationship between the workers and the managements—all manner of differences will be readily adjusted, and the welfare department will be able to create an atmosphere of goodwill and harmony, so essential for avoidance of strikes and lockouts. Labour is morally bound to reciprocate and thereby increase productivity and efficiency. This will lead to the preservation of national wealth, and raising of the status of India in the realm of International Trade and Commerce.

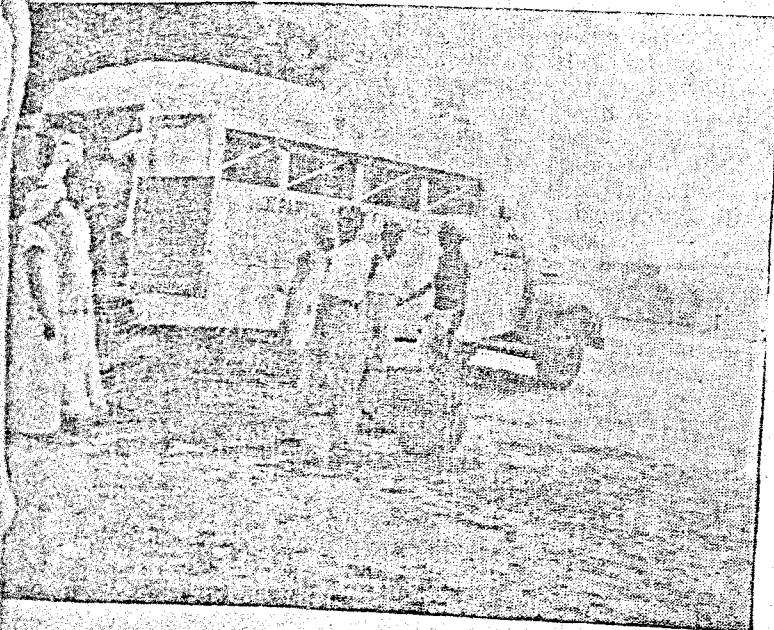
Ban on Supply of Iron and Steel for Luxury Types of Constructions

The Government have ordered that no iron and steel and cement should be released for elaborate and 'luxury' types of construction and non-essential structures such as cinemas, dance halls, studios, amusement concerns, etc. In Press Note No. 239, dated 16th December 1949, issued by the Public Works (Information and Publicity) Department, the Government have also fixed the order of priority for the release of iron and steel for private constructions and have further ordered that the quantity of iron and steel should be limited to eight tons to each residential building.

The public are now informed that all residential buildings of whatever class, the plinth area of which exceeds 3,000 square feet, or the floor area exceeds 6,000 square feet and all non-residential buildings the plinth area of which exceeds 5,000 square feet or the floor area exceeds 10,000 square feet will be considered as 'luxury' types of construction and no iron and steel will be released for the construction of such buildings. The above restriction in the case of non-residential buildings will not apply to public utility buildings, such as hospitals, schools and other constructions used for the health and economic prosperity of the country constructed by the general public for which a maximum limit of 20 tons per quarter has been fixed.

Vol. 11
No. 10 Oct 1946

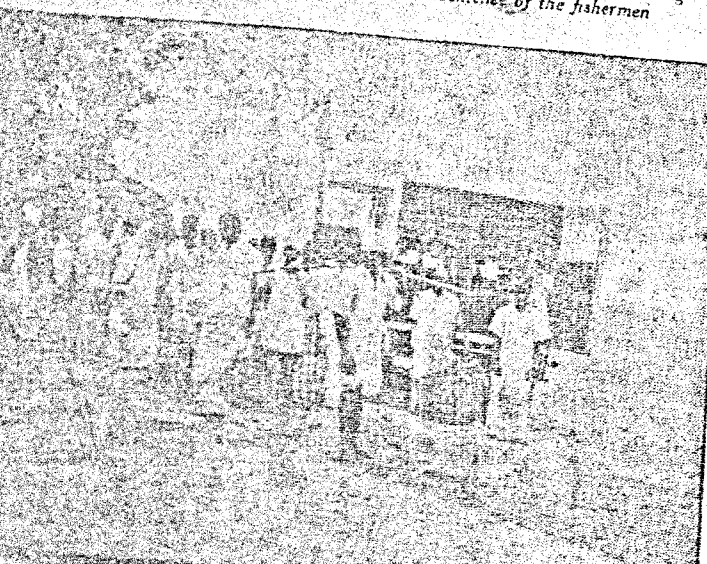
Fish Transport Vans



A prize catch held in front of the Fish Transport Van. But for this special van, the fish would have been spoiled before it reached the market.

In order to augment the fish supply to towns, the Fisheries Department has been running special vans with provision to seat 24 passengers and to keep about two tons of fish in racks in the middle of the van. One van has been running from Ennur. On an average about 20 persons carrying about 1,500 lb. of fish come to the market every day. Fish is subject to very rapid spoilage. As the fishermen in our coasts are using only indigenous crafts like catamarans, they have to spend considerable amount of energy and time in reaching the fishing grounds.

The Fisheries Department has made arrangements for morning and evening trips to suit the convenience of the fishermen.



and returning to the shore. Very often they do not return to the shore early enough to reach the markets in time. The provision of these transport vans has made it possible for fish landed even at 4 or 5 p.m. to reach the markets before 6 p.m. There is also a van at Lattice Bridge in Madras City.

Of late one of the fish transport vans is being used for transporting fish from Tirupalaivanam. In one week ten tons of fish worth about Rs. 15,000 were transported. Hitherto about 40 per cent of the fish used to be lost by spoilage. All these fish now reach the market in perfect condition. The Fisheries Department has made arrangements to suit the convenience of the fishermen. Trips have been arranged for both mornings and evenings. Ice is being taken in special onozite boxes and supplied at cost price to fishermen to prevent even a possibility of "spoilage."

Some time back the Food Minister and Rural Uplift Minister went to Tirupalaivanam to settle a dispute between the local Harijans and fishermen. The Director of Fisheries who also accompanied them explained to the fishermen and the Harijans the facilities of quick transport offered by the department. It is worth noting that both the Harijans and the fishermen are living together amicably and are both using the transport. The amount of money saved each day by provision of this quick transport is about 40 per cent of the value of the fish.

Shark Liver Oil for Livestock

The Government Oil Factory at Kozhikode which was started by the Government of Madras in 1940 has been producing shark liver oil for medicinal purposes mainly for human beings. But vitamins A and D are not only needed by human beings but are equally important in the dietary of livestock. To-day vitamins A and D are known to be essential to livestock and in most Western countries, farm animals consume as much liver oil as human beings. In Canada, for instance, about 100,000 gallons of liver oil are administered to farm animals.

Although our country can boast of the largest cattle population, it is yet a matter for regret that our quality is most disappointing. With a view to exploiting the potentialities of shark liver oil in the improvement of our livestock in which so keen an interest is now being shown on all sides, Government have sanctioned the marketing of a special brand of shark liver oil specifically meant for livestock.

Veterinary Brand Shark Liver Oil

Since April 1, 1950, Government Oil Factory, Kozhikode, has introduced a series of three brands of Veterinary Shark Liver Oil. The three brands are pure Shark Liver Oil finely drawn from richest shark livers and standardised and guaranteed to contain various contents of Vitamins A and D. This series has been well received by the Veterinary Department and by those interested in livestock.

Malt Extract with Shark Liver Oil

Malt Extract with Shark Liver Oil is a palatable tonic food, manufactured at the Government Malt Factory, Coimbatore, by scientific methods and under expert supervision. It is a high quality product, rich in nutritive factors and contains 200 International Units of Vitamin "A" per gram and also Vitamins "B-1" and "D". It contains high amounts of easily digestible sugars and acts therefore as an energising tonic in mental and physical fatigue. Malt Extract with Shark Liver Oil is specially recommended for infants, invalids and convalescents as it contains the essential vitamins which aid in the normal metabolism and growth of children and in correcting rickets and hastening convalescence. Administration of Malt Extract with Shark Liver Oil to expectant and nursing mothers is a valuable prophylactic measure against vitamin deficiency in children.

Malt Extract with Shark Liver Oil has been tried in various Maternity and Child Welfare Centres and has been found to be a quality product. The Surgeon-General with the Government of Madras has declared it as a product fit for use in all the Medical Institutions. The tonic is being used regularly in almost all the Government, Local Fund and Municipal Medical Institutions in the State.

Repeated orders and reports received so far testify to the efficiency of Vitamins A and D contained in shark liver oil in the improvement of our livestock.

Adamin Capsules

In 1945, Government Oil Factory marketed High Potency Shark Liver Oil under the trade name of "Adamin." During these past five years, Adamin has become very popular with the consumers as well as with the medical profession. With a view to making the administration easy and convenient, Adamin has now been encapsulated. These three minim Adamin gelatine capsules are scheduled to be marketed early in September. These capsules should meet the long felt need by the section of the population for a convenient way of taking liver oils.

Bridge over Pennar at Nellore

The unveiling of the Commemoration Tablet on 20th August 1950 marks the commencement of the construction of the Bridge across the Pennar River at Nellore on the National Highway No. 5. The Bridge, when completed, will not only facilitate inter-district communication in all seasons of the year, but also will afford abundant relief to the vast traffic incident on this important National Highway, connecting Madras with all the districts of the Andhra Desa including Rayalaseema.

The design of this major Bridge is marked for its great simplicity, and yet it is the widest Bridge in South India ever built, carrying, as it does, a 32 feet roadway; comprising 22 feet carriageway for vehicular traffic and 5 feet footpaths on either side for pedestrians. It is a reinforced Concrete T-Beam Bridge of 33 spans consisting of 23 spans of 71 feet each and 10 spans of 61 feet each to correspond exactly to the central lines of the piers of the existing Railway Bridge just 100 yards upstream. The length of the Bridge is 2,426 feet, between abutments. The shorter spans of 61 feet are on open foundations resting on hard laterite rock penetrating 2 feet into its core. The larger spans of 71 feet are to be founded on square wells of 2 feet to 2 feet 6 inches thick cement concrete steining with a 7 feet by 7 feet dredge hole, each pier resting on 3 wells covered over by a 2 feet thick capping slab of reinforced concrete.

Stone or brick masonry is dispensed with entirely on this work, and all the piers and abutments are to be of mass concrete 1 : 3 : 6, as can be seen in the picture by the side of the railway bridge. One important feature for special mention is that, in as much as the entire Bridge is of concrete, not a single pie goes out to any other country for either men or materials, and this is undoubtedly a great boon to the people in this economic crisis.

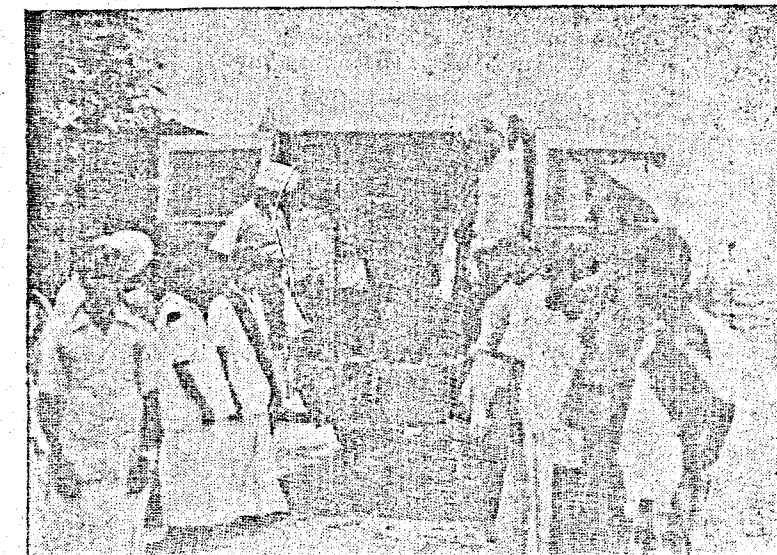
The cost of the Bridge is estimated at Rs. 23 lakhs excluding the approach roads for which a separate estimate is ordered by the Central Government to fit into the Kovur By-pass under contemplation. The entire amount is sanctioned by the Union Government under the Post-War Road Development Scheme.

(Please see pictures on fourth cover page)

Fertiliser Scheme for Chidambaram

The scheme for concentrating the supply of chemical fertilisers in the nine deltaic districts which are commanded by major irrigation projects and river channels, sanctioned by the Government at the instance of the Government of India in order to accelerate food production, has been extended to Chidambaram Taluk of South Arcot District also.

Interior of the Transport Van. In one week ten tons of fish worth Rs. 15,000 were transported.



From Tribe To World Federation

OUR GROWING HUMAN FAMILY

By MINOO MASANI, Oxford University Press.

Pages 116. Price not stated.

"From Tribe to World Federation" is the sub-title of the book under review, and it succinctly describes the scope of the book. Designed on the lines of the author's popular best-seller *Our India*, this story in world brotherhood forms a welcome addition to studies like Van Loon's *The Story of Mankind*, H. G. Wells *Outline of History* and Jawaharlal Nehru's *Letters written to His Daughter*.

It is a sign of the times that more and more humanism in the shape of collective endeavour and co-operative effort is replacing the older nationalistic competition; ideals of inter-dependence are gaining ground over ideas of independence. The numerous offshoots of the United Nations Organization covering every aspect of individual and collective activity, postulate common grounds for the progressive advancement of the human race. In short, the time is ripe for a new approach to the study of mankind, a field hitherto restricted to the religious plane.

The working of the historical process has always been associated with national derring-dos like wars, conquests, successions and outstanding events. To the average school-boy history is a string of dates and mnemonic formulae concerning his own country. In college classes world history becomes tangential lines connecting nations with the mother-country, with particular emphasis on the meet of the circles. Attempts have been made, from time to time, to formulate a people's history, but these have merely turned out to be generalised economic surveys through the ages, punctuated with mob movements.

MONTHLY DIGEST OF ECONOMICS AND STATISTICS

Published by the Economic Adviser to the Government of Madras; containing valuable statistical information relating to a number of subjects including Agriculture, Industry, Public Finance, Cost of Living index numbers, Wholesale and Retail Prices of all important commodities, Imports and Exports, Public Health, Labour, Animal Husbandry, Electricity, etc.

Obtainable from:—

The Superintendent,
Government Press,
Mount Road, Madras-2.

Subscription:

Half-yearly .. Rs. 6-8-0
Per copy .. Re. 1-2-0

Minoo Masani, however, neither loses sight of the trees nor the wood. Out of the vast ocean of details geologic, geographic, ethnic, economic, social, cultural that abound in the telling of the Human Story, he has been able to select the pertinent and the permanent. With these he weaves his tale of Man's origin 50,000 years back from the times of the elemental phases over 2,000,000,000 years ago; 'natural selection' he interprets in the success of survival by mutual aid, proving 'conflict' is the road to death. Man's grouping into tribes for protection from external danger, hunting and for conservation of cattle wealth comes next.

Discovery of agriculture marks the birth of Civilization and the nomads settled down to cultivation. They now had time to think and so evolved religion. The village community was a natural outcome of the bond of common territory, and the 'samiti' or 'Folk-moot' is an instance of early democratic Government. Conquest of agricultural settlements by nomads led to divisions of ruler and ruled, kings and kingdoms, states and empires.

Masani explains the dynastic nature of States as arising out of "the weakening and eclipse of the orthodox religions. This created an emotional vacuum, so some other group or herd sentiment or loyalty had to replace them." Proving that nationalism is not a matter of religion, race, or language, the author claims that "a nation is an accumulation of human beings who think they are a nation". Capitalists used this nationalism as a lever to fight wars designed to break down tariff walls, so that their increased industrial output may have expanded markets. The less industrialised countries of Asia and Africa naturally came under the 'protection' or 'influence' of the industrially advanced western powers who had armed might to back their trade. The problem of empires in turn provoked the 'have-nots' like Germany, Italy and Japan to fight world wars with 'haves' like Britain, France, Russia and America.

This brings the author to the natural corollary of his thesis: ".....no nation has the right to rule another and that the world's riches, its raw materials and its minerals, wherever found, should be shared fairly and equally by all human beings". In the last three chapters of the book "The Shrinking World", "The Federation of the World" and "No Man is an Island", he shapes his case for world government: "The World Federation or Union will be the medium through which the Region will contribute to and share in, the material prosperity and the cultural development of mankind."

One feels that in enlightened times to come, world brotherhood will become a subject for study in schools and colleges. *Our Growing Human Family* will then assuredly be prescribed as a prime text-book. The colloquial but chaste style will lend itself to translation in any language.

The illustrations by C. H. G. Moorhouse in woodcut style have a strength of line with forceful impact on the imagination.
—P. V. S.

OUR IMMEDIATE PROGRAMME

Published by the All-India Congress Committee,
7, Jantar Mantar Road, New Delhi.

Pages 100+viiii Price Rs. 2.

"Our Immediate Programme" is a neatly documented publication which covers the work of the National Planning Conference arranged by the Congress President in New Delhi in April last. In his Foreword, Sri Shankarrao Deo, the Convenor, lists the circumstances which brought about the planning commission: "For some time past the economic situation of the country was causing grave anxiety. In fact, there were signs of a developing economic crisis, high prices, low production and increasing unemployment. More than ever before, the need was felt for an integrated examination of the economy of the country, fixation of priorities and formulation of an economic programme with an eye to our real resources and the aspirations of the people."

On the recommendation of the Congress Working Committee, the Central Government appointed the National Planning Commission. The Working Committee in turn appointed an Economic Planning Sub-Committee consisting of Pandit Govind Ballabh Pant, Sri Shankarrao Deo, Sri Jaggiwan Ram, Sri N. G. Ranga and Sri Gulzarilal Nanda, "to draw up a programme for the country indicating priorities which should be given effect to during the next 12 months; further to indicate in broad outline the nature of a five-year programme; the immediate programme should refer in particular to the past the Congress Organization should play in implementing it."

The April Conference was attended by Chief Ministers of the States or their representatives, Presidents of the Provincial Congress Committees, Members of Planning Commission (by special invitation), members of the Congress Economic Planning Sub-Committee and the leaders Pandit Jawaharlal Nehru, Sardar Vallabhai Patel, Maulana Abul Kalam Azad and Dr. Pattabhi Sitaramayya.

The book under review gives the full texts of the speeches by leaders, and the resolutions adopted by the Planning Conference on (1) Objectives, (2) Agriculture, and Agrarian Reforms, (3) Cottage and Small-scale Industries, (4) Programme of Rural Development, (5) Planned Investment of Cattle, (6) Machinery for Rural Development, (7) Labour and Housing, (8) Controls, (9) Export and Import Policy and (10) Control of Speculation. The detailed Memorandum on the Immediate Economic Programme as generally approved by the Conference, is also given.

The book will form a handy guide of work to all constructive workers, social service organisations, rural reconstruction institutions and administrative officials. Apart from an earnest study of the detailed programme of constructive activities outlined therein, they may also well ponder over Sardar Patel's warning: "If, in the implementation of it you have only to find fault with one another and throw the responsibility on others, then it is all a waste of time. Therefore whatever programme you have made, you must plan for the execution of it."
—P. V. S.

Just Published

"ON THE RED TRAIL"

Exposing the futile policies and desperate tactics of anti-social elements in Madras State.

English, Tamil and Telugu editions available.

Published by the Department of Information and Publicity, Fort St. George, Madras-9.

Price Annas Four.

Happier Homes for Healthy Society.

(Continued from page 21)

right type of officers and of community life are encouraged right from the beginning. With greater facilities it is the intention to make the Home to a larger extent self-sufficient and start similar Homes, i.e., one in Tamil Nad, one in the West Coast and one in the Andhra area, with a maximum strength of 150 inmates and 100 children in each. Each inmate is also helped to save something while in the Home as capital if required when she leaves the institution. Settling them in life, once they leave the Home, is one of the important aspects of work of the field staff. Government have advisedly named the Institution as Service Home for it is just service rendered to these unfortunate women in the hope that they realise its significance, imbibe this spirit and be prepared in turn to serve their fellow sisters placed in similar circumstances.

Having been deprived of homes of their own, it is the earnest wish of the Department to provide them with such amenities and joy that would wake up pity, which the accumulated sufferings of so many women and children admitted have made the Home a holy place so far as the workers are concerned, a constant reminder of what life is, what everyone's share in the world's order is, and the need to discharge one's duty in this connexion in a spirit of service and sacrifice.

Visitors to the Service Home in Rayapuram can see for themselves the happy change that has come over each inmate.

This in brief is the welfare work undertaken by the Women's Welfare Department of the Madras State. Sometimes one is staggered at the magnitude of the task. But when we realise that the need is urgent and the call is from our motherland, nothing shall prevent a band of women workers, dedicated to the cause of bringing about a better state of living conditions in the homes leading to a happier relationship in Society.

(By courtesy A.I.R., Madras).

Visakhapatnam

The Government have directed that the name of the South Visakhapatnam District be changed into Visakhapatnam District, while that of North Visakhapatnam District be altered as Srikakulam District.

Grow More Food Works In Chingleput District

1. *Anicut across Cheyyar River near Uttiramerur.*—Uttiramerur and Tiruppulivanam tanks are two major tanks in Kancheepuram Taluk, dependent on their own catchments and Cheyyar River for their supply and storage. The mud dam, known as Korambu locally, used to be put up across the Cheyyar for diverting supplies into Uttiramerur tank, six miles lower down had to be reformed after every flood, entailing heavy recurring expenditure. An ambitious proposal, known as the 'Uttiramerur Project' for constructing a high anicut at this place for diverting water in Cheyyar not only into Uttiramerur tank but also 45 tanks lower down, has to be given up due to the protests lodged by the lower ryots of Cheyyar supply system.

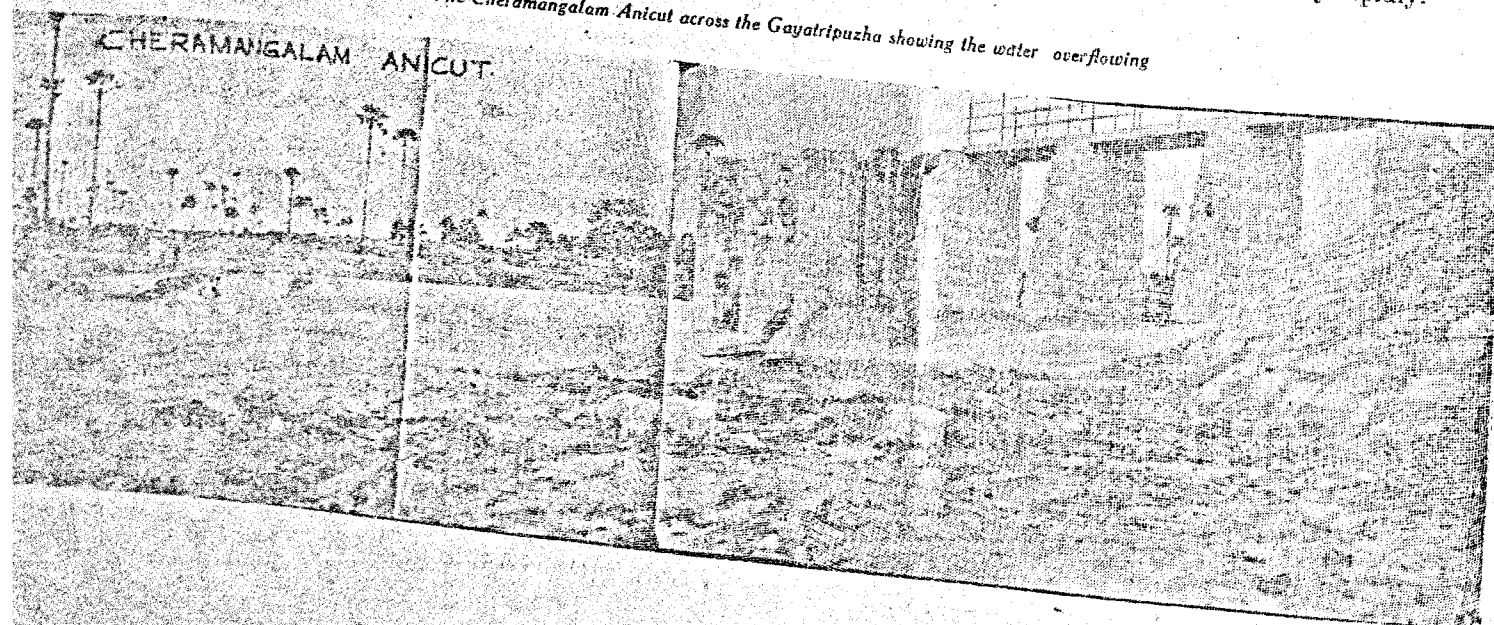
This proposal was modified to the construction of a four feet high anicut to divert only such supplies as received by the Uttiramerur tank so far from Cheyyar after conducting gauging observations through a number of years. This was sanctioned by Government in 1946-47. Work was commenced in 1947 and completed in March 1949 at a cost of Rs. 4.48 lakhs. Unfortunately 1949 was also a bad year with respect to monsoon, and the full benefit of this Scheme could not be realised in 1949. Yet the lower supplies of 40 days duration in the Cheyyar were raised by this anicut into Uttiramerur tank, thereby raising 3,750 tons of paddy as first crop from 5,000 acres of land. But for this anicut, even this achievement could not have been possible, and Uttiramerur tank would have shared the unfortunate fate of its sister tanks in the district.

2. *Damal Kasam and Kasam Channel.*—Damal tank in Kancheepuram Taluk, is a Palar Anicut system tank with an ayacut of 2,314 acres. Besides the Palar supply, a portion of the ayacut, 520 acres, has supplemental source known as Damal Kasam (Spring Pond) located in Ocheri village in North Arcot District. The Kasam and channel

were badly silted up, and ryots under the Kasam pleaded their inability to clear the silt. So the clearance was taken up at Government cost in the month of October, 1949, when crops were four months old and were badly in need of water. Silt clearances were done at a cost of Rs. 8,300 and the result was that crops under the Damal tank over an extent of 500 acres. The result was that 12,000 bags of paddy were procured against the original target of 4,600 bags piers on the condition of supply before the silt clearance to the Damal Kasam and channel.

3. *Musaravakkam Kasam Channel.*—Silt clearance to this Kasam and channel was done at cost of Rs. 14,000. A supply of 1½ to 2 cusecs of supply is available in Kasam channel. With this supply 80 acres of short summer paddy crops are now raised after harvesting is done, additional blocks are taken up by rotation, and there is always a standing crop of 80 acres with the supply made available due to this silt clearance. In the past there was practically no supply in the summer and there was no cultivation at all. Water level is going down just now and arrangements are made to lower the bed of the Kasam further, leaving the channel portion to the ryots. Yield from the 80 acres of ayacut will be 60 tons of paddy for the second crop alone.

4. *Pinayur River Channel.*—This Palar River channel in Kancheepuram Taluk feeds an ayacut of 304 acres directly. Excepting a few wells, there is no other source of irrigation to these 304 acres. The portion of the river channel lying in the river bed itself was completely silted during the 1946 floods. The ryots attempted to restore it for 400 feet, beyond which they found it impossible. Higher up length of 1,500 feet was restored by using a D. 6 bulldozer at a cost of Rs. 5,000. The channel is even now serving about 30 acres at the tail end of the ayacut, though the water level is going down in this summer very rapidly.



The Cheramangalam Anicut across the Gayatriputha showing the water overflowing

Facts Behind Two Cases of Alleged Starvation

The attention of the Government has been drawn to reports of food scarcity and starvation published in certain newspapers. Many of these reports are based on certain incidents which might have occurred in certain places, but have been grossly exaggerated or garbled in order to play up food scarcity and starvation news campaign.

A recent instance is the report of a woman having sold her child due to lack of food, featured in the "Mail" of 12th August 1950. In order to verify the truth of the story, an Officer of the Information and Publicity Department was deputed to proceed to the spot and make first hand enquiries and gather correct information. The Officer was not alone; an M.L.A. was also with him during the investigation.

The report was about a Gounder woman of Neeligoundanpalayam in Avanashi Taluk of Coimbatore District, having sold her child to a Harijan family. These are the facts that came to light as a result of the investigation.

Karunai Ammal, the woman who sold her child, is a healthy middle-aged woman of 30. She has two other children, a boy of about ten years and a girl of about seven years; both of them have not been with her for a long time. The two children have come to her only recently after the death of her husband which happened a few days after the "sale" of the child. The two children are working and bringing their earnings to their mother and are obviously not being looked after by her. Her husband, who died a few days after the incident, was old and had been ailing for a long time. But Karunai Ammal does not seem to have attended to his comforts. During the last days, the old man was left alone and helpless. The woman had been earning a daily wages of about eight annas by fetching and supplying water to shops and shandies. This is the work she had been doing all these years and no sudden change in her circumstances could have been brought about as this work was still open to her.

The Harijan family to whom the child has been given is a decent honest family of cobblers with a monthly income of about 100 rupees. Palani, the cobbler, and his wife now married for 25 years, have no child of their own and are bringing up Vecramma, a daughter of one of their relatives. The cobbler's wife was therefore only glad to take and bring up the child whom Karunai Ammal was so eager to get rid of. Karunai Ammal is now again in family way. It is understood that she has promised to hand over that child also after delivery to the Harijan family. The woman herself had a ration card No. 426637 in the name of her late husband and for three adults and three children. Her ration card showed that her ration, 63 units per week, had been bought regularly throughout the months of June, July and August and that in May even the sugar quota had been bought.

These details give the impression that the "sale" of the child was not forced on her by poverty or starvation but because the child was an encumbrance to her in her way of life.

Facts Behind a Suicide Case

Another case in which a similar report twisting the facts to show up a suicide by a woman as due to lack of food,

Husband's Renunciation Led to Wife's Suicide

Messrs. K. S. Nataraja Gounder, M.L.A., Dhara-puram, M. A. Easwaran, M.L.A., Erode, and V. K. Krishnaswamy, Secretary, Dharapuram Taluk Congress Committee, have issued the following statement to the Press:

"In connexion with a press report alleging that a woman and her two children driven by starvation had committed suicide by falling in a well at Etivalasu village in Dharapuram Taluk, we visited the spot on 28th August 1950.

"We made detailed enquiries and questioned the inhabitants of the locality including the husband of the woman figuring in the news item.

"It appears that three years ago the husband of the woman renounced the world and has been living separately since then. The woman, Ramal, working as a cooly, was maintaining the family consisting of herself and her two children. Occasionally she used to visit her husband taking with her groundnuts. The last time she saw him was the evening on the day of this incident. It was on the same night she committed suicide along with her children by drowning in the well.

"We gather that all these three years the woman had been persuading her husband to take some interest in the family and finding that her attempts were in vain she had come to this decision.

"Till the last day she had drawn her rations from her ration card. We find that these deaths could not be due to starvation.

"It would therefore appear that failure in her efforts to bring her husband back to family life made her broken-hearted and drove her to this end."

also came under investigation. Two M.L.As. of the District were with the Officer who went to enquire into the facts.

This happened a few days back in Reddipalayam, a hamlet near Vellakoil village in Coimbatore District. A woman threw her two children into a well and committed suicide. This was reported by the same paper as being due to starvation. Our enquiries revealed that one Subba Chakli, the husband of Ramal, the woman who committed suicide, renounced worldly life and became a Swamihar. Since that time he had not been visiting his home or giving his wife any money. His wife used to gather twigs and Kilingi leaves and from the meagre earnings maintain herself and her two children and also occasionally take groundnut and milk for her husband, whose diet after he

became Swamiar was only groundnut, tender coconut, fruits and milk.

Enquiries made among the neighbours of Ramal show that she had been eating and feeding her two children regularly. The sisters of Subba Chakli, her husband, who were also neighbours, testify to this fact. Her ration card No. A-31-3412 for three adults and one child shows that her full ration was being bought regularly. The neighbours also testify to the fact that when the bodies were taken out of the well they did not look famished or starved. It is, therefore, to be gathered that the suicide was not due to starvation or poverty but due to her disgust with her life due to her failure in bringing her husband back to family life.

These exaggerated and twisted reports are only two of a variety which are used in a general campaign in a section of the press, of creating alarm and scare, with regard to the food situation and to support a particular stand taken by that section. Such reports, while they may contain half-truths and may even sound credible, do not help to improve the situation, much less do they tend to create the necessary confidence and faith in people even if there be an impending crisis. It is not always possible for Government to investigate every report published in the press, but if they are investigated many more truths, which are far from what is imputed in the reports, may come to light. It is for the people to judge whether such stray cases should be used for propaganda of a particular type which is not conducive to the common weal.

THIRD COVER

First row (left to right): 1. Karunai Ammal, the woman who gave away her child. 2. Kuppusami, the child. He lost and found a mother. 3. The Harijan woman and the adopted child. A childless woman but a mother at heart.

Second row (left): The Harijan family—Palaniappan, his wife with the adopted baby Kuppusami, and Veeramma, a relative who is being brought up by them.

Second row (right): Subbachakli, the husband of Ramal who committed suicide.

Third row (left): Subbachakli and his sisters. His sisters were Ramal's neighbours. (Right) The neighbours of Ramal—they all testified to the fact that she was not starving.

Why the Child Was Given Away

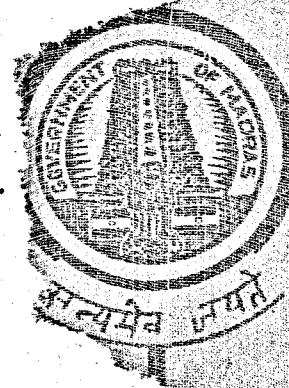
Sri M. A. Easwaran, M.L.A., Erode, has issued the following statement:

In the second week of August 1950, while the food debate was going on in the Assembly, I found the news in the Mail, dated 12th August 1950, that one Karunaiakkal, wife of Chennimalai Gounder, sold her two year-old child for Rs. 5 to a Harijan by name Palaniappan in Avanashi. I was very much surprised and I was anxious to find out the truth.

On reaching Avanashi we met the Harijan Palaniappan with the two-year old child, which he got from Karunaiakkal. The child was healthy. I found from the Harijan that he has no issues and that he wanted very much to adopt a male child. When the Gounda woman approached them the Harijan family was only too glad to take the child. Then I met Karunaiakkal; she looks hale and healthy and it was obvious that it could not be starvation or want that compelled her to part with the child.

She has other two children, a boy and a girl; the boy aged about ten and the girl about seven. The boy is working in a farm getting about six rupees a month and one meal a day. The girl was with the grandmother and now she has come back to her mother, Karunaiakkal. She is living in a small hut in a flourishing farm, which belongs to the Secretary, Harijan Youth, Avanashi. I learnt that for some time past she was not on good terms with her husband Chennimalai Gounder and she was living separately. Chennimalai Gounder who was about 55 years, died very recently. Karunaiakkal is aged about thirty. She was earning about 12 annas a day by daily labour such as supplying drinking water, etc. She has drawn rations in her ration card regularly. She did not seem to be starving at all and there was no occasion to sell a child out of hunger, or for her to starve. She used to go to weekly market in Avanashi to supply drinking water to the people who go to the Shandy. This Harijan is a shoemaker living in Avanashi town proper. I learnt he earns about 3 to 4 rupees a day. I also understood that the lady Karunaiakkal is carrying. She would appear to have promised to give away the child to be born also to the Harijan family.

After visiting the place, seeing things for myself, and meeting the parties concerned, I am firmly convinced that it was not due to starvation or want that the woman parted with her child but due to some other personal reasons. I am only sorry to find that at this time, when our people should have more courage and self-confidence, stories like these which tend to dishearten and depress people should be given wide publicity; without reference to actual facts.



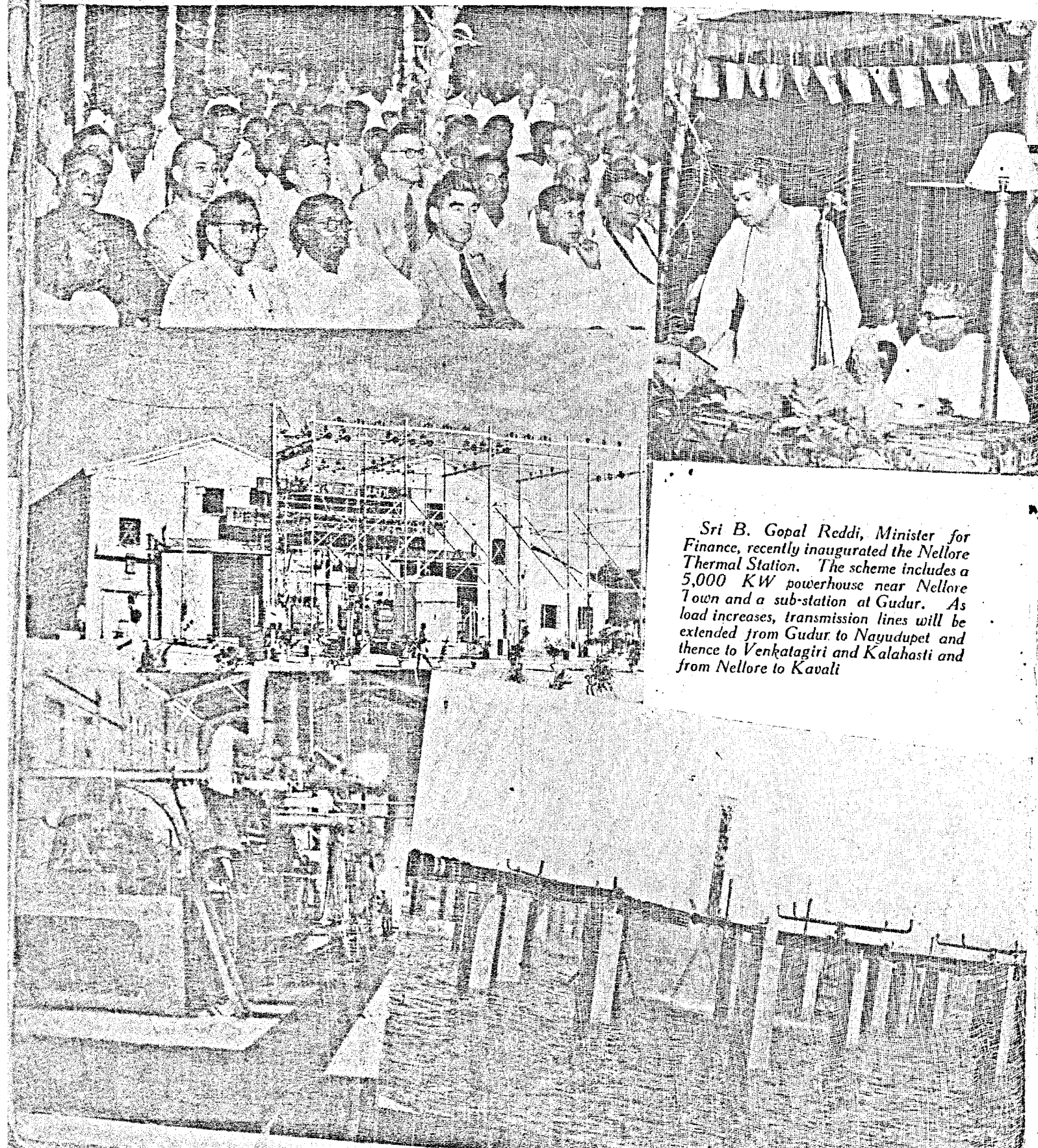
MADRAS INFORMATION



VOL. IV. NO. II

MADRAS
NOVEMBER
1950

Price, As. 3



Sri B. Gopal Reddi, Minister for Finance, recently inaugurated the Nellore Thermal Station. The scheme includes a 5,000 KW powerhouse near Nellore Town and a sub-station at Gudur. As load increases, transmission lines will be extended from Gudur to Nayudupet and thence to Venkatagiri and Kalahasti and from Nellore to Kavali

Madras Information

Published every month by the Director of Information and Publicity
Fort St. George

244

Vol. IV, No. II

"WE SEEK TO SERVE AND NOT TO COMPETE"

November 1950

CONTENTS

PROGRAMMES—

- | | | |
|--|---------|---|
| 1. Development of Rayalaseema—By Sri H. Sitarama Reddi | | 3 |
|--|---------|---|

FOOD—

- | | | |
|---|---------|---|
| 2. Food Position in South Arcot District | .. .. . | 6 |
| 3. Food Offences and Punishments Awarded | .. .. . | 7 |
| 4. Farming in the West—By Sri R. V. Swaminathan | .. .. . | 8 |

AGRICULTURE—

- | | | |
|-----------------------------|---------|----|
| 5. Wealth from Waste | .. .. . | 10 |
| 6. Plant Protection Service | .. .. . | 12 |
| 7. Agricultural Round-up | .. .. . | 14 |

FINANCE—

- | | | |
|---------------------------------|---------|----|
| 8. Policy of Public Expenditure | | 16 |
|---------------------------------|---------|----|

ANIMAL HUSBANDRY—

- | | | |
|---|---------|----|
| 9. The Palayakottai Cattle Farm—By Sri N. Nallasenapathi Sarkarai Manradiar | | 20 |
|---|---------|----|

CULTURE—

- | | | |
|--|---------|----|
| 10. The Lepakshi Temple—By Sri Kalluri Subba Rao | | 24 |
|--|---------|----|

PROHIBITION—

- | | | |
|-------------------------------|---------|----|
| 11. Palm Gur Development Work | | 26 |
|-------------------------------|---------|----|

RURAL RECONSTRUCTION—

- | | | |
|--|---------|----|
| 12. Rural Welfare and Village Planning—By Sri M. Bapineedu | | 28 |
|--|---------|----|

EDUCATION—

- | | | |
|---|---------|----|
| 13. Literacy and Adult Education—By Sri J. L. P. Roche Victoria | .. .. . | 30 |
| 14. Boosting the Child—By Sri T. P. Santanakrishna Naidu | .. .. . | 33 |

IRRIGATION—

- | | | |
|--|---------|----|
| 15. Schemes and Investigations Sanctioned | .. .. . | 35 |
| 16. List of Donors to the Manimuthar Project | .. .. . | 37 |

POWER—

- | | | |
|--------------------------------|---------|----|
| 17. The Nellore Thermal Scheme | | 39 |
|--------------------------------|---------|----|

CO-OPERATION—

- | | | |
|------------------------------|---------|----|
| 18. The Artisans of Quilandy | | 40 |
|------------------------------|---------|----|

COVER PAGE: The picture on the cover page and the two illustrations on pages 24 and 25 are modern paintings in the Lepakshi style, and reproduce faithfully the genius and technique of these Vijayanagara murals in composition, line, form and pose.

Development of Rayalaseema

By SRI H. SITARAMA REDDI, Minister for Land Revenue and Labour

A visit to the work that is going on on the banks of the Tungabhadra to control and divert its rich waters for the benefit of the famine-stricken area will more than compensate the inconvenience. Apart from its economic value to this area, it is an excellent piece of engineering work planned and being executed by our Engineers; a set of people of whom we can be justly proud for their ability and patriotism. For the people of the Rayalaseema, this Project is a happy fulfilment of what was once a dream. Like the light that has a shadow, this great beneficent work is going to cause distress to the inhabitants of 38 villages. There is indeed a difficult lot and in the interests of the large section of humanity, it has been necessary to sacrifice the comforts of a small section of the people. But the Government are fully alive to the difficulties of these people, and this is the first time a State Government has not merely proposed to give compensation on the basis of the value of the land and the houses that are taken over, but has planned and propose to execute positive relief to make the lives of these displaced persons happy and prosperous. The co-operation of the displaced persons and the other people of the area is essential to make the rehabilitation proposals achieve the desired result. The Government propose to settle these people in a way that will be a guidance for other works of a similar nature undertaken already or to be undertaken.

It may be useful to survey briefly the several stages of the development schemes of importance in Rayalaseema. These developments are in no small measure due to the efforts of this Board and its predecessor.

IRRIGATION: Tungabhadra

Tungabhadra, a post-war project intended to relieve areas affected by famine in Bellary and Kurnool Districts of Madras and areas of Hyderabad State, will have a dam 6,000 feet long. The Dam construction is actively going on and the foundations of the Dam have almost been completed for the entire length. In some reaches, the Dam has risen to a height of 38 feet above foundations. About one-tenth of the total masonry has been completed so far. The progress has to go hand in hand on both sides. The main Canal on the Madras side will be 225 miles long and it will command three lakhs of acres. Nearly 129 miles have been completed and work is in progress in another 41 miles. The total length of the major and minor distributaries will be about 1,700 miles. Action is being taken to acquire the lands required for these channels and field bothies. Side by side, the several cross-masonry works along the canal are also being executed. The important structure along the canal, i.e., the Nagari Aqueduct is about 60 per cent completed.

Localisation of ayacut has been started. It was done as an experimental measure under two distributaries and will be extended to others gradually after orders of Government are passed on the proposals sent for the lands under the two distributaries. The Project is programmed to be completed by 1953. Water will, however, be made

available for irrigation a year earlier when impounding will commence. The Rayalaseema Development Board recommended the taking up of High Level Canal as soon as the Low-Level Canal is completed and this is now under the consideration of the Government. On the recommendation of the Board, the Government have dropped the idea of having all wet scheme. An enactment has already been passed to prevent speculation in the purchase of lands in the Project area and the needed amendments to the Act are also being actively pursued.

Pennar and other Projects

As regards the other Projects, the several stages of each Irrigation Project is being watched, viz., Pennar-Kumudavathi Project, Upper Pennar Project, Bhairavanitippa Project, Sagileru and Gandikota Projects. The Pennar-Kumudavathi Project which has been sanctioned at an estimated cost of about Rs. 20 lakhs, will augment supply to Parigi tank and seven others rainfed tanks in Hindupur (Anantapur District) and will irrigate 3,130 acres. A Special Subdivision was sanctioned by Government for a period of one year for attending to the preliminaries connected with the execution of this project. The Subdivision which was formed on 28th May 1950 has completed a part of the preliminary work, viz., alignment of channels, flood-banks, etc., while the preparation of land plans and tender schedules for the work is nearing completion. The actual execution of the Scheme is expected to be taken up shortly after all the preliminaries are completed.

The Upper Pennar Project has been sanctioned by Government recently at an estimated cost of Rs. 83,90,000 and the Chief Engineer (Irrigation) was instructed to commence the execution of the work immediately. The Scheme involves the construction of a reservoir across the Pennar in Perur village, Dharmavaram Taluk, and is expected to irrigate about 6,000 acres new ayacut, mostly on the right side of the river in Dharmavaram and Kalyandrug Taluks, Anantapur District. The Bhairavanitippa Project which is estimated to cost about 82 lakhs for the construction of a reservoir across the Hagari will irrigate 8,000 acres in Rayadurg Taluk of Bellary District and Kalyandrug Taluk of Anantapur District. The plans and estimates in respect of this Project have been received and are under examination by Government. The Gandikota and Sagileru Projects are still under investigation by the Chief Engineer (Irrigation).

The investigation of the Mid-Pennar Project is expected to be completed in a short while. The Board also considered one of the proposal of Sri P. V. Subba Rao, viz., digging of wells at Government cost for irrigation purposes and recommended to Government that the scheme may be tried in obviously suitable places in the Rayalaseema districts. This is under the consideration of the Government. Trial borings with a power drill are being done in the Mahanandi area of Kurnool District.

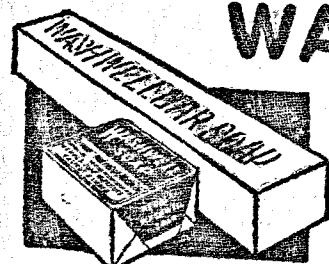
CAN YOU WASH WITH POTATOES?

Of course, if you rub hard enough, a potato, or even a lump of chalk will get clothes clean—unless you rub them to shreds first! It costs less in the long run, though, to eat potatoes, use chalk on the black-board and to wash with pure soap.

The common soap substitutes, loaded with chalk or potato-flour "fillers" only waste labour and destroy clothes.



KERALA WASHWELL



PURE BAR SOAP

KERALA SOAP INSTITUTE
CALICUT
Department of Industries & Commerce
GOVERNMENT OF MADRAS
SISTA'S-KS-6

Besides the normal staff employed in the Public Works Department for the upkeep of the works and the investigation of new Irrigation Schemes, two Special Sub-divisions, one at Anantapur and one at Chittoor, for investigating T.R.S. Works, have been formed and are doing useful work.

FOOD PRODUCTION : Tank Improvement

One Food Production division and four Sub-Divisions have been sanctioned for the Rayalaseema area and the staff is employed on the investigation and execution of works under the Tank Improvement Scheme, viz., Repairs and improvements to Minor Irrigation Tanks both in Ryotwari and Zamindari areas. The allotment sanctioned so far for 1950-51 for this area is Rs. 8 lakhs ; 143 works have been sanctioned so far out of which 80 works have already been taken up for execution.

The maintenance of Minor Irrigation Works in a high state of efficiency has been a matter of great interest to the present Government and a very liberal budget provision is being made for this purpose. A sum of Rs. 9.59 lakhs has been allotted for expenditure on the maintenance and repair of Minor Irrigation Works in the Rayalaseema districts in the current year. The total number of works proposed for execution in the year is 928. Of these, estimates have been prepared for 584 ; 168 works have been completed and the other works are in progress. Besides the routine maintenance of minor irrigation sources, a special effort is being made to renovate small tanks. The Government have sanctioned special staff consisting of one Minor Irrigation Supervisor and two to three Minor Irrigation Overseers in the districts of Cuddapah, Anantapur and Kurnool for the investigation and renovation of small tanks with an ayacut of ten acres and less.

ELECTRICITY : Bulk Power from Jog

The Ceded Districts Scheme for distribution of bulk power from Mysore Jog Scheme in Bellary and Anantapur Districts was originally sanctioned by Government in July 1946 for Rs. 50 lakhs. Due to increased cost of materials, the Government have recently sanctioned a revised estimate for Rs. 75.84 lakhs. Supply under this scheme commenced on 7th June 1949. One thousand K.W. of power is now being supplied to Kudligi, Hagari-Bommanachilli, Tungabhadra Dam Site, Hospet, Bellary and Adoni. The 66 K.V. Line from Hospet to Bellary was completed and energised on 23rd March 1950. The Bellary-Adoni 11/33 K.V. Lines were completed and supply to Rayalaseema Textiles at Adoni was given on 30th March 1950. Mysore power was supplied to Bellary Municipality on 6th May 1950 and the Municipality was taken over by Government on 10th May 1950. As the Hyderabad Government wanted power for construction requirements of their Dam Works, the Madras Government agreed to give 600 K.W. of power for a period of two years. Supply was commenced to them on 20th July 1950.

Extension of 66 K.V. line from Bellary to Guntakal has been completed recently. The construction work in respect of the Sub-Stations at Sokke, Kudligi, Tungabhadra Dam Site and Bellary have been completed. The works on Guntakal, Alur and Adoni Sub-Stations are nearing completion. The extension of 11 K.V. line from Bellary to

Hagari Water-Works is in progress. Work on Kottur and Guntakal distributions are in good progress. Bellary-Rayadrug 11/33 K.V. line has been taken up. Arrangements are being made to give bulk supply to Adoni shortly.

Eleven extensions for supply to agricultural and industrial loads costing Rs. 17.29 lakhs have been sanctioned so far. Work on some of these extensions has already been taken up. Extension of supply to Bennakally, Paramadevanahalli, Molagavelli, etc., are under finalisation. Extension of supply to Yemmigannur has been investigated and extension would be feasible only if the advance construction of 33 K.V. lines and 11/33 K.V. Sub-Station at Yemmigannur which forms part of Tungabhadra Hydro-Electric Scheme is approved by Government. Investigation of extensions to Kosigi, etc., villages in Alur Firkas are to be taken up shortly.

Government have also sanctioned schemes for the installation of diesel engine sets at Tadpatri and Nandyal. The sites have been handed over to the Electricity Department and the preliminaries have already been commenced. Another Scheme for the installation of a diesel engine set at Madanapalle has also been sanctioned by Government recently. The Government have sanctioned an estimate recently for Rs. 1,22,900 for extension of Mettur Supply to Ramanagar. Another proposal for extension of Mettur supply to Agaral has been sanctioned by Government.

Under the Madras Electricity Supply Undertakings (Acquisition) Act, 1949, the Government have drawn up a programme for the acquisition of all local body and private electric supply undertakings in the State. Out of the eight private undertakings in Rayalaseema, five have already been taken over by Government. The remaining three to be acquired are the undertakings at Adoni, Hospet and Proddatur. Hospet and Proddatur undertakings will be taken over immediately and Adoni, which is included in the second batch of undertakings, will materialise at an early date.

The Board recommended to Government the immediate sanction of the Hydro-Electric Scheme connected with the Tungabhadra Project. The Scheme which is estimated to cost 733.01 lakhs of rupees, covers the four districts of Cuddapah, Bellary, Anantapur and Kurnool. This has been approved by the Government and orders sanctioning it will be issued shortly. The Hindupur Scheme providing supply of Mysore power in and around Hindupur was sanctioned by Government and the switching on ceremony of Mysore Power Supply was done on 30th June 1950. The question of extending electric supply to the selected Firkas at Alur, Kurnool and Hindupur is under consideration.

INDUSTRIES : Exploiting Mineral Wealth

The Rayalaseema districts abound in rich mineral wealth which have not been fully investigated. The geological survey so far undertaken by the Government of India has been sporadic and it was only recently that a new Circle has been sanctioned for the Madras Zone for purposes of examining the water table and mineral deposits. Pursuant to the recommendation of the Board, the Madras Government have addressed the Director, Geological Survey of India, requesting that the staff of the Geological

Survey of India which has been allotted to the Rayalaseema area may not be diverted elsewhere and that the number of Officers-in-charge of the Ground Water Division may be strengthened.

The Board recommended to Government the starting of paints and lithopone factories at Cuddapah and a cement factory at Kurnool, as private enterprise to start these industries is not forthcoming. Government have appointed Sri P. Gopal Rao, Managing Director of Messrs. Jyothi Paint and Varnish Industries, Madras, for a period of three months to prepare a project report in connexion with the starting of paints and lithopone factories and his report is awaited. The Rayalaseema Textiles Mills, Adoni, which is one of the pioneer enterprises in this area, was inaugurated on 30th March 1950.

AGRICULTURE : Cotton and Paddy Research

The Agricultural Research Station at Nandyal, Siruguppa and Hagari have been carrying on experiments for evolving suitable strains for the soils under both irrigated and unirrigated conditions in black cotton and red soil area. The question of starting an Agricultural Research Station at Dharmavaram for evolving improved strains of paddy for red soil areas was once considered and deferred by the Government and is again coming up for consideration by the Rayalaseema Development Board. As regards the establishment of canning industry at Kodur, the Agricultural Department is making progress and the Government have sanctioned the purchase and installation of a water tank for the Laboratory. Soil Conservation is also of special importance for this area. The work of Contour Bunding (sanctioned by Government) of 7,500 acres in the three centres at Hagari, Alur and Guntakal has been taken up and is rapidly progressing.

Government have also sanctioned special staff for conducting Soil Survey in 17 selected sites in the Ceded

Relief for Assam

The people of the Government of Madras have heard with deep distress of the recent devastation caused in Assam, and our heartfelt sympathies and condolences go to the unfortunate people of that Region. Large sums of money are needed to provide the necessary relief and His Excellency the Governor of Assam, as you all know, has opened the Assam Earthquake Relief Fund. I would earnestly appeal to the public of this State to contribute as liberally as they can towards this object and help to alleviate the suffering in our sister State of Assam. I am sure the citizens of this State will respond generously to this cause.

Contributions may be sent to the Collectors of the districts who have been authorized to collect and forward all such donations.

KRISHNA KUMARSINHJI,
Governor of Madras.



The State of Assam is the abode of so many picturesque tribes. Their primitive customs, gay dresses and their impressive dances constitute enormous material for the sociologist and the scholar. These tribal people from the Assam Valley have been uprooted due to the recent earthquake which has been described as one of the biggest in history.

Districts in order to ascertain their suitability for fruit cultivation with reference to sub soil-strata. The District Development Committees which were constituted at the instance of this Board, have already started functioning and are doing useful work at the district level.

These are the various important features of the development of Rayalaseema that are being pursued. It is too soon to adjudge the achievements of the Development Board. With continued sympathy from the public towards these depressed areas, it is possible to achieve good results. The speedy removal of the handicaps of the area will depend on the vigour with which the local people co-operate with the Government and with the work of the Development Board.

Adapted from the speech delivered by Sri H. Sitarama Reddi, Minister for Land Revenue and Labour, Madras, at the Fourth Meeting of the Rayalaseema Development Board held at Hospet on 3rd October 1950.

Food Position in South Arcot District

Sri O. P. Ramaswami Reddiar has chosen to send a second statement to the Press on the food position in South Arcot District, in which he has criticised the reply of the Board of Revenue, Civil Supplies Department, to his first statement to the Press. I have since toured in South Arcot District in Gingee and Tindivanam Taluks, inspected a number of ration shops and questioned the ryots. I have also examined the figures of supply of rice and millets to the rural ration shops during the past few months. I am now able to say with first-hand knowledge that South Arcot District, in spite of its having exported 6,900 tons of rice and 1,000 tons of millets during this *kharif* year, did not feel any difficulty in supplying the rural ration shops and in catering to the needs of the villagers, except perhaps for the first two weeks in September. During these two weeks, the rice portion of the ration in rural areas had, of course, to be cut down to three ounces. I have examined the stocks of rice and millets in the district at present and I have also seen the actual stocks in various ration shops now. It is now possible to give the full overall ration of 12 ounces, making up any deficiency in the rice portion with wheat and millets.

I personally found that harvest of ragi and cumbu has commenced in these taluks. Consequent on this I actually found stocks in rural ration shops lying unsold, the villagers having gone for harvest; and naturally, the landowners will get the harvested produce and the agricultural labourers their wages in kind. The rainfall during the South-west Monsoon this year has been satisfactory in this district and millet crops have fared well.

FOOD MINISTER'S SURPRISE VISIT TO RATION SHOPS

Sri J. L. P. Roche Victoria, Minister for Food, accompanied by the City Rationing Officer, paid surprise visits to some of the ration shops in the Thousand Lights area—one of the busiest market centres in Madras City. At these shops the Minister examined the quality of rice, sugar and other rationed articles supplied to the people and enquired from those congregated there, as to the procedure adopted in the supply of rations. He also asked them whether they had any complaints to make to him personally. Picture shows the Minister examining the specimen rice displayed in bottles at one of the shops he visited.



Sri O. P. Ramaswami Reddiar has asked which Food Committee it was that requested the export of rice from the South Arcot District. It is the Food Committee of the South Arcot District which in its resolution passed at its meeting held on 29th March 1950 that asked for the export of rice from the district. The stock in the district at that time was 19,052 tons which would ordinarily have been sufficient for internal consumption in the district for six months. As huge stocks accumulated with the wholesale merchants, difficulty for godown accommodation was felt; and merchants also had difficulty because much capital was locked up. Similarly, the same Food Committee, earlier in the year, in its resolution passed at the meeting held on 31st October 1949, pressed for export of millets from that district.

I am able to state that the food position in South Arcot District at present is satisfactory. Any shortage in the rice contents of the ration in rural areas will disappear in the course of two or three weeks as the harvest of sornavari and kuruvai paddy in other parts of the district advances.

J. L. P. ROCHE VICTORIA,
Minister for Food and Fisheries.

Bengal Gram

The Government of India have promulgated with effect, from the 17th August 1950, price control over bengal gram fixing a maximum price of Rs. 13 per imperial maund in all surplus areas and of Rs. 16 per imperial maund in all deficit areas like Madras State. A large number of enquiries regarding the effect of this price control on gram are being received by this Government. The Government therefore desire to make clear certain points regarding which clarification has been sought for.

- (1) The maximum price fixed by the Government of India is applicable to wholesale or retail sale of all varieties of bengal gram whether indigenous or imported from Pakistan or any other foreign country, except that it is not applicable to Kabuli and Gulabi varieties of gram.
- (2) The maximum price is not applicable to gram products.
- (3) The maximum price includes all incidental charges and local taxes such as sales tax, etc.
- (4) The maximum price will take effect from the 17th August 1950.

Women's Food Council

The Government of Madras have constituted a branch of the All-India Women's Food Council in the Madras State, under the Presidentship of Her Highness the Maharani Saheba. Branches of the State Women's Food Council, Madras, are being formed in the districts.

The main objective of the Council will be to render assistance to the Government in the execution of schemes relating to production, utilisation and consumption of supplementary foods.

Food Offences and Punishments Awarded

During the fortnight ending 15th July 1950, 279 cases of prosecutions were disposed of in Madras State.

Particulars of cases in which heavy punishments were awarded in the districts are described below:

Malabar.—Pisharathkolambil Kombi, Chelavvur amsom, was fined Rs. 500 with four months' rigorous imprisonment in default, for failure to sell surplus paddy.

(ii) Ullattil Mayan, Velamban amsom, cultivating landholder, was fined Rs. 300, for failure to sell surplus paddy.

West Godavari.—Cheemakurti Subba Rao of Venkata Krishnapuram, was convicted and sentenced to pay a fine of Rs. 300 in default to undergo rigorous imprisonment for two months, for illicit transport of rice without a permit.

Salem.—Vydingalingam and Marimuthu Mudali, were each fined Rs. 200 with two months' rigorous imprisonment in default, for illicit import of foodgrains.

During the same fortnight other departmental punishments such as warnings, fines, forfeiture and enhancement of security deposits, cancellation of retail and wholesale licences, etc., were also awarded to persons who were dealing in foodgrains in 147 cases: one in Chittoor District; two in South Arcot District; three in Tanjore District; four each in East Godavari, South Kanara and Nilgiris Districts; seven in Tirunelveli District; eight in Coimbatore District; nine in Ramanathapuram District; 18 in Madras City; 20 in Visakhapatnam District; 28 in Malabar District; 39 in Madurai District and nil in other Districts.

Food Offences during the Fortnight ending 31st July 1950.

During the fortnight ending 31st July 1950, 770 cases of prosecutions were disposed of in Madras State.

Particulars of cases in which heavy punishments were awarded in the districts are described below:—

Tanjore.—Nelliappa Nadar, merchant, was fined Rs. 20 in default simple imprisonment for two days, for failure to run business in licenced premises, Rs. 800 in default simple imprisonment for two weeks and with rigorous imprisonment for one month for failure to issue receipt, and Rs. 200 in default simple imprisonment for two months for non-maintenance of accounts.

Krishna.—In one case Myneni Gopalakrishnaiah and Myneni Nageswararao, partners of Sri Ramakrishna Rice Mill, Vuyyur, who sold rice in the black-market to the consumer direct from the mill possessing no licence for the purchase, sale or storage for sale in wholesale quantities, were convicted and sentenced to undergo rigorous imprisonment for six months and in addition to pay a fine of Rs. 500 each and in default to simple imprisonment for two months under each of the two counts, the sentence of imprisonment in the two counts to run concurrently.

In another case T. Basavaramaiah and Ch. Veeraraghavaiah were each sentenced to undergo rigorous imprisonment for six months and also to pay a fine of Rs. 200 or in default to suffer simple imprisonment for two months, and M. Narayanamurthy, K. Satyanarayanamurthy and Sheik Subhan Saheb were each sentenced to undergo rigorous imprisonment for six months for issue of incorrect bill for the rice and broken rice issued from the Dhanalakshmi Rice Mill, Tarigoppala, where they were employed.

Malabar.—V. Nanu alias Narayanan, was fined Rs. 200 or in default to undergo rigorous imprisonment for four months, for illegal transport of paddy.

P. Moideen was fined Rs. 200 or in default to suffer rigorous imprisonment for three months, for furnishing false information to the enumerator and excess drawal of ration for one adult for six months.

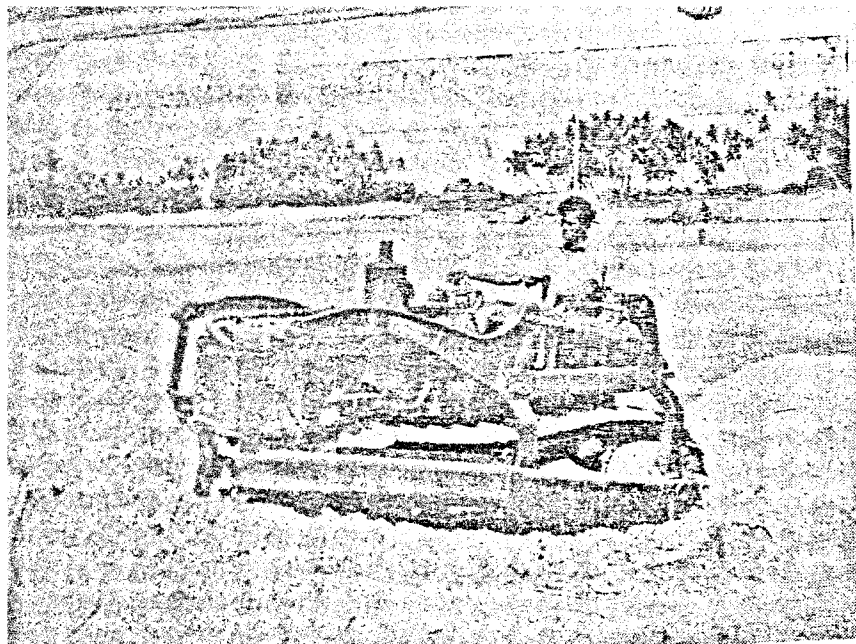
Visakhapatnam.—K. Chittamma, wife of Appanna, Anakapalle, was fined Rs. 200 for having stored paddy without a permit.

K. Veenasingh, ex-proprietor, Hananadh Vilas, Anakapalle, was sentenced to pay a fine of Rs. 200 in default to suffer simple imprisonment for one month, for the storage of 169 seers of rice, 348 seers of wheat and 1,000 seers of paddy without any permit.

Tiruchirappalli.—Ramaswamy Udayar, Padmanabha Udayar, Ramakrishnan, Kalliammal and Vellappa Goundan were each fined Rs. 200 with two months rigorous imprisonment in default, for illicit import of foodgrains.

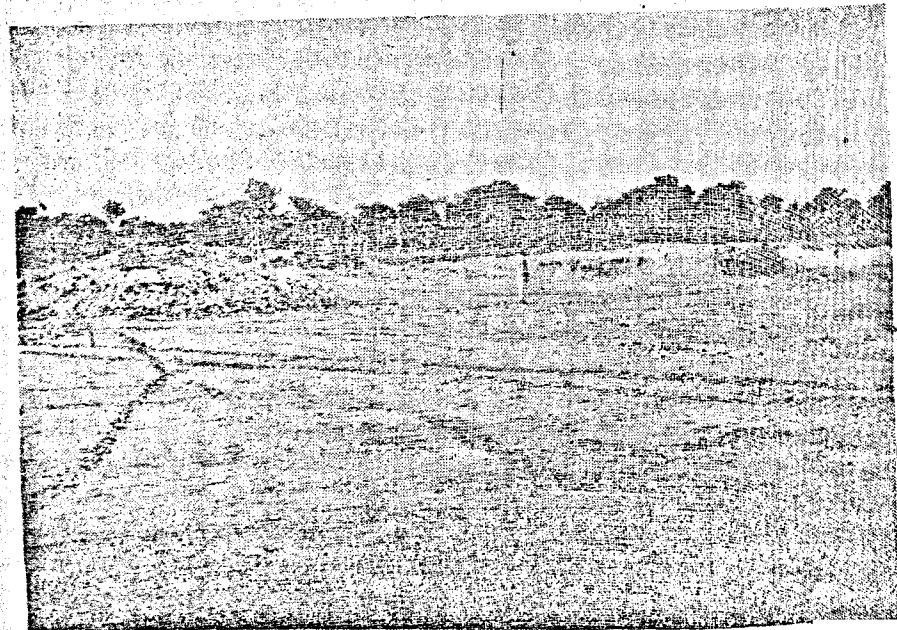
Madras City.—Chermarajan, son of Arumuga Nadar, commission agents, 139, Mint Street, was fined Rs. 500 in default two months' rigorous imprisonment, for possession of 22 bags of Australian maida got illicitly.

During the same fortnight other departmental punishments such as warnings, fines, forfeiture and enhancement of security deposits, cancellation of retail and wholesale licenses, etc., were also awarded to persons who were dealing in foodgrains in 145 cases, one each in South Arcot, Nellore and Tiruchirappalli Districts, two in Salem District, three in Ramanathapuram District, four each in East Godavari and Chittoor Districts, six in Tirunelveli District, eight in Guntur District, 12 in Tanjore District, 14 in Coimbatore District, 15 in Malabar District, 16 in Madras City, 17 in Anantapur District, 41 in Visakhapatnam District and nil in other Districts.

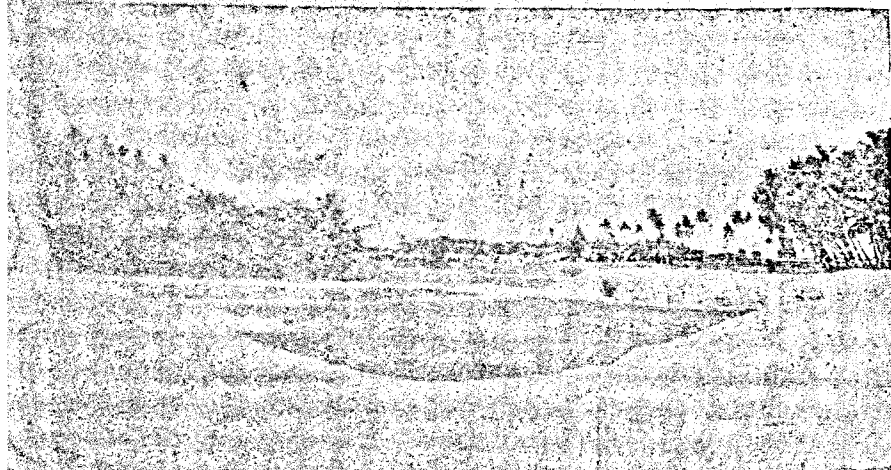


Food Production efforts

Bulldozer at work



After levelling



Under cultivation.

NUTRITION

Our Food

What it Contains

It is an elementary fact that the dietetic value of food depends not in the quantity taken, but on the quality and the ingredients. In recent times, there has been a greater emphasis on a 'balanced diet' as a contributory factor to normal health. It is proposed in this article to deal with the dietetic value of wheat, rice and maize.

We eat food when we are hungry, but do we eat the proper food? It is not how much we eat, but what we eat, that makes for health, strength and energy. In other words, our diet must be balanced, proportionately composed of all the elements that make up food values as proteins, fats, carbohydrates, salts, vitamins and water. We get the complete nutritive benefit of any food only when it is balanced in composition and easily assimilable (readily digested and absorbed). Let us study the nutritive value of rice, wheat and maize.

Proteins.—Proteins build up the body and replace tissues lost in the daily routine. Proteins are also sources of energy.

Rice contains about 7.5 per cent of proteins, maize 11.1 per cent and wheat 12.1 per cent. If rice, so great in demand now, is partially replaced by wheat or maize, our diet would definitely become more nutritious.

Fats.—The body needs fats and utilises it in a number of ways. Fat also gives energy. Weight for weight, the fat content of rice is about one-sixth that of maize and about two-fifth of wheat.

Carbohydrates.—The carbohydrate contents of these three grains are approximately the same.

Mineral Salts.—Some of the important mineral salts like calcium and phosphorous, which play a vital part

in the metabolism of the body, are distributed in the following manner:—

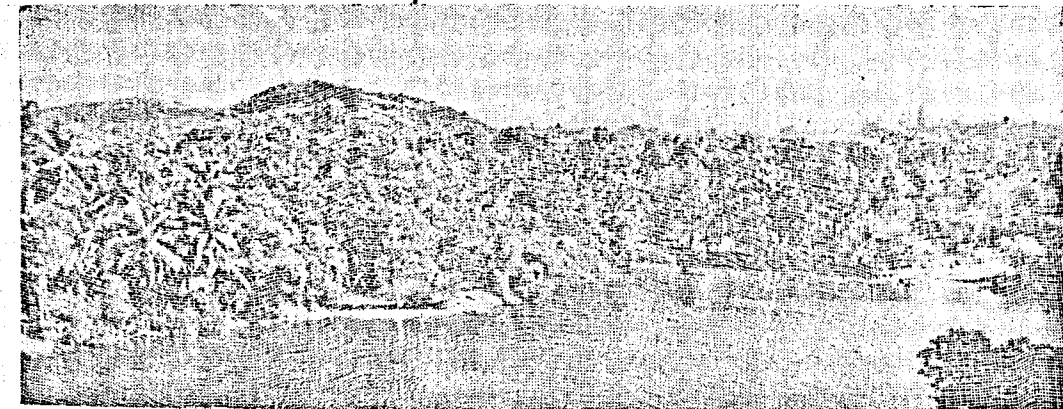
	Calcium. PER CENT.	Phosphorous. PER CENT.
Rice	0.01	0.17
Wheat	0.05	0.32
Maize	0.01	0.33

Maize and wheat therefore contain a greater amount of mineral salts than rice.

Vitamins.—Some of the vitamins associated with cereals and millets are Thiamine, Riboflavine and Nicotinic acid. Rice, wheat and maize have about the same quantity of Riboflavine. Rice contains about half the Thiamine and Nicotinic acid content of wheat, while maize contains about one-sixth of Thiamine less than rice and a little less than half the Nicotinic acid found in rice. Maize is not likely to be a staple food; it will supplement other cereals.

Balanced Diet.—Even if rice is available in plenty, we should still supplement it with wheat and maize, so that a balanced diet may be evolved. Two or three cereals should enter into our dietary, not necessarily in the same meal but in different meals.

Every cereal has some defects or other and the combination of cereals in our dietary will correct the deficiency and combine to make for a healthy meal. Most of us, being mainly used to rice, may not take kindly to wheat and maize in the beginning. But when we realize their full advantages there will be a radical change in our dietary, a change for the better.



Farming in the West

By SRI R. V. SWAMINATHAN, M.L.A.

The first thing which made an indelible impression in my mind was the keen interest evinced by farmers in Western countries in the development of agriculture and agricultural methods. Agriculture there is looked upon as an industry and is indeed quite a paying proposition. Profit motive is as much a guiding factor in agriculture as it is in any other commercial or industrial enterprise. In fact, this has been developed to such an extent that the farmers are able to compete successfully with the industrialists.

I was particularly impressed by the fact that there was not a single country in the West which did not have well-developed and efficiently managed national farmers' unions and co-operative societies. I was enabled to study the agricultural conditions in those countries with the help of these organisations. The national farmers' unions and co-operative societies are free from politics and this, I believe, is one of the chief reasons for their success. On account of this active help rendered by them, the farmers do not have to depend on the Government for bettering their lot.

A very predominant feature of agriculture in the West is the highly developed mechanical form of cultivation. Big estates have their own tractors and other agricultural machinery. Farmers who cannot afford big machines have small and handy tractors. Co-operative societies help the small farmers by hiring out tractors and modern agricultural machinery for a nominal fee. I could see that there was not much of absentee landlordism, which is the bane of agriculture in this country. I was surprised to find big estate owners working on the farms just like any ordinary farm hand.

Manure, Seeds and Cattle

Another aspect of agriculture in which the farmers in the West attach the greatest importance is the proper manuring of the soil. They realise very well that just as man cannot live without food, lands also require nourishment. Each time the field is cultivated, the soil is tested and its deficiency ascertained for the application of just the quantity of manure required.

The farmer also bestows special attention in selecting seeds. Seeds are used only after being tested and their potentialities known. Even if a few grains in a bag are slightly bad, the farmers reject the whole lot. Unlike the practice obtaining in our country, there are farms exclusively devoted to growing seeds. I visited a big farm of a thousand acres at Arles-sur-Rhone in Central France. M. Reynaud, the estate owner, told me that only seeds of different kinds of different crops were grown by him to be supplied to other farmers. I have myself seen the amount of special care taken in growing the seeds in this farm.

Cattle breeding also claims the special care and attention of the farmers in the West. Artificial insemination is also being widely adopted and with great success for ensuring healthy breed of cattle. Co-operative societies help the farmers in the efficient handling of this method by doing research work.

Sri R. V. Swaminathan, M.L.A., was the Indian Delegate to the International Agricultural Conference recently held in Stockholm sponsored by the Scandinavian countries. It was attended by about 150 representatives from several countries and lasted for ten days. A 20-day tour of the four Scandinavian countries—Denmark, Sweden, Finland and Norway—was arranged and Sri R. V. Swaminathan was one among the few delegates to participate in the tour and also visit Germany, Holland, Belgium, France, Switzerland, Italy and the United Kingdom. He devoted particular attention to the study of agricultural conditions in those countries.

Subsidiary Cottage Industries

It is impossible to see a farmer keeping idle in the West. They are busy throughout the year and supplement their income from the lands by developing subsidiary cottage industries. Almost every farm big or small, has its own dairy. The farmers also rear chickens and pigs. In the South of Denmark, I visited a farm where a good dairy is run. The owner of the farm is the proud possessor of a prize cow which gives him 12 gallons a day. In the dairy farms, special care is taken to protect the cows from such diseases as tuberculosis. The cows are periodically examined by veterinary doctors and certified as free from disease.

In Sweden, I visited a small farm in the midst of a forest in the interior. In the course of a conversation, the farmer told me that he was the tenant of an absentee landlord. The estate was 40 acres in extent and he paid about Rs. 1,800 as rent according to Indian currency. Besides this, he also paid Rs. 1,300 as income-tax to the Government. Yet this successful farmer has built a house for himself, a stable for his horses and buildings for the dairies and poultry. The farmer appeared to be very happy and contented. Going out from India, where agriculture is a gamble, I was really astonished to find the farmer able to earn enough for himself and to pay the rent to the landlord and taxes to Government.

I asked the farmer: "How is it that you have raised all these buildings at your own cost? Supposing your landlord evicts you, what is your position?" He replied, "Oh! I cannot be evicted for two reasons. Firstly, there is a legislation which protects the tenants from eviction as long as he pays the rent regularly, and secondly, no other tenant will be prepared to step into my shoes even at the request of the landlord." How I wish we here in India could also assure similar protection to our tenants!

High Standard of Living

Everywhere I went I could see for myself the high standard of living attained by the farmers. During my tour in Scotland, I visited a very small farm in a village

named Haldinge consisting of about 8½ acres of land, a house for the farmer containing three bedrooms, one sitting room, a kitchen with electric stove, a bathroom with running water tap, a stable and dairy. This estate, I was told, belongs to Government and has been given to Mr. Angus under the land settlement scheme. Mr. Angus, who started life as an ordinary farm labourer, has now a radio, a piano, a telephone and a motor-car. He pays Government £37 as land rent and this year has paid £84 as income-tax. In Indian currency, this comes to nearly Rs. 1,640. He grows fruits, vegetables, etc., in his farm. I was very much surprised to find that from agriculture one could earn so much.

I found in many places farmers growing tropical fruits, vegetables and flowers in glass-houses under artificial conditions. Steam is applied to produce heat as a substitute for sunlight. This shows how enterprising the farmers are in those countries.

Scientific Training for Students

I was curious to know, naturally, how it was that the farmers in the West managed to run their farms on scientific lines and keep on improving agricultural methods while our farmers here still continue to hold on to the antediluvian methods. I got the answer when I visited an Agricultural School in East Sussex in England. The school has its own farm, about 1,000 acres in extent, and trains seventy to eighty students every year. An essential qualification for admitting a student is that he should have worked on a farm for at least a year. Nearly fifty per cent of the students are girls, which shows how they too are becoming well-equipped for helping their men in farm work. The course is not merely theoretical; half the day is compulsorily set apart for actual work on the school farm.

Mr. Hall, the Lecturer in Agriculture, told me that a student who had already had a year's training on a farm and rounded off by another year's advanced training at the school was not likely to choose any other profession except farming. It might be, he said, that a student might have gone up for higher studies in agriculture; but as far as he knew there was not one instance where a student had chosen a different profession. How different it is in our own country, where we hear of agricultural graduates becoming clerks for lack of suitable opportunities!

Enthusiasm of the People

The high living standards of agricultural labourers in the West is due to the protection afforded by Government on the same level as industrial labourers. A noteworthy feature is that a woman agricultural labourer gets maternity benefits. This probably accounts for the enthusiasm of the people in those countries to go to the villages and take to farming instead of to the factories as labourers. After the second World War, every bit of available land has been brought under cultivation in all the countries I visited. For instance, England which had only 5,000 tractors before the War, has now put on the land nearly 200,000 tractors.

Agriculture in the West has been a tremendous success for the following reasons: adoption of scientific methods; proper use of manure and seeds; mechanised cultivation; marketing of produce and fixation of prices; and efficient and keen interest shown by the farmers. I am sure that

many of these could be applied in India in the development of agriculture. For this the Government should treat the problem of agriculture as a national problem, giving it top priority.

In every nook and corner of the countries I visited, all people from the peasant to the prince, young and old, asked me reverentially about the Father of Our Nation, Mahatma Gandhi. Let us follow that kindly light. Jai Hind!

—By courtesy, A.I.R., Madras.

FARMING IN BRITAIN

A test by the National Institute of Agricultural Engineering, set up by the Agricultural Machinery Development Board. A two-furrow plough by Bristol Tractors is used on heavy soil; the pull applied is measured on a dynamometer, then the width and depth of the furrow slices are noted. Calculation gives pounds pull per square inch of furrow slice section, so that the draught of this plough can be truly compared with that of other ploughs.

The field is not owned by the Institute. The farmer who gave permission for the land to be used gets a large area ploughed for nothing; the Institute get its test (Pictorial Press).



Wealth from Waste

Soils in India are, in general, deficient in humus and the high temperature prevailing in the South causes rapid deterioration of the organic matter present in the soil. The humus content of the soil has thus to be replenished periodically and this can be done by the application of bulky organic manures. These manures, besides increasing production, exercise a beneficial influence on all kinds of soils, ranging from heavy clays to sandy loams, including saline and alkaline soils.

The chief sources of supply of organic matter to the soil is farmyard manure, which however is not available in adequate quantities to satisfy the requirements of the area under food crops. It is therefore necessary to conserve all farmyard refuse, cowdung, urine, village sweepings, town rubbish, night soil—all of which are rich in manurial ingredients—and convert them into useful manure by composting. Composting is nothing but a simple scientific process whereby the moisture and nitrogen

content of the farmyard manure and the rubbish are conserved in the manure till it is applied to the fields. This is the cheapest and the best manure available at the farmer's doorstep.

It is the secret behind the considerably higher yield in China and Japan where the soil and climatic conditions are not very different from those of India. While the pre-war average yield of paddy per acre is 2,433 lb. for China and 3,444 lb. for Japan, it is only 1,240 lb. in India. Similarly, the yield of wheat per acre in China and Japan is 989 and 1,713 lb., respectively as against 660 lb. in India. The reason is that the farmers in Japan or China have no prejudice against handling human excreta, for they help him to get the maximum out of his tiny plot of land for his family. The Indian farmer, unfortunately, does not make any use of this valuable source of manure, and it is believed that nearly one million tons of nitrogen are lost for want of conservation and composting of human urine alone.

Rural Compost

Composts are of two different kinds—(1) rural compost and (2) urban compost. The preparation of these composts is very simple, cheap and most sanitary. Rural compost can be prepared in every household in the village. Cattle dung and cattle urine are important ingredients in the preparation of compost. The cattle population of India is nearly 200 million. If the urine of these animals could be collected in pits, nearly three million tons of nitrogen would be added to the soil. All the farm sweepings, waste materials, straw, dried and green leaves will be the main materials for such rural compost. All these have to be pitted in regular layers in a convenient pit—ordinarily measuring 10 feet long, 5 feet broad and 3 feet deep. A layer of material 4 to 6 inches in thickness is spread at the bottom of the pit. Over this layer, cowdung water is sprinkled to moisten the material. Small quantity of ash may also be spread over this to accelerate the decomposition of the material.

Succeeding layers of farm waste and cowdung water are similarly added till the heap rises to a foot or two above ground level. The pit is then covered with a layer of mud 4 inches thick and allowed in that condition for about six months. By that time, the whole material will be decomposed into good manure. The production of rural compost is also encouraged by the Government. The Government have decided to grant a subsidy of about Rs. 1 lakh during this year. Under the rural compost scheme, the ryots can get a subsidy of one rupee per ton of compost made by them from waste vegetable matter in pits dug by them under the supervision of the local Agricultural Demonstrator.

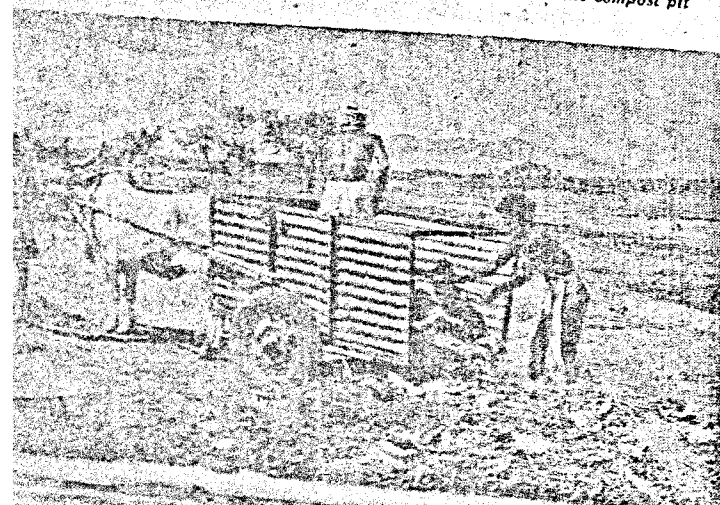
Urban Compost

This compost is prepared from town wastes such as (1) dry refuse (street sweepings and dustbin-refuse), (2) night soil and urine, (3) sewage, (4) market and mill wastes, and (5) slaughter house wastes. These materials are of great manurial value and are not at present being put to the best possible use. It has been found that the system of compost making is a very satisfactory method



1. Marking out a pit of minimum size

2. Rubbish and sweepings being carted to a place near the compost pit



of disposal of town wastes, from the point of view of sanitation and also of manurial production. Various workers have recommended different techniques, but the cheapest, simplest and most sanitary method is the Bangalore process. The composting is carried out in trenches with dimensions varying from 15 feet long, 5 feet broad and 3 feet deep, for an average of 5,000 people, to 40 feet by 9 feet by 3 feet for a town of more than 50,000 people. The number of trenches should be as many as necessary to receive all the rubbish and nightsoil collected from the particular towns for a period of eight months. The trenches should be arranged in rows so that longer sides are parallel and short ends are on the same line, leaving five to six feet vacant space between successive trenches.

The total compost manure that may be expected to be obtained from every town may roughly be put at one-tenth of the population in tons. A layer of dry refuse 9 inches thick is spread at the bottom of the trench and then nightsoil is added on to a thickness of 3 inches. Succeeding layers of dry refuse and nightsoil are similarly added till the heap rises to a foot above ground level. The top layer at the end of each day should be dry refuse, about 9 inches thick and this may be covered with $\frac{1}{2}$ to 1 inch layer of earth. The top surface of the heap may be domeshaped and covered with a layer of earth of one to two inches thickness. The material within the heap, after a period of eight months, will be found to have thoroughly decomposed into an innocuous and odourless material of high manurial value—equal, if not superior, to ordinary farmyard manure.

High Manurial Value

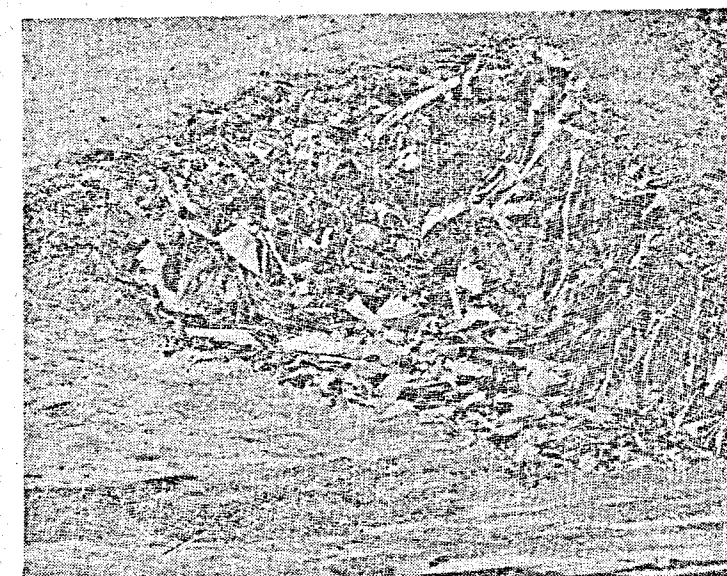
The Government of India have laid great stress on stepping up compost-making, both in the rural and urban areas. The potential production of compost in India is so immense and the progress made hitherto so little, that India can make up a good deal of her food deficit from this source alone, if all the available refuse is composted. The figures given below speak for themselves:

Source.	Potential quantity of manure.	Present utilisation
	TONS IN LAKHS.	TONS IN LAKHS.
1 Town refuse and night-soil.	100	7
2 Town sewage and sludge.	500 million gallons per day.	50 million gallons per day.
3 Village nightsoil	150	Nil.
4 Human urine compost.	500	Nil.
5 Cattle urine compost	500	50
6 Saving of cowdung being burnt.	1,000	Nil.
Total ..	2,250	57
Nitrogen contents ..	13.5	0.342
Extra food production ..	67.5	1.62

None can deny that both rural and urban composts are very useful and valuable manures. In view of the declining fertility of our soils and of the urgent need for increased food production, it is imperative that all the

available habitation wastes which are of high manurial value should be properly composted and utilised for agricultural purposes. It has been found from various experiments conducted at the Agricultural Research Stations in the State that compost manure applied at ten cartloads or five tons per acre gives an additional yield, roughly about 1/40th of the weight of the compost applied. The use of compost is likely to yield three to four times its value in the form of additional foodgrains.

Even if we assume the possibility of production to be 50 per cent of what has been estimated above by experts, there is no doubt that food production can be increased by at least 30 lakh tons from the compost making programme alone. By producing larger quantities of compost manure, ryots and mirasdars will not only benefit themselves in the shape of higher yields per acre but also help the nation to increase its production of foodgrains.



3. Alternate layers of rubbish and nightsoil are added to the pit till it reaches a height of 1½-2 feet above ground level finishing with a layer of rubbish

4. The nightsoil is uniformly spread with a long-handled implement, making handling easy



Plant Protection Service

The science of agriculture falls broadly into three divisions, namely, agricultural chemistry dealing with the nutritional requirements of plants and soil studies, agronomy and crop-breeding specialising in studying the relationship of plants with the environment and the evolution of new types of better varieties of plants and lastly plant protection dealing with the methods of protecting plants from diseases and pests. Very little progress has been achieved till recently in plant protection in most countries of the world and practically nothing in India. This is probably due to a mistaken notion that plants need no artificial aids in protecting themselves.

Mankind, forced to find food for its ever increasing millions, had to adopt intensive systems of agriculture which unfortunately has created conditions peculiarly favourable to the development of certain pests and diseases which live on our plants and crops. It is no exaggeration to say that man has actually provided the crop pests and diseases with enormous quantities of food in the most inviting way and begged them to do their worst. There are millions of tiny moths continually working on our crops and what is now considered a normal crop could in many instances be decidedly increased if this unsuspected drain could be stopped. In our frantic efforts to find sufficient food for our enormous population we are feeding increasing millions of insects and plant parasites also, with the result that our agricultural production has remained static and we are in the midst of a food crisis that may well-nigh deteriorate into a serious national calamity. There is only one method of averting this impending tragedy and that is by preventing all waste of food material and the greatest of these wastes is the tremendous but necessary tribute that we pay to insects and plant diseases. And this damage and waste is increasing. The problem is very much greater than what it was years ago and is bound to become more and more serious and acute with the passing of each year. The most pressing need of the day is a well-organised Plant Protection Service to protect what we labour so hard to produce.

Resistant Strains : Direct Control

Methods of plant protection fall into two broad divisions: firstly, those which prevent the onset of an infestation by using resistant strains of crops or by means of

5. The finished pit is covered with 1-2 feet layer of soil one week after filling the pit

chemical treatment of the seeds or plants; and secondly, the curative or direct control measures adopted after the actual incidence of an infestation. These curative measures comprise destruction of the parasite with suitable chemicals, poisonous to it but safe for the plant, seed or soil cultivated, by mechanical destruction of the parasite or the infested plants and by utilising other living organisms which destroy the plant pests by feeding on them.

Achievements in plant protection.—A brief review of the achievements in plant protection will make clear the scope and utility of such methods in the efforts to increase our agricultural production.

(i) **Breeding resistant strains.**—The 'Blast' disease of paddy was till lately a dreaded scourge in every district, laying waste vast stretches of paddy crop. To-day there has been evolved two new strains, Co. 25 and Co. 26, which resist this disease and are rapidly finding favour amongst the ryots.

(ii) **Chemical treatment of seeds and plants.**—Certain disease germs adhere to the seed-coats and become active only when the seeds are sown. These germs sprouting along with the seeds, enter the plants and destroy them. Two such diseases are the "Foot-rot" of paddy and the cholam smut, both of which can be easily prevented by treating the seeds. Paddy seeds are treated with the preparation known as Agrosan GN and cholam seeds with sulphur dust, the chemicals being mixed with the seeds, before sowing.

Spraying with Chemicals

Preventive sprays are also quite popular to ward off the attack of plant diseases. The "Mahali" disease of arecanuts prevalent on the West Coast, the citrus leaf and Fruit-fall diseases in the hill areas and the Mildew disease of grapevine are three instances where without preventive spraying with the preparation known as "Bordeaux Mixture", entire crops would be wiped off in no time.

Curative measures comprising the use of chemicals is mostly adopted towards insect pests. The discovery during the war years of the insecticidal action of the two chemicals "D.D.T." and "Benzene Hexachloride" has revolutionised the entire field of chemical control of insects, and scientists are of opinion that we are just on the threshold of further discoveries. These insecticides have become enormously popular during the course of one year. Such serious pests like the "Army worm" of paddy, the "Rice bug", the paddy "Grasshopper", the cholam "Ear-head bug", the "Thrips" on chillies and onions and a score of others are no more frightful to-day. They are being exterminated in hundreds of acres by the judicious and timely use of one or the other of these two insecticides and bountiful crops are harvested. But as yet there is no reason for optimism and rejoicing; for, in a vast agricultural country like ours, a few hundreds of acres is but an infinitesimal fraction of the fields yet untouched.

When the protected areas from hundreds of acres are raised to thousands, from thousands to tens of thousands and millions, then and then alone can Plant Protection Service be deemed to have fulfilled its duty. A vigorous campaign to exterminate rats by using poison baits containing Zinc Phosphide has had a wide and popular appeal

Ragi Crop Saved

To

The Hon'ble Minister for Agriculture,
Fort St. George, Madras.

Sir,

Recently ragi nurseries in our taluk were affected with a disease by which all the nurseries were destroyed. We were at a loss to know as what to do. Knowing the plight of the ryots, the Plant Protection Staff stationed at Chittoor immediately took steps to check the disease by spraying medicines.

The seedlings after spraying had marvellous recovery. Never again the crop was troubled with the disease. Due to the efforts of the Plant Protection Staff we have been able to grow ragi over an area of 400 acres successfully. We respectfully offer our gratitude to the Government for creating a very useful section in the Agricultural Department for fighting crop diseases.

V. RAGHUNATHA REDDY,

Secretary,
Chittoor Taluk Kisan Congress.

and thousands of acres have been so far treated and cleared of the vermin.

Apart from this use of chemicals, the age old methods of actual destruction of the parasite or the affected plant or part of it has its own inestimable value, particularly to the small gardens. Thus many insects which live inside the plants by boring into it have either to be physically extracted or the affected plants, or plant parts harbouring the parasite removed and destroyed.

Protection by Breeding Parasites

Lastly, Plant Protection brings into service certain insects which feed or breed on some of the noxious crop pests and thus keep them down. This has been done successfully against the Cottony Cushion Scale attacking wattle cultivated in the Nilgiris and Kodaikanals. A beetle which feeds on the scale has been brought over from Africa, multiplied here and liberated. It has kept down the scale to insignificant proportions. A coconut pest, the "Black-headed Caterpillar" is also being controlled by breeding and liberating some of its parasites.

In addition to the actual damage in the field there is a tremendous loss to stored products, caused principally by insects. The storage of vast quantities of food necessitated by modern conditions of living, by the development of industrial centres and by the State itself purchasing food-grains due to the present food scarcity are conducive to the development of every kind of store pest. There have been instances in recent times when enormous quantities of valuable foodgrains had to be condemned as unfit for

human consumption due to the ravages of insects. The only safety against this sort of colossal wastage is the organisation of an efficient Plant Protection Service to adopt suitable control measures against such pests by enforcing proper conditions of storage and undertaking curative measures like fumigation.

To recapitulate and conclude, the human species has so disturbed the balance of nature as to favour the increase and spread of disease bearing micro-organisms and to encourage enormously the multiplication and spread of injurious insects. In its efforts to feed its increasing millions, it has fed increasing millions of insects and disease germs. They are our dangerous rivals for the food supplies of the world and whether we hope to survive, to exist and to prosper, will depend to a large measure upon the success or failure of a well-planned and organised Plant Protection Service.

Hire Charges on Pumpsets Revised

The rates of hire charges on pumpsets supplied to the agriculturists have been revised by Government.

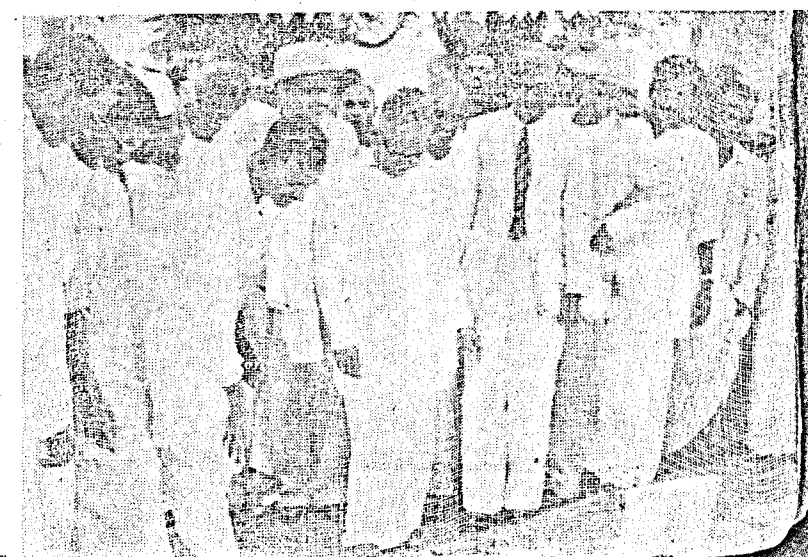
It has been found that some ryots desire to hire only the engines and not the services of the Department drivers as the ryots either have their own drivers or know driving themselves. The Government have therefore permitted the hirers to run oil engines themselves or utilise their own drivers for running them. The following revised rates will apply to the oil engines which alone are hired out to ryots:—

For 8 to 16 h.p. oil engine pumpsets	Rs. 2 per day.
For 16 h.p. and above oil engine pumpsets	Rs. 2-8-0 per day.

Ward Gift for Pattukkottai

The Government have accepted with thanks the offer of the "Independence Day Committee", Pattukkottai, to construct a ward of six beds and provide it with necessary furniture in the Government Hospital, Pattukkottai, and to hand it over to the Government for maintenance.

Sri N. Sanjeeva Reddi, Minister for Prohibition, and Sri M. Bhaktavatsalam, Minister for Public Works, inspect a manure pit during the Compost Week in Tiruvallur Firka.



Agricultural Round-Up

Increased Production of Fruits

Fruits play an important part in our daily diet. They supply good nutrients and are very rich in pre-vitamin A. They are also important sources of Vitamin C. The consumption of fruits in rice-eating countries is insufficient, particularly in urban areas, and increased consumption is much to be desired. Among the tropical fruits, the papaya and the mango are particularly rich in pre-vitamin A. Tomatoes, certain varieties of bananas and some citrus fruits are good though less potent sources.

Fruits are the principle sources of ascorbic acid in the diet in rice-eating regions. Certain fruits, tubers and also red pepper supply these vitamins in useful amounts. Red pepper may be of particular importance as a source of ascorbic acid in areas in which supplies of fruits and vegetables are limited. Much of ascorbic acid may be lost in cooking of fruits and hence great attention is to be paid in the method of cooking. Fruits should not be over-cooked or cooked at a very high temperature. People must be educated to use methods wherein the vitamins in fruits can be used to the maximum extent possible.

Fruits can be grown in tropical countries, especially the common fruits like papaya, mango and bananas. Papayas can be grown in house compounds in all available places and very good yields obtained with ease. Similarly, areas under mangoes can be increased by at least 20 per cent and also under plantains. All these will add nutrients

properly to our diet and help in meeting a part of the food deficit.

Fruit Preservation

In Madras State, fruits are available only in particular seasons and that too, often in large quantities. Being perishable, they are sold at very cheap rates during the season of their production while at other times, they are costly and non-available in the market.

Fruit preservation on scientific lines is practised in other countries while in India it is just in the embryo stage. This State to encourage fruit preservation, has sanctioned recently the appointment of five Lady Fruit Preservation Demonstrators with headquarters at Madras, Tiruchirappalli, Kozhikode, Kakinada and Anantapur. They have been provided with a complete set of equipment for the demonstration of fruit and vegetable preservation by simple modern methods.

Demonstrations are being arranged at Women's Clubs, Welfare Centres, Exhibitions, Girls Schools and Colleges and in some private residences. Recently, the Lady Demonstrators were given training in Nutrition, so that during their tours they may educate the womenfolk in modern ideas about food and nutrition and also do propaganda for popularising subsidiary foods like sweet potato, tapioca, etc.

Compost Can Help Solve Our Food Problem

Government lay great stress on stepping up compost-making both in the urban and rural areas. There is such a large amount of refuse available in the urban as well as rural parts of our country that we can make immense quantities of compost out of it and make up a great deal of our manure deficit from this source alone. There is a State Compost Development Committee to guide and review the compost work done in this State and plan future development. A special officer supervises compost production and he tours the State to assist the local administrations to formulate and execute plans of compost development. So far 82 Municipalities out of 94 and 43 of the Major Panchayats out of 381 which have Executive Officers, have begun to make compost under the Urban Compost Scheme. Several States have passed legislation to compel the municipalities to convert their urban refuse into compost manure. Mysore has followed the East Punjab example in enacting legislation for compost production by panchayats and for proper storage of manures in pits by the villagers.

The Madras Government are giving a subsidy of Re. 1 per ton to encourage compost-making in the villages. Compost teaching and demonstration is being introduced in the schools. Teachers and students in village schools can make an effective contribution to our Grow More Food programme by taking an active part in popularising compost-making. The organisation of this Compost Week is intended for demonstration of improved methods of manure preparation and urine conservation in all our villages. The village officers and other Revenue staff as well as the officers of other departments who come into contact with villagers, the Congress Committees and other non-official bodies are expected to work together and contribute to the success of the Compost Week. If the mass of the people can be made manure-conscious and they take to compost-making as in Japan and China, agricultural yield can be raised and our food deficiency problem can be solved to a great extent.

A. B. SHETTY,
Minister for Agriculture.

Training Classes in Practical Agriculture

Publicity and propaganda play an important part in intensifying food production. Publicity regarding various Grow More Food schemes, methods of cultivation, application of manures, etc., is generally given through vernacular newspapers. But these publications alone are not sufficient, since illiterate agriculturists are not benefited by such publicity. Agriculturists in interior villages should be educated on improved methods of agriculture. In order to secure quick results by direct mass-contact of villagers, it has been suggested by the Collector of South Kanara that short courses of training in agriculture lasting about a week may be started.

The training will be imparted at several convenient centres in each taluk. The Agricultural Demonstrator of the taluk will give the instruction and trainees will include agriculturists, Revenue Inspectors, elementary school teachers and village officers. These trainees will in their turn help disseminate the knowledge so gained among the ignorant agriculturists. The instruction will be free. Practical demonstration of improved methods of agriculture including manufacture of compost, will be arranged. The trainees will also be taken to the nearest Agricultural Research Station for demonstration of improved methods of agriculture.

Such training classes have commenced in South Kanara District and so far they have been conducted at three centres; in Byndoor of Coondapoor Taluk, Puttur in Puttur Taluk and Muliur in Kasargod Taluk. At Muliur

there were more than 48 village officers and elementary school teachers attending these courses. At Byndoor, the Tahsildar of Coondapoor addressed the trainees. The training classes are reported to have been very popular, and it is expected that similar classes will be arranged in other districts also.

Cabbage Growing on Commercial Scale

Attempts at cabbage growing on a commercial scale in the plains of the northern region of the State will not be successful unless elaborate arrangements are made to keep down the caterpillar pest that damages this crop from the seedling stage to harvest. BHC 5 per cent dust which can now be had for a low cost, can completely help us to get over the insect problem in cabbage growing, if it is dusted regularly once a week on the crop early in the morning when the dew is on the plants and helps the dust to stick to the leaves dusted. In places where dusting cannot be undertaken early in the morning BHC can be sprayed at 1 ounce of 50 per cent BHC in one gallon of water or Cussarol 55C— $\frac{1}{2}$ ounce in one gallon of water.

Nuzvid in Krishna District has shown us that cabbage which fetches nearly as much as Rs. 1,000 per acre can be successfully cultivated through regular use of BHC. With this finding the area under cabbage (large solid drum head) in the area is increasing from year to year and in the coming season a total area of ten acres is estimated to be grown with this profitable vegetable. Here is a hint for the growing of a new vegetable under wells near towns.

Tractors and Bulldozers in Chittoor District

Due to heavy floods during 1946 in the rivers a number of spring channels in Chittoor District have been washed away with their head kasams. Due to the non-existence of the irrigation sources, fertile lands were kept uncultivated. With the aid of the Departmental tractors and bulldozers such channels were reclaimed in a very short period at low cost. A summary of work done in kasam clearance work in Chittoor District by the use of Departmental bulldozers is furnished below:—

Name of taluk.	Name of village	Extent of kasam clearance work done so far	Number of ryots benefited	Additional area brought under cultivation	Number of bulldozers used	Extent still to be cleared
(1)	(2)	(3)	(4)	(5)	(6)	(7)
ACRES.						
1 Puthur	.. Sorakayalapet	.. 400 yards.	50	250	1	Completed.
2 Chittoor	.. Aragonda	.. 200 "	30	200	1	Do.
3 Do.	.. Diguvamagani	.. 400 "	30	150	1	Do.
4 Do.	.. Thumbakuppam	.. 500 "	25	150	1	Four kasams still to be cleared.
5 Chandragiri	.. Dakshanamoorthy-kalva.	.. 500 "	15	50	2	Almost completed.

Policy of Public Expenditure

Discussion between Sri B. Gopala Reddi, Finance Minister, Madras and Dr. V. K. John.

Dr. John.—Mr. Reddi, I am glad that you have found time to discuss with me the principles you as Finance Minister have been following in the sphere of public expenditure. You know that since World War II, public expenditure has assumed gigantic proportions. It constitutes a significant part of national expenditure. In U.S.A. public expenditure in 1913 was but one-twelfth of the national income; but in 1945 it reached a peak of 110 billions dollars or one-half of the national income. The economic role of Government has become dominating in the national economy. In such a context, every Government should have a fiscal policy, whether it realises it or not. The real issue is whether it is a constructive one or an unconscious bumbling one. Mr. Reddi, as the Minister of Finance of this State who has presented successively and successfully three budgets, you should be in a position to tell me exactly the character of the fiscal policy that is being pursued.

Sri Gopal Reddi.—I am so happy that you have raised a crucial question, Dr. John. The general principles of fiscal policy this Government have been pursuing, are strictly in conformity with those laid down by the Congress.

Dr. J.—I am not concerned today with the Congress policy of sacrificing large chunks of revenue on ideological or other grounds. I am primarily interested in knowing the principles governing the policy of public expenditure. The effects of public expenditure, no less than the incidence of taxation, are felt in all the sectors of national economy.

Sri G. R.—I quite agree with you, Dr. John, that wise public expenditure could go a long way to neutralise the burden of taxation. But the quantum of public expenditure is to a considerable extent limited by the revenues of the State.

Dr. J.—And, may I add, also by the capacity of the Government to borrow? There is a growing feeling that the Government had been indulging in large-scale borrowing and borrowing obviously implies a deficit budget.

Sri G. R.—May I interrupt you for a second? All borrowings need not necessarily imply a deficit budget. Even the Puritans in finance today accept that productive loans do not produce a deficit and a balanced budget means that there is no net increase in deadweight debt. Judged by the modern canons of public finance, Madras Government has had all through these difficult years a balanced budget.

Dr. J.—What you say looks very incredible. The Government of Madras have budgeted for a capital expenditure to the tune of Rs. 40 crores in the four years 1947-1951 and you have so far borrowed over Rs. 17 crores, and you would borrow much more if the Government of India and the Reserve Bank are more generous in granting you permission to raise loans.

Sri G. R.—Loan Finance *per se* is not a "crime against society." Before examining the objects for which loans are raised, no judgment could be pronounced on any loan undertaking. If a loan is reproductive and the public enterprise financed by it is urgent or conducive to strengthening and improving the national economy, failure to raise such a loan rather than raising it, is unsound finance.

Dr. J.—Am I then to understand that we have always managed to meet current expenditure from current revenue? It is a well-known financial maxim that if current expenditure is fully covered by current revenue, the resultant is a balanced budget.

Sri G. R.—That financial maxim has always been strictly adhered to in recent years.

Dr. J.—I am glad to know that; yet it passes my understanding why you should ever borrow when your revenues have nearly doubled in the past ten years. If you had kept a careful watch over all the items of expenditure, a large surplus would have accrued every year which could have been utilised for several development projects. Didn't your predecessors in the war-time by keeping a careful eye on expenditure build up a gratifyingly large Reserve Fund? Fed purely by revenue, it has been called the Revenue Reserve Fund.

Sri G. R.—You have raised a very interesting issue. You ask why, in the last four years, the Revenue Reserve Fund has not been strengthened. I have two reasons to offer. Firstly, prices had spiralled up in the post-war years much more sharply than in the strait-jacket economy of the war years. With the soaring prices, the rising cost of living had to be met by adequate grant of dearness allowance to the employees of the State. On their contentment rests the efficiency and integrity of Civil Government. Secondly, the policy of the Congress Government, unlike that of the predecessors, is the inauguration of the Social Service State. During war-time, we had nothing better than a Police State. Expenditure on Social Services and economic development had been cut to the bone for a variety of reasons like inflation, short supply of technical personnel and capital goods. The change in the ideology of Governmental functions has been responsible for substantial increases in expenditure on social and developmental services.

Dr. J.—In spite of all you have said, I find the expenditure on these services has been deplorably low. According to the Budget Estimates for the current year, the *per capita* expenditure on Education would be only Rs. 1-13-4, on Medical Aid 8 annas and 4 pies, on Public Health 2 annas and 11 pies, on Industries 6 annas and one pie. Notwithstanding the much-trumpeted Grow More Food Campaign, *per capita* expenditure on Agriculture is no more than 5 annas and 6 pies and on Animal Husbandry one anna and 5 pies; and expenditure per acre of Forests is 10 annas and one pie.



Dr. T. S. S. Rajan, Minister for Health, laying the foundation stone of the Welfare Fund Tuberculosis Hospital in Nellore on Gandhi Jayanti Day. At left is Sri B. Gopala Reddi, Minister for Finance

Sri G. R.—You are not fair, Dr. John, when you give the *per capita* expenditure on these services budgeted for the current year without any reference to the past. The total expenditure on Education in the current year compared with 1939 has registered nearly a four-fold increase. The expenditure on Medical Aid has increased nearly three-fold, on Public Health nearly four-fold, on Industries nearly eight-fold and on Agriculture nine-fold as compared with the expenditure in 1939, let alone the absolute increase in the expenditure. If we turn to the *per capita* expenditure on Education, it has increased more than three-fold, on Medical Aid nearly three-fold, on Public Health over three-fold, on Industries over six-fold, on Agriculture nearly six-fold, on Forests two-fold, and on Animal Husbandry over three-fold.

Dr. J.—No doubt these are impressive figures. But I don't think the number of schools, teachers, hospitals, doctors, midwives, health staff, agricultural demonstrators, veterinary surgeons and others have increased in the same proportions.

Sri G. R.—I do appreciate your desire to expand all these services. But in the post-war era of universal short supply, we have been constrained to go slow. We

have on hand numerous schemes of expansion and we are taking them up according to a system of priorities. The Social Service State, like Rome, cannot be built in a day. We are today bearing the full brunt of the 150 years old Wagner's "Law of Increasing State Services"; but we are faced with scarcities and bottlenecks of technical personnel, capital goods and materials of all kinds. The greatest of all bottlenecks, as you know, is Finance.

Dr. J.—If it were so, you should eke out surpluses by a rigid exercise of greater governmental economies.

Sri G. R.—Economy we have been practising to the utmost; in the current year, expenditure under various heads to the tune of Rs. 3 crores has been slashed as an emergency measure. But more economy will not prove to be a milch cow. Public revenues will have to come more from positive measures; and they are only two—taxation and borrowing. In democracy, we want more and more services, more and better schools, more amenities, better sanitation and so on. All this requires money. If taxation is suggested, the shrill voice of protest is raised from all quarters saying that taxable capacity is being too much strained. Any further increase would kill the goose that lays the golden eggs. The only alternative left is loan finance.

Crop Competition Scheme

The Government have instituted a crop competition as an experimental measure during the year 1950-51 to promote a spirit of healthy rivalry among the cultivators and thereby to increase the average yield per acre of paddy crops in the State.

The competition is to adjudge the best yield per acre of paddy in the plots of land entered for the competition. The plot which is adjudged to have yielded the highest rate per acre of paddy will be given a prize. The competition will be held on a taluk, district, regional and State basis.

Each entrant may have to pay Rs. 5 as entrance fee per plot. The competition will be open to all cultivators in the State and the size of the plot to be entered for the competition should be not less than half acre in extent. Any variety of paddy under any system of cultivation, provided it is grown and harvested within the fasli year, can be entered for the competition.

An amount of Rs. 16,600 has been sanctioned by Government for the implementation of the scheme and for the payment of cash prizes and medals to the successful competitors.

The first prize for the State will be Rs. 500 and a gold medal worth Rs. 100.

The first prize for the region will be Rs. 250 for each of the five regions (Northern Circars, Ceded, Central, West Coast and Hills and Southern Region) and five gold medals valued at Rs. 50 each.

The first prize for the District will be Rs. 100 for 25 districts and 25 gold centered silver medals at Rs. 5 each.

The first prize for the taluks will be at Rs. 50 for 225 taluks and 225 silver medals.

The competition will be conducted by the Agricultural Department in co-operation with the Revenue Department.

Dr. J.—What are your special objectives in resorting to loan finance? Have you not inherited from your predecessor a large Reserve Fund of Rs. 31.45 crores?

Sri G. R.—No doubt compared with other States of the Indian Union, our Reserve Fund is relatively large. But larger are our demands for financing the numerous development projects. Of them, I should mention particularly the irrigation and hydro-electric projects. All the various projects under these two heads are productive and self-liquidating. Provision of irrigation facilities in an increasing measure is an imperative necessity in this State which has always been subject to the vicissitudes of the monsoon. The gap in food supply needs to be closed and quickly too. Irrigation constitutes a major plank in the rehabilitation of the State's economy. Not only does it step up production

but eschews a good deal of expenditure on relief measures.

That is why the old principles of minimum returns from irrigation works have been relaxed and the programme of extending irrigation facilities is given the topmost priority. Electricity schemes are an excellent business proposition. The State already owns and controls more than 90 per cent of the electricity supply. As a vital public utility service, electricity has hardly an equal. Rural employment, income and morale will be greatly stepped up. Loans raised for their construction do not add to the dead-weight debt. Nearly Rs. 40 crores will have been spent on these two kinds of schemes by the end of 1950-51. More crores will have to be spent for the completion of all the schemes both on hand and under execution.

Dr. J.—I quite agree that these projects ought to be completed, but I do not appreciate how they could be financed by loans. Firstly, loans unbalance the budget; secondly, deficit budgets are the least suitable in these days of high inflationary potential. I can well conceive of deficit financing by the State in the trough of a depression, when private sector is paralysed by crashing prices, resulting in mounting unemployment and dwindling incomes. Then would be the time for the State to do the pump-priming by undertaking public works. Will not the loan policy on the crest of a boom—on which I believe we are—release forces which will bring about a burst. I am of opinion that this is a period for axing down all unnecessary expenditure and postponing expenditure wherever possible and working strenuously for a surplus budget. On the contrary, the policy you adumbrate appears to carry us in the opposite direction.

Sri G. R.—You have painted the picture in rather lurid colours. It is an old Victorian fallacy to stigmatise the raising of productive loans as smacking of deficit budgeting. Capital expenditure on public enterprises is not to be mixed up with expenditure on Revenue Account; to use the British budgetary jargon, it goes "below the line". The acid test of a deficit budget is to find out whether current expenditure exclusive of contributions to sinking fund, net repayment of debt and all expenditure on productive purposes out of loans exceeds current revenues. Applying this test, the budgets of the Madras State in the past four years can never be characterised as deficit budgets. In these four years, out of the Revenue Account, provision has been made for expenditure of over Rs. 16 crores on Post-war Reconstruction Schemes and nearly 6 crores on Grow More Food Schemes, aggregating Rs. 22 crores. Thus a considerable amount of capital expenditure has been met from tax and other ordinary revenue. To quote an eminent financial authority and an economist of great repute: "When new capital expenditure is balanced not by loan but by taxation, the budget is to that extent balanced with an extra margin. This should be regarded by the Puritans as an extra sound finance."

By the fiscal policy I have so far pursued, I may lay claim to have balanced the budget with an extra margin. In cold figures, this policy has resulted in canalising about Rs. 22 crores from the pockets of the taxpayers to productive enterprises in the public sector.

To that extent, it has removed perhaps unwise expenditure in the private sector and substituted scientifically planned doses of expenditure in the public sector. To that extent, private financial resources have been mopped up and inflationary pressure curtailed.

Dr. J.—So far, it appears good. But how could you justify borrowing at an average rate of Rs. 10 crores per annum in these four years and investing them on public enterprise? I am sure you are aware of the Multiplier Effect of such an expenditure on the economy of the State. In the present craze of spending spree and consumption expenditure dominating, the Multiplier Effect will run to dangerous dimensions. And this to happen in a market which is still sellers! What could you expect in these circumstances, except runaway prices and vanishing supplies. All your success achieved under the Revenue Account, I am afraid, will be nullified by your action under Capital Account. The net effect in the short run might prove to be disastrous; the long-term benefits are remote and shadowy; for, as Lord Keynes has said: "In the long run, we are all dead." So what I would advise is "take care of today, and today will take care of tomorrow."

Sri G. R.—I am thankful to you, Dr. John, for underlining the counter cyclical compensatory policy that should be pursued in fiscal matters. But I am afraid you have taken a singularly one-sided view of the loan policy adopted by the Government. Loans have been raised from the people. Had they not been raised, what would have happened every year to the 10 crores of rupees? Would this huge sum, to use a Gladstonian phrase, "fructified in the pockets of the people"? They should either have spent or saved. You have yourself admitted that there is a spending spree and if they had spent, all the dreaded calamity of the Multiplier Effect you envisage would have willy-nilly occurred; perhaps the orgy of spending, unplanned and individualistic, would have brought greater troubles in the monetary sector than Government spending which has always been planned, regulated and staggered. Further, not all the loans raised have been spent within the State. Capital goods and technical personnel imported at enormous cost should have *pro tanto* transferred the Multiplier Effect to States and countries other than our own. Thus in the existing milieu, purposive expenditure in the public sector, you may admit, is preferable to purposeless expenditure in private sector.

Dr. J.—That is rather a sweeping statement. I am sure the objective of all expenditure is maintenance of full employment, higher standard of living and greater efficiency of production. Public expenditure need not necessarily achieve this objective. Economic efficiency could be increased and enterprise stimulated without any recourse to productive loans, to be spent in the public sector. Reduction of the regressive effect of the Income Tax and Sales Tax, expansion of output by the elimination of the restrictive influences of combinations and trade unions, rationalisation and application of science to industry might produce greater wealth and promote better social welfare than public expenditure by unimaginative bureaucrats.

Sri G. R.—Imaginative or unimaginative, the bureaucrats may have to continue planning production and

Assam: Collection of Funds

The Government have directed that contributions for the relief of the suffering caused by the Assam earthquake may be raised on the initiative of the Collectors. The co-operation of responsible local non-officials and officials would be enlisted and committees will be formed in this connection. Collections are to be made only by members of the Committee and if made by officials, shall be made by officials of Gazetted rank. Government wish to make it clear that no coercion or pressure is to be exercised for raising contributions to these funds. They however are fully confident that the people, moved by the unprecedented devastation caused in Assam, would come forward with spontaneous and voluntary contributions.

promoting enterprises, at least in certain vital sectors where, left to free enterprise, things would take an ugly monopolistic shape. At present, Government by their policy of expenditure are trying their utmost to foster and develop private enterprise. The National Research Laboratories, the Industrial Finance Corporation, State Aid to Industries, Extension Service to Agriculture, protection and subsidy are but a few of the conspicuous examples of the active policy of accelerating industrial development in the private sector. The Madras Government have not encroached into the avowedly private sector. Loan finance has been utilised for the development of the basic industry, agriculture, by the provision of irrigation and supply of electricity, the cheap motive power that would turn the wheels of industry. Even the most rugged individualist would have no reason to impugn this policy.

Dr. J.—I am thankful to you, Mr. Reddi, for clarifying the principles you have been following in the sphere of public expenditure.
—By Courtesy, A.I.R. Madras.

Honorary Correspondents for Government Museum

The Government of Madras have sanctioned the proposal for the appointment of five Honorary Correspondents to the Government Museum, Madras, in each district in the State, in order to help the museum in the collection of antiquities, sculptures and art. The correspondents will be selected from among leading advocates, professors of colleges, scholars, and generally prominent men of the district, who are in constant touch with the remotest parts of the villages.

The functions of the Correspondents of the museum will be as follows: (i) to help in the collection of antiquities, sculpture and other objects of art for the museum; (ii) to stimulate interest in the museum in the general public and to persuade them to present objects of arts to it; (iii) to help in the selection of monuments to be protected as "National Monuments" and in watching their proper conservation; and (iv) to encourage organised visits to the museum.

The staff of the museum will keep themselves in constant touch with the Honorary Correspondents.

The Palayakottai Cattle Farm

By SRI N. NALLASENAPATHI SARKARAI MANRADIAR, Pattagar of Palayakottai

The Palayakottai Pattagar's Cattle Farm is situated at Pudur, hamlet of Palayakottai village, Dharmapuram Taluk, Coimbatore District. The postal address is Palayakottai Post via Erode R.S., South India. This Farm is considered to be the biggest private owned cattle breeding station in India. It is being run by my family for the last three generations. But only during the time of my father, the late Rai Bahadur N. Nallathambi Sarkarai Manradiar, the farm activities were increased on a large scale from 100 to 2,000 head of cattle, and earned a reputation for the Kangayam breed. It was he who practically fixed this type of Kangayam breed, noted as one of the best draught breeds in India. Not only cattle but horses and sheep also are bred here on a small scale. The object of the farm is to supplement the agricultural income by sale of animals and to improve the livestock of South India by the issue of pedigree bulls. This is more or less a seed farm for the issue of pedigree bulls.

This area is best suited for cattle breeding and the soil is of a red loam full of kanker gravel, known as *odai jelli*, which is supposed to be the best land for rearing cattle. Such soils are known to be cool, even though shallow, and are retentive of moisture for raising successful pastures. This is purely a dry tract, where the cultivator has to depend upon rains for his crop. In some parts there are wells which are used for irrigating garden lands. Rainfall is uncertain. Though not sufficient for raising a crop, it is enough for raising pasture. Generally, two or three flushes of pasture are available in a year. The extent of the farm is about 12,000 acres, of which about 4,000 acres has been reserved for grazing as pasture area and 2,000 acres are being cultivated every year in raising foodgrains and fodder crops. The rest are given on lease to the tenants.

Pasture for Grazing

About 4,000 acres of land are being maintained as pasture for grazing the animals. This is the only area wherein private pastures are being maintained by the ryots in their own *patta* lands. Even the ryots who cultivate lands on lease set apart a certain portion of the land as pasture. The whole pasture area is divided into a number of paddocks, from 100 to 400 acres for each paddock and fenced all round with a live fence of *mullukiluvai* (*Balasomendran Berris*), a thorny shrub which is highly drought resistant. As the soil is of red loam full of kanker gravel, it retains enough moisture for pasture, though the rainfall is insufficient. The soil is very rich in calcium and phosphates. The calcareous *sub strata* of the soil gives a sweetness of pasture for the grazing animals and goes to make the fine bones in this breed.

The chief pasture grass is *kolukkattai* (*Pennisetum Cenchroides*). It is a thick succulent variety which can maintain its vitality even under severe drought conditions. The grass is not killed even under ploughing. It seeds freely and its seeds are easily shed. Hence, a few showers will make the pasture very green. The grass is very much relished by cattle. Other varieties of grasses



Sri N. Nallasenapathi Sarkarai Manradiar, Pattagar of Palayakottai

also are found in the pasture, including legumes which make a balanced feed for the grazing stock.

White babul trees abound in the pasture area affording a good shade for cattle during the hot weather, and the pods are very much relished by cattle. In fact, the pods are harvested every year in the season and stored for feeding the animals.

Breeding Techniques Adopted

Horses: Good horses were being bred in large numbers, but after the advent of motor transport the number has been reduced. Now there are about 30 horses of the local Kangayam type. These animals are noted to be good workers and have enough endurance to go long distances.

Sheep: There are about 2,000 head of sheep. There are two varieties; one is a local Kangayam type, which is dark red in colour, and the other is Macheri or Myalambady variety, of a light brown colour with patches. Both are mutton varieties. The flock is maintained purely for manurial purposes. To develop a dual type, both for mutton and wool, the Coimbatore sheep is being graded

with Bikaner ram. The sheep are penned in the fields during nights, and these pens are ordinarily moved every day till the entire field is manured.

Cattle: The main breed of cattle is the Kangayam breed and there are a few Mysore cows, Sindhi cows, Ongole cows and Murrah buffaloes.

The Kangayam Breed

The Kangayam breed derives its name from the Kangayam Division of Dharmapuram Taluk, Coimbatore District, where the breeding of this type of cattle has been in existence for a very long time. The breed in its purest form can be seen here at my Farm and also at the Government Cattle Farm, Hosur, where also the foundation stock had been supplied only from my Farm. Though the animals that are bred in the tract are also Kangayams, there is a huge difference between my Farm animals and the village cattle; for my farm animals had been improved upon by selective breeding for the last forty years and more by my late revered father and a type thereby fixed, which is breeding true to type and serves as a nucleus for breeding and supply of Kangayam pedigree bulls.

The Kangayam is a medium-sized animal on the whole. It is purely a draught type and smart, active and brisk in appearance. The breed is a hardy one and the cattle are excellent breeders and thrive on scanty rations. They are active, have a very good constitution, and a fiery temper.

Cows: There are about 350 cows, all selected from good family lines. The cows are regular breeders and they calve regularly every year. The maximum calvings as reported by my father was 21 and the average is about 16. The colour of the cow is grey or white with black markings, just above the fetlocks on all the four limbs and also in front of the forelegs. Some cows have dark grey markings on the body and face. Generally, Kangayam cows are poor milkers and the daily average yield is about 6 lb. But there are good milkers also, giving about 15 to 25 lb. at their peak.

Cattle Improvement Scheme

To improve the milking qualities of the Kangayam breed without impairing the draught qualities, a research scheme is being conducted here at my Farm by the Animal Husbandry Department, with Dr. D. Pattabiraman as Superintendent in charge of the Scheme, since 1942. I have provided necessary foundation stock, buildings, grazing areas, etc., the entire feeding charges of the experimental animals are borne by me. The object here is not to produce a high yielding type but to produce an utility type of cow, which can rear its own calf and at the same time give more milk to the farmer's family. The average lactation yield of a Kangayam cow is about 1,500 lb. and if that average is increased to 2,500 lb., the object will be achieved. The foundation stock has been completely studied and the progeny has come into lactation now, which has to be studied.

Bulls: The colour of the bull is grey with dark shades over the head, neck, hump, shoulders and quarters. The herd is kept pure by carefully selecting pedigree sires from my own herd, and different family lines are being maintained. The bulls are ready for issue for breeding purposes from 2½ to 3 years of age. Mostly all the bulls are sold

as breeding bulls for rural livestock improvement. Every year about 70 to 80 bulls from 2½ to 3 years old are being sold for breeding purposes.

Bullocks: The bulls that are not fit to be issued for breeding purposes are castrated at the age of three years and they are trained for ploughing and *mhote* work. About 50 pairs of bullocks are also sold every year. The colour of bullocks is grey.

Calves: Kangayam calves are red in colour at birth and the colour changes into grey within a period of four months. For the first six to eight weeks, the calves are allowed as much milk as they require and are lodged in calf pens with a muzzle on, to prevent them from eating mud, etc. After that period, green grass is put before them daily, until they have learnt to eat, when they are turned out to pasture along with other calves. The amount of milk given to the calves is gradually reduced until they are weaned. In the case of promising calves, all the milk is allowed for them; in cases where the calves do not get sufficient milk from their dams, they are brought up through foster-mothers or by hand feeding.

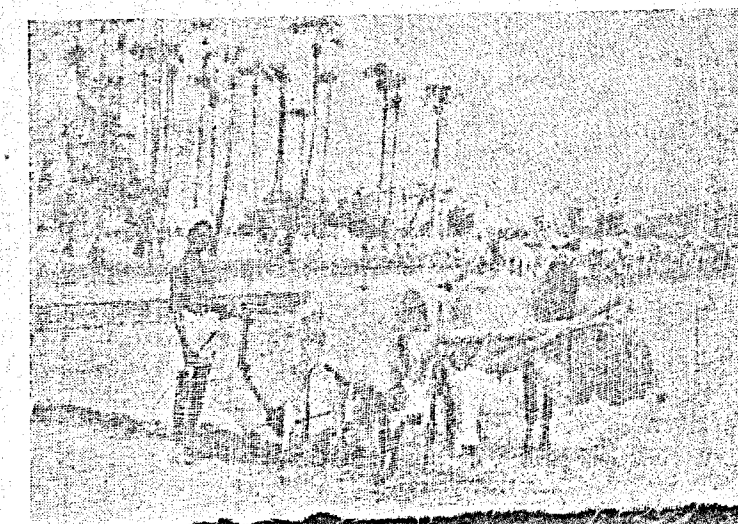
Heifers: Heifers are also grey in colour and they are reared only under pasture conditions. The heifers mature at the age of three to four, and they drop their first calf after 36 to 48 months.

Management of the Farm

The calves, immediately after they are weaned from their dams, are separated sex-wise and put into grazing areas day and night in batches of 50 to 100—calves below one year in one paddock, one to two years in another paddock, two to three years in a third paddock and so on. According to the age group and sex group, the animals are grazed separately and they are reared only under ranch conditions. Water facilities are provided in the grazing areas through *varis* (wells sloped in such a way that the animals can easily get into the well and drink); the idea is that they should graze at their will, drink at their will and roam and rest at their will; this makes them hardy and strong, as they are brought up under open air conditions. Up to 2½ years old, they are not fed with any concentrates.

There are attendants to look after the animals in the grazing areas. Each attendant is in charge of three to

Training for the plough. Note the novel technique of two animals tied to one end of the yoke



four paddocks. He sees to the animals both morning and evening and reports to me on their conditions, grazing, water facilities and health of the animals. The animals are also periodically inspected by me in the grazing areas. The number in each paddock is reduced or increased according to the availability of grazing, etc.

Training and Handling

As the young ones are brought up under semi-ranch conditions until 2½ years old, great skill and patience are required to train them. First of all, they have to be roped and nose-stringed. For this only trained and experienced attendants are required. Otherwise, accidents are likely to happen.

A special enclosure of masonry walls ten feet high all round has been erected and the animals are turned into the enclosure. They would easily jump over the walls if these were lower in height. Then experienced attendants secure the animals by throwing the rope from a distance and the animals are muzzled and tied to a peg for a few minutes to start with and then released. Otherwise, they will fall violently and fracture their limbs in the act of trying to free themselves from the rope.

Special ropes are used for the first time and the pegs also are very strong and buried about three feet deep. In the course of two or three weeks, the animals get accustomed to being tied up and gradually handled and led by the ropes. It is a grand sight to see these animals



Top: Draught animals under training.

Centre: At the water trough.

Centre (right): A prize specimen.

Right: Feeding-time. Note the clean surroundings of the shed.

fed in an open yard evenly in a straight line in batches of 30, twenty feet apart, in rows of 8 to 12. They are fed well, washed and groomed daily.

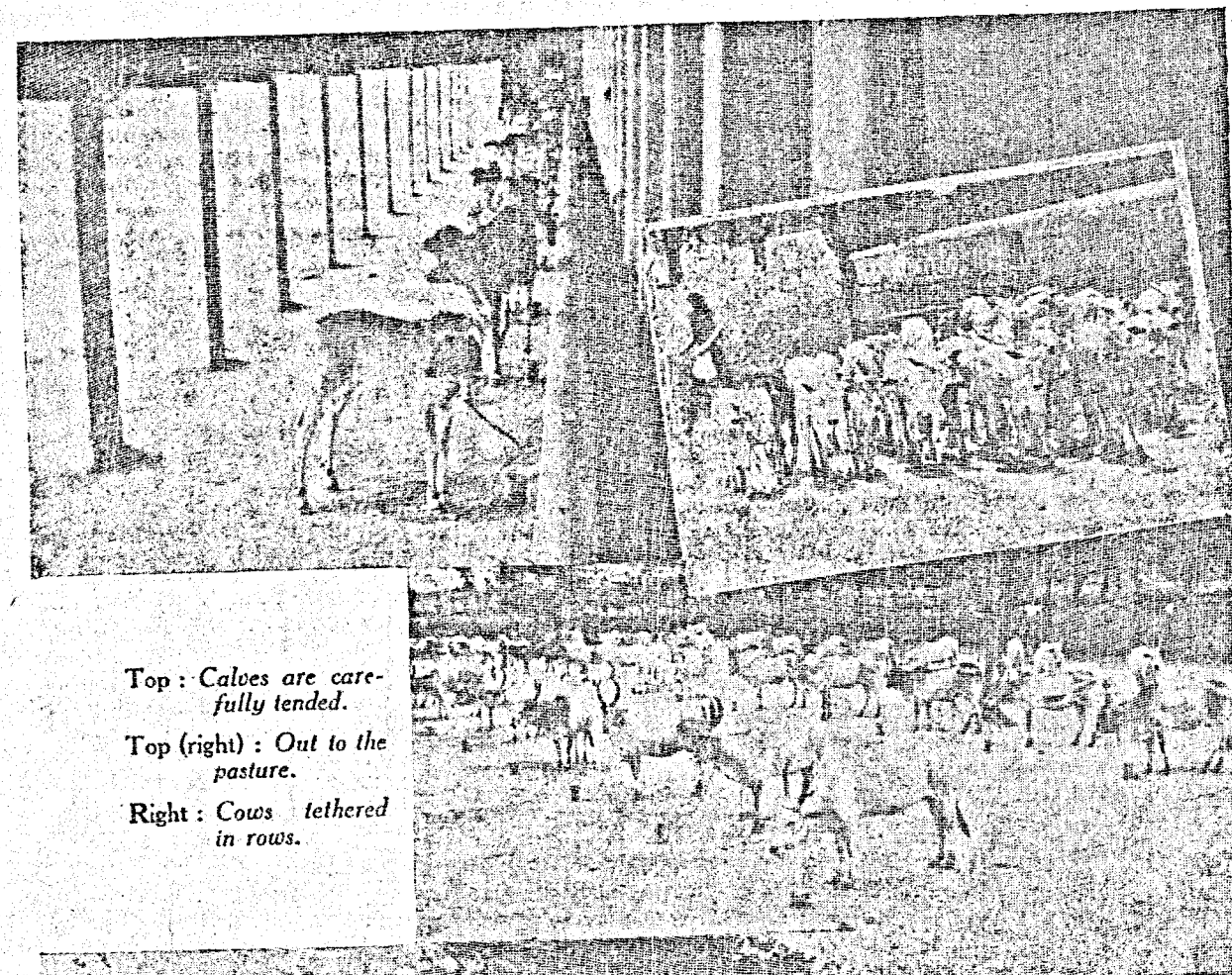
Feeding the Animals

About three to four months in a year, the marketable young stock is fed with concentrates comprising groundnut cake, rice bran, cottonseed, residue of grain crops as cholam, ragi, etc., and white babul pods, all crushed and fed in a liquid form in tubs, twice daily. For feeding, special stone tubs are provided, wherein forty animals can be fed at a time. Every attendant is in charge of two animals which are brought to the feeding trough and

fed with their usual ration in batches of twenty at a time. About 400 animals have to be fed like this daily for four months in a year.

Special feed of blackgram, horsegram, cow-pea, greengram, fenugreek, all soaked and ground into a paste and mixed along with concentrates, are fed to the animals intended for sale. Mineral mixture is also added to the concentrated feed. In addition to the feeding of young stock, cows in milk and work cattle are also fed with concentrates for six months in a year. When plenty of grazing is available, the animals are not allowed any concentrates.

(Continued on page 36)



Top: Calves are carefully tended.

Top (right): Out to the pasture.

Right: Cows tethered in rows.

Left: Regulated feeding is a noteworthy feature at the Farm.

Tad Gur Khabar:

Palm Gur Development Work

Many enquiries relating to the course of study conducted by the Central Palm Gur Training School at Cuddalore are often received. Though the prospectus usually sent out is exhaustive, still many points require elucidation. This note gives a brief account of the activities of the school. The Central Palm Gur Training School was started in June 1948, at Moodbidri (South Kanara District, Madras State) with a view to train workers who would be in a position to start palm gur industry and organise them on sound basis. The school is now located at Cuddalore N.T. (South Arcot District, Madras State).

The school is on the Beach Road, 1½ miles from Cuddalore (New Town) Railway Station. It is situated in a garden where there are a good number of coconut, palmyra and few date palm trees. Besides, there are also palm trees in the vicinity which are available for tapping purposes on rental basis. Thus it will be seen that the school has facilities for training workers in the manufacture of palm-jaggery by improved methods in all the three kinds of palms. The school has boarding and lodging facilities for fifty students.

Clear instructions are contained in the prospectus. A candidate whose application is accepted must deposit a sum of Rs. 215 in advance. He must wait for a written order either from the deputing Government or from the school. In some cases, trainees have come here ignoring these arrangements. It should be noted that this causes unnecessary financial loss to the candidate.

Tapping Seasons and Training Sessions

When the tapping seasons for the various palms are different, the courses of training vary accordingly. The school works throughout the year and runs three sessions of four months' duration each. The first session is from 1st August to 30th November. In this locality this season is best suited for the tapping of coconut trees and at the very end of this season we can expect tapping of the palmyra trees. The second session is from 1st December to 31st March. In this session all the three varieties of palms are tapped. The third session is from 1st April to 31st July when the palmyra and the coconut seasons are the main features and the date palms have only a secondary place.

From these schedules, it will be seen that the second session is the best as far as tapping process are concerned. Not only the trainees are mainly to concentrate on the production of neera and manufacture of good quality palm-jaggery from a given sample of neera, the difference in neera from one month to another and the students coming from various localities do not feel any anxiety about training. Furthermore, in the case of private candidates, the Government is under no obligation to provide them with any facilities. In case they choose to do so, they will have to bear the full cost of the training.

Ideal of Service to Villagers

All the students trained so far have been greatly impressed and the majority of them realise that in this Government Institution, the nature of the discipline maintained and training given is in complete conformity with the ideals for which palm gur stands. The palm gur industry is looked upon by the school as a boon to the poor villagers who take to it. The students are trained with this important aspect in view. The students are expected to serve the poor villagers by actually going out for field work in the villages and teach the tappers the methods of making fine quality of palm gur and thus help them to improve their economic condition.

There are no special facilities for research in the school. But on their own initiative some members of the staff are devoting part of their time to some research on aerial ropeways, furnace and pot making.

The School will be grateful to any trainee who brings with him samples of palm products available in his district. This appeal is made with the idea of enriching the Palm Gur Museum attached to the school.

During the year 1949-50, new Palm Gur Development Schemes worth Rs. 8,58,245 were taken up by the following State Governments:—

- (1) Madras, (2) U.P., (3) Bihar, (4) Orissa, (5) Coorg, (6) West Bengal, (7) Bombay, (8) Madhya Pradesh, (9) Bhopal, (10) Saurashtra, (11) Mysore, (12) Rajasthan and (13) Hyderabad.

A subsidy of Rs. 2,05,523 was given by the Central Government, and 54 educated young men were trained at the Central Palm Gur Training School, Cuddalore, as Palm Gur Organisers and Instructors. Further, 1,006 villagers including 14 women, over two score displaced persons and a substantial number of Harijans were trained in palm gur, palm sugar making and palm tapping in the various States. Both these types of trainees were stipendiary nominees of their State Governments.

The Government of Bombay has taken up a special five-year Scheme for production and distribution of neera (sweet palm juice) as a beverage. The Scheme is to be implemented in the course of the coming five years. It will cost the Bombay Government about Rs. 64 lakhs and the recovery from the sale of neera is expected to be Rs. 65 lakhs, thus leaving a net income of Rs. 1 lakh. In Madras State about 1,500 Co-operative Societies have so far been organised for the sale of palm jaggery. Their membership is about 120,000.

Experiments at Cuddalore

At the only Institution under this section, the Central Palm Gur Training School at Cuddalore, experiments on connecting tall palm trees by means of aerial ropeways for reducing exertion involved in climbing up and down palm for collecting juice were carried on during the year. The experiments have proved successful. By this

Tad Gur Khabar

A monthly bulletin called *Tad Gur Khabar* which serves as a clearing-house information and experience gained on Palm Gur work in the various parts of the country, is issued by the Section in Hindi and English editions. Its present total circulation is about 1,500 copies per month.

The first session of the All-India Conference of the Palm Gur workers and officers engaged in the development of Palm Gur work taken up by the various State Governments, was held at Sarisha, 24-Parganas, West Bengal, in April 1949. A complete Exhibition of the processes and implements, etc., was also put up alongside the Conference.

means a tapper will be able to handle not less than double the usual number of trees he is able to do at present without the ropeways. Experiments on the preservation of neera under the guidance of the Section were carried out in more than one Research Institute.

Exhibitions of the processes of palm gur making and other cottage industries in which the various products of the palms are used as raw material, were held at Farukabad, Lucknow and Roorkee in the Uttar Pradesh and in Madras City during the year. The Section also participated in the Sarvodaya Exhibition held at Patna in February 1949, organised by the Bihar Provincial Congress Committee.

1949 1950

GOVERNMENT OF MADRAS

PALMGUR COOPERATIVES

MADRAS STATE

DATE: 12-12-1949

AGENCY: 30547

1505

113126

Rural Welfare and Village Planning

By SRI M. BAPINEEDU, B.Sc. (CORNELL), [M.Sc. (CALIFORNIA), M.L.A., Government Whip,
President, Harijan Sevak Sangh (Andhra Branch), Secretary, Madras Industries Association.

So far as Madras State is concerned, the Government has been the pioneer in several fields of rural reform and reconstruction. With their new angle of vision, their attention focussed on the villages and on the common man, they set about improving the conditions under which landless labourers lived and slaved. The Government took up the work of Zamindari abolition and have made considerable progress in the direction of elimination of these middlemen. Prohibition came as a blessing to the rural as well as industrial worker who was throwing away all his earnings on the demon of toddy, leaving his wife and children to starve and die.

Now the rural labourer is able to feed himself and his family within his means, and on the whole, there is little doubt that he and his people are far happier today than ever before in their lives. Temple Entry, Removal of Civil Disabilities and free education and other facilities for Harijans are among the other substantial contributions made by the Congress Government to the improvement of the country's welfare. I may also mention incidentally, that Madras has been pioneer in the matter of several other pieces of legislation, namely, abolition of animal sacrifices, Hindu Religious Endowments Act now before the Legislature, etc. Madras was the first to create a Women's Welfare Department and to employ women in Government offices in large numbers.

Economic and Social Welfare

The most important contribution of the Madras Government to rural rehabilitation and development work in this State is the firka development scheme now renamed Rural Welfare Department for intensive rural reconstruction work in selected firkas as centres. The scheme is so carefully planned and promises to yield such excellent results that it would be well for other States to adapt it to suit their own needs and implement it in full. At the end of 1946 the Government of Madras set up a new department known as the Firka Development Department (now Rural Welfare Department) with a Director with the object of accelerating economic development and promoting social welfare in 34 selected firkas (or groups of villages containing in all 2,859 villages) by organising the villages for productivity, full employment, and good social and living conditions with the active co-operation and participation of the villagers.

It is for enriching and resuscitating village life that the Madras Government inaugurated the firka scheme based on the Gandhian plan of rural reconstruction. Its aim is to create in the villagers an active and intelligent interest in their own problems and to make them self-confident and self-reliant. Special emphasis is laid on the improvement of the economic and sanitary conditions in order to organise the villages for a happier, fuller and more prosperous life in which every individual villager will have the opportunity to develop both as an individual human flower and as valuable unit of an integrated society.

The intention of this scheme is that the selected firkas and centres should be developed on the basis of self-sufficiency to the greatest possible extent within the limitations imposed by modern conditions, so that there will ultimately be a strong superstructure based on the co-operation of well-organised units. The aim of the scheme being all-round improvement of rural life, it is clear that its success depends largely on the co-ordination and co-operation of the various departments of Government such as Education, Agriculture, Irrigation, Health, Industries, etc., etc.

Programme of Work

The programme of work is being carried on in five distinct spheres:

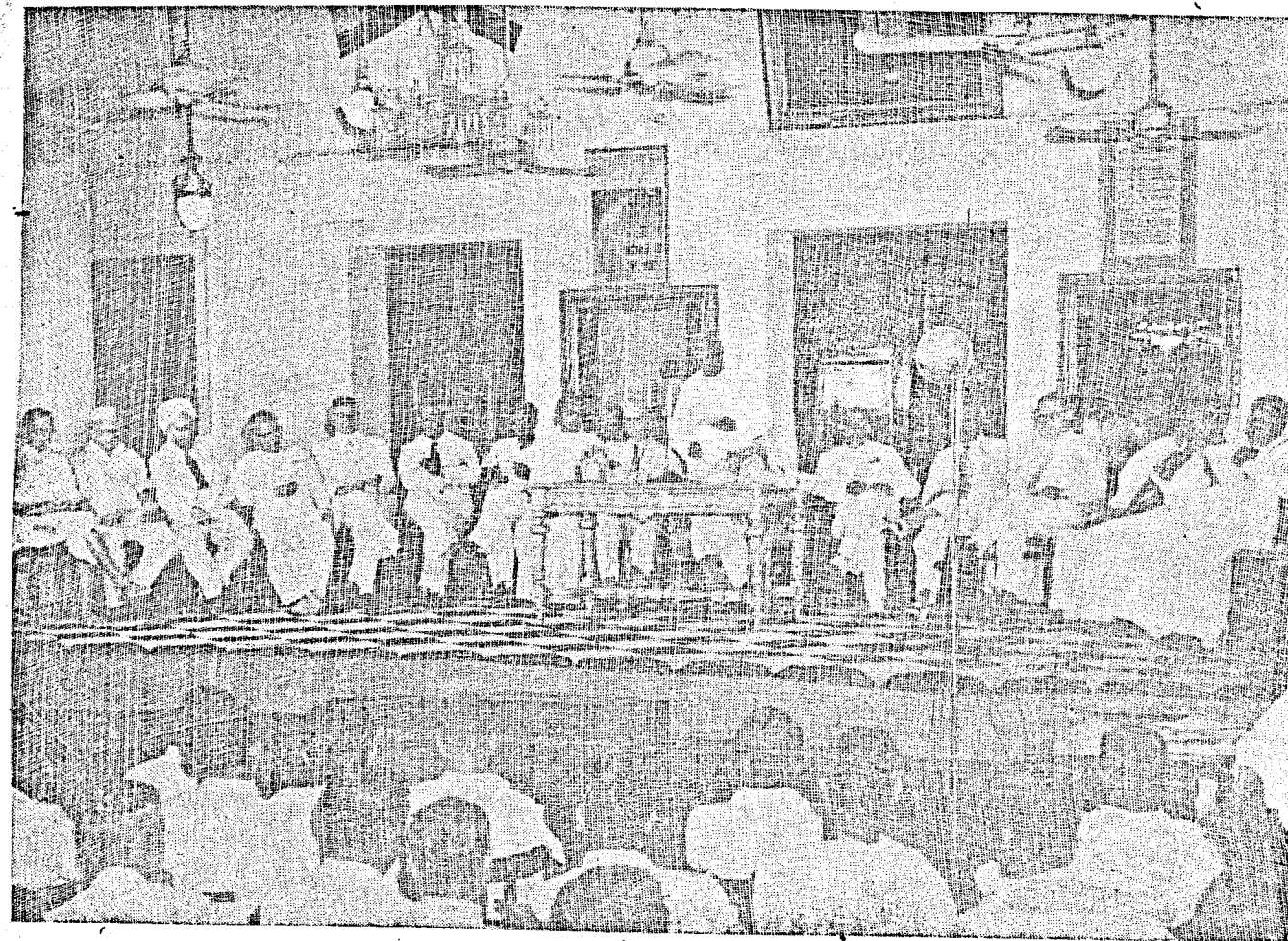
(1) Agriculture and village industries; (2) Sanitation, Health and Housing; (3) Village Education; (4) Village organization; and (5) Village culture.

The Government started the intensive rural reconstruction work in the selected firkas and centres with a view to gradually extending it throughout the State after remedying at every stage any defects that might be noticed in its working.

A firka is very convenient unit for this type of work. The first firkas to be selected were those in which some work had already been done in model villages or where there were some non-official agencies already at work. The selection was also based, of course, on the general backwardness of the firka in regard to communications, sanitation, lighting, water-supply, etc., on the availability within easy reach of electricity and the presence of favourable conditions for intensifying the production of handloom cloth and development of cottage industries.

The Collector of the district has been placed in direct charge and is primarily responsible for the successful working of the rural reconstruction scheme in his district. Each selected firka is in charge of a firka development officer of the rank of Deputy Tahsildar and under him there are gramasevaks of the rank of Revenue Inspectors, one for each of the four or five groups into which each firka or centre has been divided. The necessary subordinate staff have also been provided for. A Provincial Firka Development Officer now called Director of Rural Welfare of the status of a Head of a department, has been appointed to be in direct provincial charge of the Government's scheme of rural reconstruction, khadi and cottage industries in the selected areas. He is generally concerned with the technical aspect of the scheme and is responsible for its proper co-ordination and execution.

A special fund of Rs. 4 crores has been constituted for financing general schemes of rural reconstruction, Harijan uplift, cottage industries and khadi. A sum of rupees one crore has been set apart from this fund for financing



The Third All-India Leprosy Workers' Conference was held recently in Rajaji Hall, Madras City, under the presidency of Dr. E. Muir of the Calcutta School of Tropical Medicine. Dr. T. S. S. Rajan, Minister for Health, inaugurated the Conference.

general schemes of rural reconstruction. The Government contributed a further sum of Rs. 5 lakhs to the fund for village reconstruction and Harijan uplift during 1949-50.

The Government of India have recognised the scheme as eligible for financial assistance from that Government. The entire expenditure incurred during 1947-48 was met from the Government of India grant. Fifty per cent of the expenditure incurred in 1948-49 and also in 1949-50 was subsidised by the Centre. Many difficulties have been encountered in working the scheme. Nevertheless, so far substantial results have been achieved.

The scheme has yielded good results. Enthusiasm has been created and people have responded with contributions in kind and cash in a generous measure for the construction of wells, roads and buildings for schools, libraries, reading rooms, dispensaries, child and maternity welfare centres, etc. In order to foster the spirit of self-help, works are generally taken up and carried out only in those places where the villagers come forward with their contribution either in cash or in the form of materials or labour; and one cardinal and wholesome principle uniformly followed is that the execution of these works is entrusted to the villagers who are to be benefited by the scheme and not to an outside profit-earning agency. This

has helped remarkably in stimulating initiative and rousing enthusiasm.

(Adapted from the Paper read at the Third Annual State Conference of Social Work held at Madurai.)

Refund of Fines

The following Press Communiqué is published for general information:—

In G.O. No. 1503, Public, dated the 4th July 1946, the Government ordered the refund of fines imposed by courts and collected from persons who took part in the Individual Satyagraha Movement in 1940-41, and the Civil Disobedience Movement of 1942. The persons who paid the fines from 1940 onwards were accordingly asked to apply with certain particulars, to the District Magistrate of the district concerned or the Commissioner of Police, as the case might be, for refunds. It has now become difficult for the Magistrates concerned to trace out the papers, verify the particulars and sanction refunds. It is therefore announced for the information of the persons concerned that all applications for refund of fines should be submitted before the 1st January 1951 and applications received after that date will not be entertained.

AGRICULTURE

AGRICULTURAL NEWS LETTER

Island Cotton in West Coast.—Cotton stands transplanting and cut stems root freely. This is revealed by trials at Mangalore, Nishahar and Pattambi. The cuttings and seedlings establish better when transplanted on rainy days. No difference between the seed-planted and transplanted plants was seen in growth.

Vellai cholam.—Two new strains of Vellai Cholam, secured at the Millet Breeding Station, Coimbatore, bearing the station numbers Co. 12 and Co. 13, have recently been released to the cultivators for cultivation. Strain Co. 12 is a selection from a variety of Uppam or Kistavellai cholam of Palladam taluk of Coimbatore district. This high yielding strain is of special importance at the present period of food crisis and it also satisfies the long felt need for a strain of very short duration among the irrigated Vellai cholams. It matures in 85 to 90 days and can be grown in January to April and March to June. This strain has compact panicle, red glume and light chaffy white grain. Its short duration is a great asset and it is bound to be popular in areas of limited water resources and also in places where intensive cultivation is practised. This strain has already undergone a series of trials, both at the Millet Breeding Station and in the districts. Its performance has been uniformly good in all the control trials. Co. 12 was earlier than the local types by two weeks in Tirunelveli district and yielded 19 to 20 per cent more grain than the local. Reports of high yields, ranging from 15 to 55 per cent more grain than the local were received from Coimbatore, Tiruchirappalli and Cuddalore districts also.

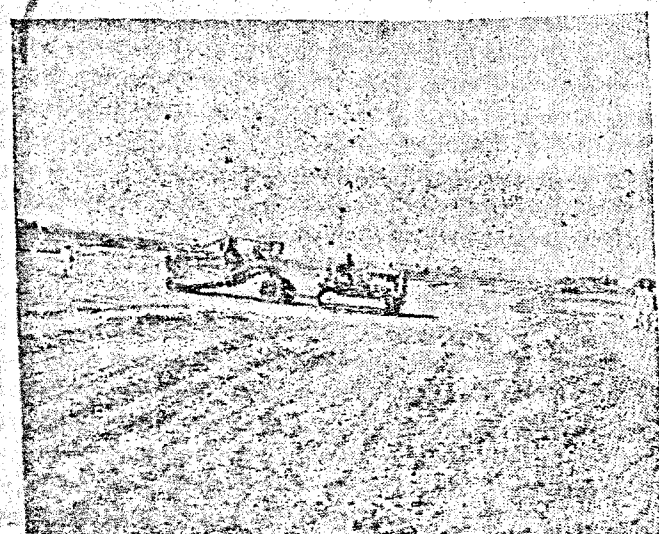
The strain Co. 13 originated from another irrigated variety called Kumbalangi cholam of Gobichettipalayam. It is similar to cholam strain Co. 8 in respect of yield and duration, but differs from it in having bolder grains. This strain meets the demand for high yielding strain of Vellai cholam, having a bold grain and a duration of 105 days. In one trial at the Millet Breeding station for several years, and high yields exceeding 3,000 lb. per acre have been recorded. In district trials, it was found to be superior to the local types of Gobichettipalayam, giving 15 per cent increased yield of grain. It is proposed to extend the trials of this new strain to other centres of irrigated cholam, present at Coimbatore, with a view to supply nucleus seeds to the cultivators who agree to try this in systematic series, who wish to try these new strains, are requested to write to the Millet Specialist, Lerley Road P.O., or the District Agricultural Officers for their requirements of seed.

Control of Millets Grasshopper pest.—The millets grasshopper was found occurring as a pest in Rajampeta and parts of the area of Cuddalore district for the last three years. This grasshopper pest not only badly defoliates the crops but also causes considerable damage in the month of June. The control of this pest is the cause of the year 1948,

the fields were left bare in some of the areas and there was nothing left for the ryots to reap. The fodder for cattle was also lost.

Control measures.—It is necessary that these grasshoppers should be destroyed while still young with green colour and before they become adults with wings. In so destroying the pest, we not only save the crop of the present year but even prevent the pest from laying eggs and carrying itself to the next generation in the following year. For the destruction of the pest in the field, Gammexane D. 025 dusting at the rate of 20 to 25 lb. per acre had given spectacular and effective results in the campaign in Cuddalore district. In a short time after dusting, we find the young hoppers falling down to the ground in numbers. The insecticide is kept in stock in all the Agricultural Departmental depots for sale to ryots. For use with food crops, pulses, vegetables, and root crops, the Government charges the ryot only half the cost plus incidental charges as a concession to encourage the savings of these crops from insect pests and disease. At this concession rate for dusting cumbu, cholam and tenai crop, it costs about Rs. 4 per acre and since the average yield per acre of these irrigated crops in the areas is 1,500 lb. per acre, a ryot is sure to save at least half of this costing Rs. 100.

There is advantage in killing the pest in its early stage of 'young hoppers'. The planted fields, nurseries, left overs in nurseries and grassy patches round the fields will have to be dusted with Gammexane. Dusting can be done by slashing the insecticide with hand and the Agricultural department has also some dusters for supply to ryots. During the year 1949, a total area of nearly 1,700 acres in



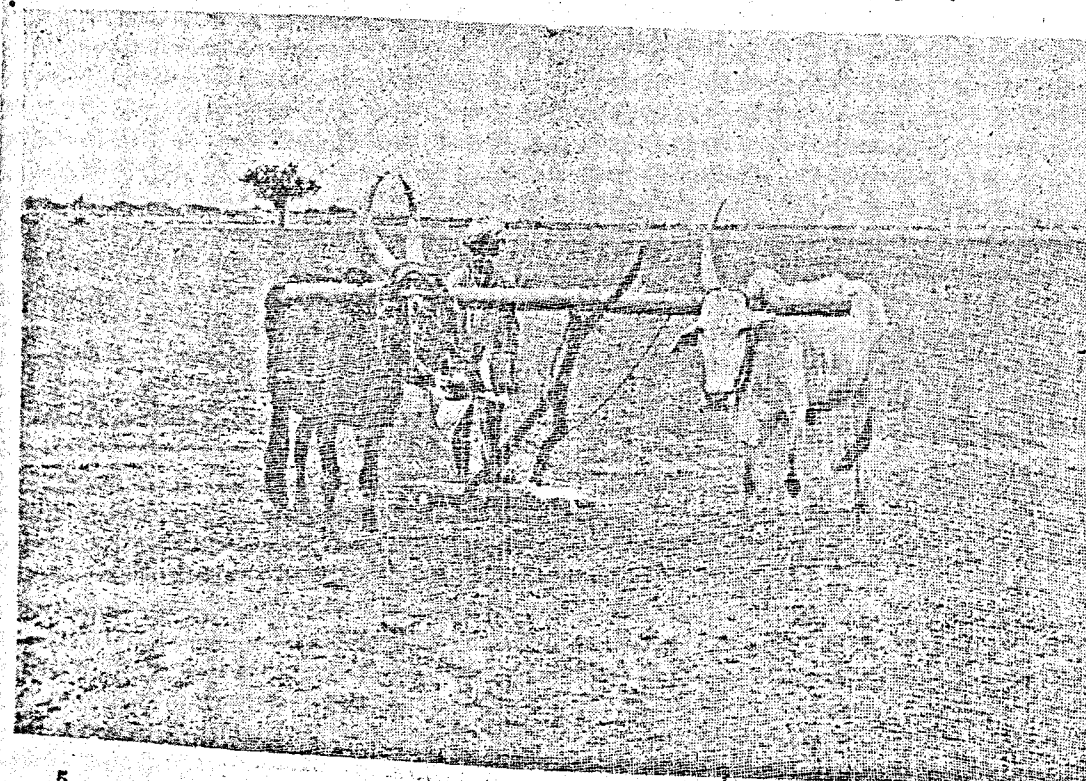
AGRICULTURE

Rajampeta and Vontimetta areas was dusted with Gammexane, ridding these areas of this notorious pest. There was considerable response from the villagers in the areas in adopting the control measure and the relief afforded by the treatment was fully availed of. It is hoped that the ryots in other places, where they have this pest, would report its occurrence to the Agricultural department and save their crops from this bad pest of cereals.

Fungicides treatment of seeds.—In recent years, seed treatment before sowing has been accepted as a regular farm practice, in order to eliminate losses due to seed-borne diseases or soil-borne diseases, which affect the plants in the seedling stage. With the urgent need for greater food production, greater attention must be devoted to seed treatment, in order to increase the stand and thereby increase the yield. Many seed-borne diseases are prevalent in our food crops, which will respond to seed treatment. The foot rot of rice and helminthosporiose of rice are controlled by treating the grain with organomercury compounds like Agrosan GN or Ceresan. Grain smut of sorghum is easily checked by treating the seed with sulphur powder. Seed dressing with Ceresan or spargon is very useful in preventing damping off and other diseases affecting tomatoes, peas and beans. Sweet potatoes are treated for protection against tuber-borne rots and some soil-borne fungi. Seed ginger is dipped in a dilute solution of mercuric chloride to prevent storage rot. These treatments are comparatively cheap. But some of the chemicals used are poisonous and the materials treated should be used only for sowing and not for food.

Ratooning of sugarcane.—Ratooning of sugarcane is becoming a common practice and many ryots ratoon their crop repeatedly three or four times or even more. Their main object in ratooning is to save the cost of preparatory cultivation and the cost of seed. But they generally neglect all the items of cultivation and are satisfied with whatever yield that could be got. This is not correct. Ratoons require more attention than plant crops because (a) the field had no preparatory cultivation and hence initial fertility is low; (b) cane after cane follows and hence there is no rest for the land; (c) there is possibility of carry over of pests and diseases of previous crops; (d) ratoons are generally of poor vigour in growth in later stages. It is, therefore, essential to take particular care of the ratoons, in order to get higher yields and also to prevent rapid soil deterioration. The following are recommended for ratoons: (a) harvest the plant crop flush to the ground or even one to two inches below the ground; (b) disturb the ridges and furrows by working a light plough; (c) give a heavier dose of manure than to plant crop; (d) remove unthrifty by August-September; (e) rough out smutted clumps and burn them; (f) ratoons mature earlier and they may be harvested one or two months earlier than the corresponding plant crops. Ratoons of the different varieties are to be harvested first before plant crops in factory zones, to increase recovery per cent.

Sugarcane for water-logged conditions.—Sugarcane is generally grown in wet lands one in three years, in rotation with paddy. Naturally, when sugarcane is preceded and succeeded by paddy, it is surrounded by paddy crop on



Efficient ploughing is a factor in increased production.

Literacy and Adult Education

By SRI J. L. P. ROCHE VICTORIA, Minister for Food

The subject "Adult Education" has assumed great importance now in view of the adult franchise in the New Constitution. As matters stand, it is likely that elections under the new constitution may be held next year and it is Government's desire that as many adults as possible should become literate before the elections so that they may exercise their votes wisely and intelligently and elect the right type of candidates to be their representatives in the new Legislatures which will come into existence in the near future.

Adult Education was not taken up seriously in the past. For the first time in the history of the Education Department, a scheme of Adult Education was sanctioned in 1948-49. Prior to that year education of adults was left to voluntary effort. Local bodies and private agencies which maintained night schools for adults were given grants from Provincial funds if the schools maintained were recognised by the Education Department. As stated above it was only in 1948-49 that a definite scheme was sanctioned by Government.

Features of the Scheme

The salient features of the scheme are :

(1) Opening of adult schools; (2) Training of teachers in adult literacy work; (3) Opening of rural colleges; (4) Citizenship Training; and (5) Audio-visual aids for adult education.

(1) According to the scheme the opening of 100 aided adult literacy schools was sanctioned in 1948-49 and the District Educational Officers were authorised to permit their opening. The rate of grant was Rs. 12 per teacher, Rs. 8 for salary and Rs. 4 for contingent charges. Local Bodies which opened adult schools should meet the expenditure on them from their own funds.

(2) The Government arranged for the conduct of short courses for training teachers (about 554) in adult literacy work. These teachers after training will open schools for adults and receive grants from State funds.

(3) The Colleges are intended to give education to adults who are already literate. In these colleges lectures will be arranged through professors in colleges and graduate teachers in high schools. The services of lawyers and doctors can also be utilised for this purpose. The lectures will be remunerated at a rate of Rs. 3 per lecture. Rural colleges opened under private agencies will be aided from State funds. There are six rural colleges, three for men and three for women in the following places :—

Men—Badagara; Arcot; Bentapadu.

Women—Waltair; Tanjore; Kozhikode.

Paper on "Literacy and Adult Education" presented by the Hon'ble Sri J. L. P. Roche Victoria, Minister for Food and Fisheries, at the Third Annual State Conference of Social Work held at Madurai on 30th September 1950.

(4) Series of courses were authorised to be conducted for training students in citizenship training and youth leader movement.

(5) The Director of Public Instruction was asked to purchase projectors and films for the promotion of adult education. Projectors and films will be kept in the offices of District Educational Officers. They will be lent to educational institutions for adult education purposes.

The scheme was also extended during 1949-50 on the same lines as was introduced in 1948-49.

Central Government Grants

The Government of India sanctioned a special grant of Rs. 1.57 lakhs towards the expansion of the adult education scheme. It was stipulated by that Government that in addition to utilising the grant sanctioned by them the State Government should spend from their funds an amount equivalent to the Government of India grant. With the help of a special grant from the Government of India, a supplemental scheme was framed. The main item of expenditure connected with the scheme is the opening of 500 adult schools and the purchase of five motor vans at a cost of Rs. 1 lakh.

The Government of India have also sanctioned an additional grant of Rs. 6.86 lakhs towards the expansion of adult education. This together with the share of the Madras Government comes to Rs. 13.72 lakhs. A scheme to spend this amount has been drawn up. The salient features of the scheme are briefly as follows :—

"The scheme consists in the main of the continuance of the 773 Adult Education Centres now said to be functioning, the training of 2,480 teachers in the four linguistic areas, and the starting of another 1,680 Adult Education Centres within the next two years with the aid of the newly trained teachers. Other item in the scheme are desirable adjuncts such as the training of 100 graduate teachers in Adult Education methods, vacation settlements for college students who will be asked to help in Adult Education work, the setting up of District Social Education Council and Honorary District Organisers for each district, grants to local Adult Education Committees, provision of five film vans, remuneration to authors for producing suitable literature for adult literates and the establishment of 16 rural colleges."

Main Strength of the Movement

The main strength of the movement lies in the amount of public co-operation and the extent of help of non-official organisations. The South Indian Adult Education Association has been in existence since 1939, and it has held seven conferences. Their chief work has been to educate the people on the importance of Adult Education. If today, the Government have come forward with practical schemes, it is not in any small measure due to the continued propaganda carried on by non-official organisations like the S.I.A.E. Association. If you educate a man it is generally an individual affair, but if you educate a woman you educate a family. That is why I consider that women's

Social Service Aims at Welfare State

The field for social service is vast and unlimited. Our country today presents a vast picture of social unhappiness which calls for the display of any amount of service and talents of social service agencies. Centuries of degeneration of social life in our country, caused by the economic exploitation and also by the indifference and apathy of the foreign rulers, have left us today in a pool of ills and suffering. Events of recent history like the partition of the country have given rise to problems, unparalleled for the stress and strain caused thereby. What is more, it looks as if the vicissitudes of seasons and the vagaries of Nature are also vying with one another in bringing the sufferings to perfection. Every one of us knows that the political independence, which we attained, has brought in its wake immensity of problems which call for every ounce of our courage to tackle them.

To rest content with the attainment of our country's independence as the goal of our national ambitions is only to live in a fool's paradise. The political independence attained by us is not an end in itself. It is only a means to an end, the end being the welfare and happiness of the people. A 'Welfare State' we should strive to be in every sense of the term, securing to our people the freedom from suffering and the freedom from want with regard to the necessities of life. Social welfare and happiness shall be the concern of every right-thinking individual and every organisation, governmental or non-official.

The picture which our long neglected rural side presents to us today, demands application of the social welfare activities in rural areas, much more intensively than in towns and cities, where the amenities of improved social life are larger. The countless villages it is, that call for greater attention for tackling the social problems; because it is there that conditions of social life are far from satisfactory. The village shall not be neglected or ignored. The village has been the basic unit of our country's structure from the very ancient times. If our national edifice is to be built on strong foundations, we have to start our work from the basic unit of our social structure, which is the village. The rejuvenation and revitalisation of life in the village, and the resultant happiness and well being of the common man, the villager, will be the infallible index of our national well-being. The villager's welfare is the acid test of our Nation's welfare and prosperity. Hence the need to make a greater effort and pay greater attention for improving the lot of the villagers, who have been relegated to the position of unimportance all these years. So, what is needed is the decentralisation policy, with regard to the application of social welfare work, emphasising the needs of the villages more.

It is in realisation of the importance of improving the social life of the common man that the Madras Government has embarked on very many schemes to ameliorate the social conditions of the masses. In many respects, Madras feels proud of being the pioneer in implementing measures of social welfare. Firka development, basic education, Harijan uplift, women's welfare, etc., are but a few of the several fields of social service undertaken by the Madras Government. In implementing the schemes for improving the social life among the people, Madras thinks that no prize is too big for the same. That Madras has gone ahead with its scheme of Prohibition as a pioneer in that field of social reform, unmindful of the heavy loss of revenue incurred thereby, will ever remain as an illustrious event in the history of social reforms.

Madras has pushed through with its great and historic reform of Prohibition with faith and courage, dedicating it as the most fitting memorial to the Father of the Nation who delivered the goods to us. But the critics of this social reform are perhaps never tired of depicting a gloomy picture about its success, as they are more attentive to the lapses and the cases of infringement of Prohibition laws, than to the vast general good it has conferred on the people. Prevalence of Prohibition crimes, there is. But that is no argument for abolishing Prohibition, even as the prevalence of theft, robbery, dacoity murder, etc., despite, the enforcement of the Indian Penal Code, is no argument for scraping it off the Statute Book.

P. S. KUMARASWAMI RAJA

organisations or institutions where women predominate, have a special responsibility in the matter. Given the opportunity and means it is the duty of all responsible citizens of this great Republic to see that our people when they go to the polls next year, exercise their rights with discrimination and understanding.

As pointed out by His Excellency the Governor of Madras some time ago : "Our Constitution is based on adult suffrage and in this State alone the number of voters is over 26 millions. As a contrast to this figure, the literacy percentage for this State is only 8.1. That is to say, a

great mass of our voters do not even know how to read or write." and again :

"Your reward will not only be the foundation of our democratic Republic on firm and lasting ground. Your reward will also be the gratitude of thousands of your fellow citizens to whom you would have opened a new chapter in life, and to whom you would have afforded new opportunities for economic and social improvement and within whose reach you will be bringing all the rich treasures of our literature and of the world's knowledge."

Financial Aspect of Problem

There was some fear expressed recently that Adult Education schemes might reduce the amounts which should be spent on Elementary Education. If we look up the figures in the Education Budget, we will find that the allotments under Elementary and Secondary Education are going up every year and the amount now allotted to Adult Education is a paltry sum compared to the whole Budget.

Out of the total Education Budget for

	RS.
1948-49	8,85,93,573
1949-50	9,41,60,600
1950-51	9,95,08,000
the allotments made for	
Secondary Education—	RS.
1948-49	93,61,879
1949-50	1,18,25,900
1950-51	1,20,97,100
Primary Education—	RS.
1948-49	5,90,64,359
1949-50	5,89,14,300
1950-51	6,10,69,400
Adult Education—	RS.
1948-49	63,123
1949-50	3,34,900
1950-51	1,92,600

Need for Wholehearted Campaign

Are we not justified in spending this amount to make restitution to the grown-ups who were denied the opportunity of learning in their childhood? England and the U.S.A., where the percentage of literacy is almost cent per cent, are still carrying on their Adult Education activities and we are still taking lessons from them. It is needless to point out how much more we must do in this country where the percentage of literacy is just the reverse of that in those advanced countries. The U.N.O. has realised the fact that such appalling illiteracy in this part of the world will prove the weakest link in world progress. A special section of the UNESCO organisation is studying the problem, holding seminars, and sending out its experts to

The waste lands of Vengathur village are being cleared by the villagers for extensive cultivation. Picture shows the Prohibition and Public Works Ministers inspecting the reclaimed tracts

Prizes for Increasing Cotton Yields

The Madras Government have sanctioned a scheme for the institution of competition among the cultivators of this State for increasing both the yield per unit area and total production of cotton.

Three prizes for irrigated cambodia varieties and four for dry unirrigated cotton will be given annually.

The contest will be open to the farmers of the districts growing irrigated cambodia, namely, Cambodia 2 Cambodia 3 and Cambodia 4 and unirrigated dry cotton cambodia, Karunganni 5, Karunganni 2 and unirrigated Westerns. The contest will be restricted to those raising at least 5 acres of cambodia cotton or 20 acres of other cotton.

The best farmer for each type of cotton as recommended by a Committee consisting of one member of the local Cotton Committee, the Deputy Director of Agriculture, or the District Agricultural Officers of the respective districts, will be awarded a prize in cash of Rs. 300 for each variety of irrigated cambodia cotton and Rs. 200 for each variety of unirrigated dry cotton grown by them.

help the backward areas like India. Unless we in India put forth our best efforts and lift ourselves up in educating our people, we will not be able to reap the full benefit of our membership of the UNESCO which not only deals with the literacy problem, but also in all social problems affecting the health, agriculture, food and economic conditions of all its member countries.

Having attained political freedom our attention must now be directed towards the attainment of freedom from ignorance, freedom from want. The first is the only way to achieve the second. The State has passed through a very critical period of food shortage. Our requirements have been met to some extent though not fully because we are still in 6 oz. of rice rations. Unless our people are educated to produce more, the problem will remain for ever unsolved. We cannot and should not depend on outside sources alone for our existence. How can any Government make a success of their Grow More Food Campaign and intensive cultivation schemes unless the producers are educated to use improved methods and they are made to realise that they owe it to their neighbours to produce the maximum and part with the surplus grains for the common good and eschew black-marketing as an anti-social act.

According to Sri A. Padmanabha Reddi, Deputy Director of Public Instruction:

"In Madras, there were 43 million illiterates and of them 18.5 millions came within the age-group of 12 to 45. It was the aim of the Ministry to make at least half that number literate within the course of the next five years, which meant that at least 20 lakhs of people would have to be made literate every year. It was a stupendous task. They had trained about 1,485 teachers and made nearly 11,000 persons literate."

"Boosting The Child"

By SRI T. P. SANTHANAKRISHNA NAIDU, Deputy Director of Public Instruction

In spite of all the books we read and appreciate and all the talk we hear and accept about New Education about the harmonious development of the child and about the education of the Whole Man, some of us parents do still wish that our children should be what Goldsmith said of the village master, that

"The village all declar'd how much he knew" and

"That one small head could carry all he knew."

So we try various means, fair and sometimes not quite so fair, to boost our children for being put into as high a class or form at school as our resourcefulness can secure for them.

Of the many methods of this boosting the most common is what is called "Private Study". This may consist of one of three ways. The first is the coaching of the child at home from the beginning by a private coach for a year or two to make the child appear fit for the lessons of the fifth or sixth year at school; the second is the withdrawing of the child after the first year or two at the primary or elementary school and then coaching him in a similar way and admitting him in a class three or four years above in a secondary school; the third is that of coaching the child during the annual school vacation and getting him admitted in a different school in a class a year or two above, suppressing the fact of the child's previous school study and declaring the previous history as 'Private Study'.

'Private Study'

In the good old days when the ideal was still the small head carrying a great deal of learning, 'double promotions' used to be given to bright and smart little children. But this is not usually done nowadays and, besides, not all the children whom their parents want to boost are equally bright. So the 'Private Study' method has now come into vogue; and with the large number of new secondary schools which have been opened in recent years without either an adequate number of feeder schools or enough children in the higher standards of feeder schools, it is often 'Private Study' boosting which is expected to procure sufficient strength for the lower forms of the new secondary schools.

In the larger cities where there are Convent schools and other Anglo-Indian schools, another method is followed. The children are sent to these schools for two or three years and, as the standard of attainment of the pupils in these schools is fairly high except in the regional language, the children are then admitted in one of the lower forms of the ordinary secondary school. The previous school history of the child is here varied as 'Convent school and Private Study', especially when the child has to be admitted in a class higher than the one declared by the educational rules as equivalent to the respective Convent school standard. For this admission the special power of the inspecting officer is invoked and it is often readily exercised, the question being considered only from the viewpoint of attainments in the admission tests and not from the more

general one of the requirements of a normal educational development of the child.

Low standard of Regional Language

But there are one or two snags in the above procedure. The first snag is of course the low standard of the regional language in Convent and Anglo-Indian schools. To get over this, exemption can always be applied for and most often be obtained, though it will not be so in future as the Universities in the State have decided not to recognise such exemptions for admission to University courses of study. The second snag is that of the medium of instruction, for the Convent and Anglo-Indian schools use English and ordinary secondary schools use the regional language. But in cities with multilingual population there are always sections which teach through the medium of English in large schools, and a keen parent can make out a good case for his child to be admitted in the English section. Thus does the enterprising parent overcome the snags.

A less widely known short cut, in this case for a direct entrance to the University, is the appearance as a private candidate for the Matriculation examination of certain universities which admit such candidates for the examination. The universities do of course prescribe a minimum age, but age is after all what one feels, and another certifies, "to the best of his knowledge and belief."

Promotion as 'Special Case'

There is another class of parents whose aspirations on behalf of their children is more modest. They only want that their child who has not been promoted to the higher form after the annual examination at the end of the school year should be promoted as a special case. From what this parent tells one, it would seem that this child is normally a very bright child and that only a conspiracy of circumstances, usually sickness at the time of the examination, has led to his failure in the examination. It would also

Sri K. Madhava Menon, Minister for Education, and Mrs. Madhava Menon join in the mass spinning programme on Gandhi Jayanti



appear that if promotion is not given, it would break the heart of the poor child. Whatever name the psychologists may give to the mental attitude behind such representations, it is certainly a form of self-delusion, even if there be some truth in the statements. The parent's and the child's difficulty is due to the over-valuation of the status of being in a higher class and of the disappointment of failure in a school examination.

But why do parents take to these various short cuts?

The sentimental reason of seeing a "small head," and of course a small body too, carry much learning is coupled with the practical reason of economy of time and money. To try to defeat time, baulk payment and steal a march over a neighbour is the combined reaction of primitive human instinct and modern competitive civilisation. The end is gained, but often the parent little realises the huge price the child has to pay, perhaps throughout life; or even if the parent has some idea of the price, he is inclined to belittle it.

Child at Disadvantage

It is not for the lessons alone and for earning marks and passing examinations that the child is sent to school; but even from the viewpoint of examinations, the boosted child is at the disadvantage and few parents realise it. The "private study" child may often be well-up in the 3 R's, but his general knowledge is usually poor. Admission tests do not in most of the schools include general knowledge and the private coach knows it. The result is that the poor general knowledge of the child goes unnoticed, until the day when the answers of candidates at a public examination bring to light those howlers on the exposure of which the reporting examiners sometimes reveal. The handicap is one which affects not only the child's examination results but also will probably persist throughout life. It may even make a child reserved in society in later years.

A reference has already been made to the disadvantage in respect of the regional language in the case of children coming into the ordinary secondary schools from Convent and Anglo-Indian schools. In the days of the British raj, the disadvantage may not have been felt; indeed, there were times when ignorance of the mother tongue, suggesting by implication a high proficiency in English, was considered

At Gannavaram, Krishna district, the Inspector-General of Police, Madras, distributed prizes to the villagers for good work in connection with the apprehension of anti-social elements.



a matter of pride, but in the Indian Republic of today ignorance of the regional language will definitely be a disadvantage. Children who begin with this handicap may in later life tend to withdraw from the general mass of society and become reserved and exclusive, but without that advantage which in the past the English prodigy enjoyed by way of State patronage and social standing.

Social Maladjustment

But the greatest disadvantage of all from which the boosted child suffers is the maladjustment with the rest of the class in age and physical growth and its consequent social reactions. Being too small for the class, the other boys call him a "kid" and ignore him from all their spontaneous activities, whether it be games or mischief, lawful or unlawful. Naturally he cannot join those of his own age because they are in a lower class or form. He thus becomes an outcaste from the miniature society of the school and may perhaps often develop unhealthy and anti-social complexes, one of which may be an inferiority complex. He tends to seek the protection of the teacher and becomes thereby an object of derision to others, earning the name of a tale-bearer.

But what most affects him in life is the lack of training in self-reliance which this protection means, the self-reliance which is so essential in later life. If he has persons to boost him all through life, he may get on somehow, perhaps even prosperously, but certainly not always happily. He may very probably become what corresponds to a fifth-columnist in his contemporary adult life or a puppet in whatever post he is put in. Throughout his school life such a child generally misses participation in games and the bigger activities of the school, except in those rare instances where by some compensatory quality like the gift of music he manages to obtain some status in school society.

Parents who boost their children into higher grades are thus doing them what is far from being a good thing, however good their intentions may be. Even the economy of money and time of a few years' schooling can never compensate for the lifelong handicap the child will suffer. In the case of a child who failed in one school and whose parent, suppressing the failure, admits the child in another school in a class or form to which he failed to be promoted, the child is denied the opportunity of facing a failure. Life is not always smooth and does not run according to the patterns of one's own desire; and the child who learns to face disappointments early in his career is better equipped than the child who by the efforts of his parents and by the psychological suggestion which they employ is helped to circumvent the failure.

Wages in Tanneries

A draft notification has been published in the Fort St. George Gazette fixing the minimum rates of wages payable to employees of tanneries and leather manufactories, for the information of all persons likely to be affected thereby.

This draft will be taken up for consideration on or after 1st December 1950 and any representations with respect to that may be addressed to the Secretary to the Government of Madras in the Development Department through the Commissioner of Labour, so as to reach the former before the said date.

Schemes and Investigations Sanctioned

During the month of June 1950, the Government sanctioned the following schemes:—

Krishna District.—(i) Provision of irrigation facilities to a dry block of 1,010 acres in Gollapalem village, Divi Taluk, Krishna District, by extending East Channel No. 14 at an estimated cost of Rs. 1,24,140 for works or Rs. 1,63,335 inclusive of direct and indirect charges. The scheme will result in an additional production of 250 tons of rice.

(ii) Reclamation of Vemavaram tank and the extension of ayacut under the Muniyeru main channel so as to benefit an extent of 113.29 acres in Vemavaram village, Nandigama Taluk, Krishna District. The scheme costs Rs. 30,000 for works or Rs. 39,030 including direct and indirect charges. The additional food production anticipated is 58 tons of rice per annum.

West Godavari.—An estimate for Rs. 2,45,020 for works or Rs. 3,23,000 including direct and indirect charges for the provision of irrigation facilities to a block of 3,021 acres of dry and waste lands in L.B. Cherla Kumara-purugupalem, Muthyalapalem and Perupalem villages in Narasapur Taluk, West Godavari District. The additional annual yield of foodgrains expected as result of the execution of the scheme is estimated at 1,500 tons of rice.

Visakhapatnam District.—An estimate for Rs. 3,50,000 for works or Rs. 4,55,376 inclusive of direct and indirect charges for the construction of an anicut across the Gethani River near Rowtherpalem village limits in Vijayanagar Estate which has been taken over by Government. The scheme will provide better irrigation facilities to the existing of ayacut of 1,068 acres. The additional annual yield of foodgrains expected as a result of the execution of the scheme is estimated at 275 tons of rice.

Guntur.—An estimate for Rs. 52,800 for works or Rs. 68,700 inclusive of direct and indirect charges for carrying out improvements to No. II branch of Kullur North side channel Taluk, Guntur District. An additional area of 36,890 acres is expected to be brought under irrigation and the additional yield of foodgrains is estimated at 54 tons per annum.

Kurnool.—Restoration of Gutapalli tank in Gutapalli village, Dhone Taluk, Kurnool District, at an estimated cost of Rs. 91,000 for works or Rs. 1,19,242 inclusive of direct and indirect charges on the scheme. An area of 150 acres will be benefited by the scheme. The additional yield expected is 112 tons of paddy per annum.

Tanjore.—Provision of irrigation facilities for second-crop cultivation on an extent of 361 acres in Narikudi and four other villages and drainage facilities to an existing ayacut of 3,158 acres in 12 villages served by Bheeman channel. The estimated cost of the scheme is Rs. 66,000 for works or Rs. 85,871 inclusive of direct and indirect charges. The scheme will bring under cultivation an extent of 361 acres under second crop and the anticipated additional foodgrains will be 90 tons of rice.

North Arcot.—An estimate for Rs. 1,50,000 for works or Rs. 1,95,160 inclusive of direct and indirect charges on the provision for the re-opening of 9 out of 12 close vents on the northern portion of Palar Anicut in North Arcot District and to fit up two-feet falling shutters on the crest of the anicut between the two sets of sand vents. The

area that is expected to be brought under irrigation is 3,100 acres. The additional yield is estimated at 1,813 tons of rice.

The Government have also sanctioned the detailed investigation of the following schemes:—

Visakhapatnam.—Detailed investigation of the schemes for (i) construction of an anicut across Rallagadda South, and (ii) construction of a new anicut across Rallagadda North locally known as the Ummigedda in Palakonda Taluk, Visakhapatnam District. By the execution of the Rallagadda South Scheme an additional area of 492.51 acres of new ayacut will be brought under irrigation in addition to the existing ayacut of 66.87 acres under the Royadu tank.

By the execution of the Ummigedda scheme an area of 279 acres of dry and waste lands and 381 acres of existing wet lands will be benefited.

Chittoor.—Detailed investigation of the scheme for the restoration of the Siddalagarthi tank in Vayalpad Taluk, Chittoor District. By the execution of the scheme an area of 100 acres will be brought under cultivation. The anticipated additional production is 50 tons of rice.

During the month of July 1950, the Government sanctioned the following Grow More Food Irrigation Schemes:—

South Arcot District.—An estimate for Rs. 2,10,000 for works or Rs. 2,73,230 inclusive of direct and indirect charges for carrying out improvements of supply to eight tanks from Vadakarandal Anicut in Kallakurichi Taluk, South Arcot District. The area likely to be benefited by the scheme is reported to be 571.64 acres of wet lands and 183.82 acres of dry lands. An additional production of 126 tons of rice per annum is anticipated as a result of the execution of the scheme.

Chingleput District.—An estimate for Rs. 62,000 for works or Rs. 80,666 inclusive of direct and indirect charges on the scheme for the construction of a *calingulah* across Chavali stream in Kalathur village of Ponneri Taluk, Chingleput District, so as to benefit cultivation of an extent of 260 acres which now lies uncultivated out of the total registered ayacut of 922 acres under the Kalathur large tank and supply channel. The additional production is estimated at 130 tons of rice per annum.

Guntur District.—Provision for raising by two feet the full tank level of the Atmakur tank in Painad Taluk, Guntur District, so as to benefit an additional extent of 350 acres at an estimated cost of Rs. 1,54,000 for works or Rs. 2,03,100 inclusive of direct and indirect charges. The annual additional foodgrains that anticipated is 175 tons of rice.

The following two works were sanctioned under the Tank Improvement Scheme:—

Coimbatore.—An estimate for Rs. 21,050 for works or Rs. 27,389 including direct and indirect charges for carrying out repairs and improvements to Kothanganni Tank in Dharmapuram Taluk. The additional area expected to be benefited is 60 acres of dry land. The extra yield anticipated is 30 tons of foodgrains.

Ramanathapuram.—The work of construction of head sluice to Kavour supply channel in Sivaganga Taluk at a

cost of Rs. 38,200 for works or Rs. 49,701 including direct and indirect charges. The area expected to be benefited is 545 acres and the additional food production expected is 272 tons.

During the month of August 1950, the Government sanctioned the following Grow More Food Irrigation Schemes:—

Kurnool District.—An estimate for Rs. 65,000 for works or Rs. 84,570 inclusive of direct and indirect charges, on the scheme for restoration of Nalla Reddy tank in Kothakota village in Cumbum Taluk of Kurnool District. The area likely to be benefited by the scheme is 66 acres. An additional production of 44 tons of paddy is expected as a result of the execution of the scheme.

South Kanara.—Construction of an anicut across Mulki River at Phalimar in Mangalore Taluk, South Kanara District, at an estimated cost of Rs. 1,95,000 for works or Rs. 2,54,230 inclusive of direct and indirect charges on the scheme. The area that will be benefited by the scheme is 720 acres. An additional production of 178 tons of rice per annum is expected as a result of the execution of the scheme.

The Palayakottai Cattle Farm

(Continued from page 23)

Markets and Exhibitions

There are two important Cattle Fairs in this District, one at Kaanapuram and the other at Tiruppur, which come off every April and May. These are the two principal marketing places for disposing the stock that are handled and trained every year. In addition to that, the Government and local bodies patronise this Farm, by purchasing the stock for this requirements, at the Farm itself. Every year, the surplus stock and the culled stock are sold to the petty breeders in the tract in the Farm.

The animals of my Farm had been exhibited at the All India Cattle Shows, at Delhi, Bangalore, and other places and have earned high praise in all the shows year after year, winning gold medals and breed championship cups. My Farm animals had already earned a name and if they compete further, there will be no chance for other petty breeders. Hence, for the last five years, my farm animals are not competing for the shows, thus allowing others to win prizes.

This Farm attracts Animal Husbandry experts, agriculturists and other important visitors from all over the world. Moreover, students of the Agricultural Colleges of Coimbatore and Bapatla, students of the Imperial Dairy Research Institute, Bangalore, and students of the Advance Animal Husbandry course of the Indian Veterinary Research Institute, Izatnagar (U.P.) and from various other institutions visit this Farm every year for practical study of animal husbandry problems.

A visitors book maintained at this Farm since 1903 onwards, recording the opinions of important visitors, speaks volumes for the value of my Farm. Pedigree records, such as breeding, milk yield, fat percentage of milk, etc., are all being maintained at this Farm, since the inception of the Kangayam Cattle Improvement Scheme, from 1942.

Agricultural Activities

Apart from breeding of cattle, agriculture on a wide scale is also being carried on here. About 120 pairs of work cattle are being maintained to carry on agricultural operations. The main commercial crops are cotton, tobacco and chillies, raised under well irrigation. The food crops are cumbu, cholam, ragi and paddy, etc. Cholam and cumbu are specially raised for fodder, to be fed green to the animals.

Perennial grasses such as guinea grass, elephant grass, napier grass, buffalo grass, lucerne, bursen, etc., are also grown under irrigated conditions. This Farm and the whole of the Kangayam tract afford very good examples of mixed farming. Such mixed farming is essential for the improvement of livestock and this technique should be on the increase.

Prices of Groundnut Oil

The attention of Government has been drawn to the continuous and steep rise in the prices of groundnut and groundnut oil during the past few months. There is reason to believe that the recent rise in prices of kernel is artificial and that it is largely due to speculation. It is common knowledge that groundnut cake is vitally needed at present for increasing food production in this State. Unless the oil crushing industry is able to procure groundnut at an economic price, the industry cannot cope with the present demand for groundnut oil cake. The price of oil will also go up. The Government are therefore determined to see that speculation in groundnut and groundnut oil is put down. They appeal to all persons concerned to co-operate with the Government in putting down speculation.

List of Donors to the Manimuthar Project

Following is the list of donors who contributed to the Manimuthar Project Loan in Tirunelveli District:

Name of the donor	Amount Rs.	Name of the donor	Amount Rs.
TIRUNELVELI TALUK			
1 Sankar Mills, Tirunelveli	2,20,000	48 Subbaiah Pillai, Mani Vilas, Tirunelveli ..	10,000
2 Joshi	50,000	49 P. S. M. Sudalayadumperumal Pillai ..	10,000
3 Manakavalam Pillai, Tirunelveli	50,000	50 O. V. Ganapathiya Pillai, Tachanallur ..	10,000
4 District Board, Tirunelveli	2,00,000	51 P. Venkatuchalam Pillai	10,000
5 Co-operative Central Bank	1,50,000	52 Muhammad Kalingu Meeran Sahib	10,000
6 Lion Automobiles	50,000	53 P. M. P. S. Periana Nadar, Udayarpatti ..	10,000
7 South India Bank, Limited	5,00,000	54 Ramasundaram Chettiar, Tirunelveli Junction ..	10,000
8 Chandra Vilas	50,000	55 Adam Rowther, Melapalayam	10,000
9 Patel	20,000	56 S. Kaadasami Rajeswari Mill	10,000
10 The Tirunelveli Diocesan Trust Association ..	25,000	AMBASAMUDRAM TALUK	
11 K. P. M. Subramania Pillai	20,000	1 R. S. A. Sankara Ayyar, Kallidaikurichi ..	50,000
12 Sultan Pillai and Sons	20,000	2 S. N. N. Sankaralinga Ayyar, Kallidaikurichi ..	50,000
13 Mathusami Reddiar	1,00,000	3 S. R. Subramania Pillai, Melaseval	50,000
14 Vembu Ayyar	1,50,000	4 Sri Srinivasan Brothers, Melaseval	20,000
15 M. D. T. Kumaraswami Mudaliar	40,000	5 Harvey Mills Employees Co-operative Society, Vikramasinghapuram	75,000
16 Sankaranarayana Pillaiyan	40,000	6 Kalathu Iyer, Karakurichi	15,000
17 P. S. Nallayappa Pillaiyan	12,000	7 V. G. Sundaram, Viravanallur	51,000
18 S. Gopalaramasubramanier	1,51,000	8 C. V. R. Krishna Ayyar, Kallidaikurichi ..	25,000
19 T. V. Sundaram Iyengar and Sons	1,00,000	9 M. S. M. Sheikh Abdul Kadir, Pottalpur ..	25,000
20 Tirunelveli Municipality	1,10,000	10 S. S. Tirupathi Raja, Ambasamudram ..	10,000
21 Gnanamaniammal Choultry	50,000	11 A. R. Rajangam Iyer, Ambasamudram ..	20,000
22 T. M. Shamsuddin Rowther	50,000	12 P. Subbiah Moopamar	30,000
23 K. A. M. Syed Muhammad and Sons, Melapalayam	20,000	13 Rajamma Ayyangar	10,000
24 B. N. Abdul Kadir, Melapalayam	12,500	14 P. C. Arunachalam Chettiar	12,000
25 K. A. M. Muhammad Ali and Company, Melapalayam	10,000	15 Sankarasubramania Iyer, Ambur	10,000
26 S. S. Muhammad Hanifa and Brothers, Melapalayam	10,000	16 Sri Sankaralinga Ayyar	10,000
27 A. S. M. Mohideen Pillai, Melapalayam ..	11,300	17 Janab M. Sheikh Mohideen Maracayer, Melaseval	10,000
28 S. O. Meethin Pillai (Rahim and Company), Melapalayam	10,000	18 Sri S. T. K. Nallayappa Pillai, Viravanallur	20,000
29 T. S. M. O. Muhammad Othuman Sahib, Melapalayam	50,000	19 Pothikasala Thevar, Kattalaimalai Estate ..	25,000
30 L. K. S. Muhammad Meera Mohideen	36,000	20 R. M. Gopalakrishna Pillai, Sattankulam ..	2,000
31 L. K. S. Kader Meera, Melapalayam	25,000	21 Ramakrishna Beedi, Mukkudal	10,000
32 M. N. M. A. Calendar Lebbari Brothers, Melapalayam	25,000	22 D. S. Anthimoolam, Mukkudal	40,000
33 P. M. Syed Ahmed, Melapalayam	10,000	23 Proprietor, T. R. Sokkhalal Beedi Factory, Mukkudal	50,000
34 S. A. Sahul Hameed, Melapalayam	20,000	24 Mela Pannai, Alwarkurichi	10,000
35 P. S. Sayed Ibrahim, Melapalayam	50,000	25 Inamdar of Pottalapudur	10,000
36 A. M. Abdolla Taraganar and Brothers, Melapalayam	50,000	26 Rajalinga Raja, Ambasamudram	10,000
37 M. A. S. Ahmad Moideen, Melapalayam ..	37,500	27 Velayudha Mudaliar, Kallidaikurichi	10,000
38 P. M. Hydross, Melapalayam	25,000	28 A. V. R. M. Kallidaikurichi	40,000
39 O. M. Ahmad, Melapalayam	25,000	29 Arumuga Mudaliar, Ambasamudram	30,000
40 M. V. M. S. Sahul Hameed, Melapalayam ..	12,500	30 Thiruvaduthurai Mutt	2,00,000
41 S. S. M. Muhammad Ali, Melapalayam	12,500	31 Sri R. M. S. Ramanatha Mudaliar, Kallidaikurichi ..	10,000
42 S. N. S. Md. Moideen, Melapalayam	12,500	32 Velayudha Mudaliar, Karthikeyan Mills ..	10,000
43 Somasundaram Pillai, Dhanam Rice Mill ..	10,000	33 Ramanatha Mudaliar, Ambasamudram ..	10,000
44 Narayana Pillai, Udayarpatti	10,000	34 V. S. Hariharan Iyer, Karakurichi	10,000
45 Kanthimathinatha Pillai, Tachanallur	10,000	35 A. S. Narayanaswami Ayyar, Ariyanayagipuram	16,500
46 Ramanuja Naidu, Tachanallur	10,000	36 Janab I. S. Muhammed Ibrahim, Pottalpur	10,000
47 L. K. M. Kailasam Pillai, Tachanallur ..	10,000	37 S. G. R. Subramonia Iyer, Melaseval	50,000

IRRIGATION

38

MADRAS INFORMATION

Name of the donor	Amount RS.
NANGUNERI TALUK	
1 N. P. L. Subramania Talaivar, Tirukaran-gudi ..	40,000
2 N. Krishna Pillai, Nanguneri ..	40,000
3 Lakshmana Iyer, Pannayar, Gopalasamu-dram ..	40,000
4 Vanamamalai Mutt, Nanguneri ..	20,000
5 Tiruoor Mutt, Tirukarangudi ..	20,000
6 V. R. S. Viswanatha Iyer, Velliyoer ..	10,000
7 M. G. Sanker, Munanjipatti ..	10,000
8 I. P. Pitchaya Pillai, Sooranguudi ..	10,000
9 Kumaraswamy Reddiar, Koondankulam ..	10,000

List of pattadars who have paid Rs. 10,000 and more in bond value by paying 10 per cent.

1 Sivasubramania Thevar, Sankarankulam, Vijayanarayanam ..	10,000
2 P. N. Marthandam, Vijayanarayanam ..	10,000

TIRUCHENDUR TALUK	
1 G. Kalyanasundara Nadar, Kachanavillai ..	2,00,000
2 Janab A. K. M. Abdul Kader Sahib, Kayal-pattinam ..	1,40,000
3 Shanmugasundara Nadar, Nazareth ..	1,00,000
4 Sivasubramania Nadar, Koolapuli ..	70,000
5 R. M. Veerasooraperumal Nadar, Sinnanadar-kudiruppu ..	60,000
6 V. P. Peria Nadar, Kumarasamiapuram ..	50,000
7 N. Ramachandra Nadar, Moolakarai ..	50,000
8 T. S. Venkatachala Ayyengar, Thenthiru-perai ..	40,000
9 R. Mahadeva Iyer, Athoor ..	40,000
10 Shanmugavelayutham Pillai, Serakulam ..	40,000
11 Thangavel Nadar, Tiruchendur ..	40,000
12 S. A. Ponniah Nadar, Vellalanvillai ..	30,000
13 M. S. Subramania Pillai, Udangudi ..	20,000
14 S. Guruswami Nadar, Sinnanadarkudiruppu ..	20,000
15 N. Vayasaaperumal Nadar, Semmarikulam ..	20,000
16 M. A. Karuthiah Nadar, Alwarthirunagari ..	20,000
17 John Costa, Manapad ..	20,000
18 Antony Sebastian, Fernandez, Alandalai ..	20,000
19 Isao Jeyaraj, Semmarikulam ..	20,000
20 A. P. Sargunam Nadar, Vellalanvillai ..	12,000
21 Rajendran, Udangudi ..	12,000
22 D. Arputham Nadar, Mela Tiruchendur ..	12,000
23 V. Sami Nadar, Pichivillai ..	12,000
24 S. Subramania Pillai, Udangudi ..	10,000
25 Janab W. P. K. Meera Sahib, Kulasekara-pattinam ..	10,000
26 A. Dharmar Nadar, Sinnanadarkudiruppu ..	10,000
27 S. S. Odakaramuthu Nadar, Sinnanadar-kudiruppu ..	10,000
28 Kandasamy Nadar, Kandasamiyapuram ..	10,000
29 M. S. Pandarasivan Pillai, Kulasekara-pattinam ..	10,000
30 K. P. Paramasivan, Pillai, Kulasekara-pattinam ..	10,000
31 K. P. P. Rajiah Nadar, Nazareth ..	10,000
32 Porian Venkatachari, President, Opadi Sangam, Alwarthirunagari ..	10,000

Name of the donor	Amount RS.
SRIVAICKUNTAM TALUK	
1 Janab I. Mohideen Aliar, Siruthondanallur ..	10,000
2 T. Kanniperumal Karayalar Pillai, Mangala-kurichi ..	10,000
3 R. Venkatachari, B.A., B.L., Advocate, Srivaikuntam ..	11,300
4 T. Ponniah Pillai, Velur Cusba, for the villagers of Velur Cusba ..	25,280
5 A. Sankaralinga Kavirayar, Velur Cusba, for the villagers of Velur Cusba and Velur Pudukudi ..	20,000
6 S. M. Velayutham Pillai, Pannayar, Sera-kulam ..	13,600
7 Janab V. A. Syed Abdul Karim Maraikar, Kaliavoor, for the villagers of Kaliavoor ..	19,600
8 S. P. Chidambaram, Velavallan, for the villa-gers of Velavallan ..	10,000
9 Vinayagamoorthisa Pillai, Perungulam, for the villagers of Perungulam ..	10,000
10 R. Arunachala Nadar, Umarimanagar, ham-let of Korkai, for the villagers of Umarimanagar ..	50,000
11 V. K. Subramania Iyer, Arumugamangalam, for the villagers of Arumugamangalam ..	40,000
12 K. N. Thiruparkadalnatha Pillai, Korkai, for the villagers of Korkai ..	45,000
13 A. Paul Chellaiiah Nadar, Eral, for the villagers of Eral ..	10,000
14 M. Asirvatha Nadar, Sawyerpuram, for the villagers of Sawyerpuram ..	40,000
15 M. V. Pitchandiah Pillai, Eral ..	10,000
16 S. V. P. Sudalaimani Nadar, Sawyerpuram ..	15,000
17 Janab K. S. Abu Haniffa Sahib, Velavallam, for the villagers of Velavallam ..	14,600
18 D. Thiruvandadhan, Alwarthirunagari ..	20,000

TUTICORIN TALUK	
1 Tirunelveli District Co-operative Central Stores, Limited, Tuticorin ..	50,000
2 Co-operative Bank, Kilur, Tuticorin ..	1,00,000
3 V. N. P. R. Ayyaswamy Nadar, Tuticorin ..	20,000
4 P. S. T. Sankaralinga Nadar and Sons, Tuti-corin ..	10,000
5 K. S. S. Sankaralinga Nadar, Tuticorin ..	10,000
6 M. M. S. M. S. Paulraj Nadar, Tuticorin ..	10,000
7 P. P. M. T. Ponnuswamy Nadar, Tuticorin ..	10,000
8 A. R. S. Thirumaninatha Nadar, Tuticorin ..	33,300
9 V. S. Annamalai Nadar, Tuticorin ..	10,000
10 L. A. M. Periakaruppa Nadar, Tuticorin ..	10,000
11 K. S. S. Periakaruppa Nadar, Tuticorin ..	15,000
12 V. S. Shanmugam Pillai, Tuticorin ..	10,000
13 K. Palanisamy Nadar, Tuticorin ..	10,000
14 S. KS. Rajamani Nadar, Tuticorin ..	10,000
15 R. M. Seetharama Naidu, Tuticorin ..	10,000
16 K. S. P. S. Nadarajan and Company, Tuti-corin ..	15,000
17 V. Shanmugam Pillai, Tuticorin ..	10,000
18 Soosai Villavarayar, Tuticorin ..	10,000
19 S. L. Sankarakumar Nadar, Tuticorin ..	10,000
20 S. Muthuvijaya Nadar, Tuticorin ..	10,000
21 Sundaravel Salt Company, Tuticorin ..	50,000

39

MADRAS INFORMATION

The Nellore Thermal Scheme

The inauguration of the Nellore Thermal Scheme marks a further step onward in the electrical development of Madras State. The new Station will afford all the power supply that Nellore District will need for its industrial, agricultural and domestic purposes for the next decade. In due course it will be linked with the Machkund Hydro-Electric System in the north, the Madras Thermal System in the south and the Ceded Districts System in the west and so will get integrated into the State Electricity Grid.

The idea of establishing a Central Thermal Station in the Nellore District arose as early as 1945 when there was a prospect of a big size rayon and chemical industry being located in the Sulturpet area. A survey conducted at the time showed also the existence of other important loads like the mica mines in the Gudur Rapur area, the ceramic industry at Gudur and the urban and rural loads at Nellore, Gudur, Kavali, Venkatagiri, etc. A scheme for the installation of a Thermal Station at Nayudupet was submitted to Government in January 1946 and it was revised in September 1946 to utilise two 2,500 K.W. transportable sets which had, in the meanwhile, been acquired by the Government from the Central Government reserve pool.

Older Scheme Recast

At that stage, the sponsors of the rayon and chemical factory dropped their scheme and the power scheme had in consequence to be recast again in view of the altered situation. It was found that the other loads in the area would by themselves justify a local thermal scheme and revised proposals utilising the two transportable sets in a powerhouse located at Nellore was prepared and submitted to Government in June 1947. It was sanctioned in February. The location of the power-house at Nellore presented some difficulty in view of the railway siding facilities not being available in the neighbourhood of the town. Eventually the present location near Padugupadu village was decided and work was commenced in March 1949.

Power Generation Inaugurated

The scheme is estimated to cost Rs. 59.71 lakhs initially rising to Rs. 101 lakhs in ten years. This is inclusive of the cost of diversion of the two 1,500 K.W. sets from Vijayavada. The load demand expected is around 2,000 K.W. in the first year rising to 6,206 K.W. in ten years.

The transportable power sets were erected through the agency of the Central Electricity Commission. Contract for switchgear at the Power House and at the Sub-stations were let to Messrs. Easun Engineering Co. The erection of the Powerhouse building, transformers and all civil works as well as the construction of the transmission line are being handled departmentally.

The works contemplated under the first stage were begun in March 1949. The powerhouse installation is now practically complete but not the transmission lines and sub-stations. Power generation was inaugurated on October 2, Gandhi Jayanti Day, and initial supply will be to the Nellore licensee for distribution to Nellore Town and Bitragunta. The rest of the works are expected to be completed by early 1951.

Name of the donor.

Amount
RS.

TUTICORIN TALUK—cont.	
22 AP. C. Virabahu Pillai, Tuticorin ..	85,000
23 V. V. Dhanushkodi Nadar, Tuticorin ..	20,000
24 Swadeshi Steamship Company, Tuticorin ..	1,00,000
25 I. S. and C. Machado, Tuticorin ..	20,000
26 G. Ramachandran Pillai, Tuticorin ..	25,000
27 S. Ponnuswamy Nadar, Tuticorin ..	10,000
28 O. P. N. Arunachala Nadar, Tuticorin ..	10,000
29 ARAS. Arumugasamy Nadar, Tuticorin ..	10,000
30 M. V. Shanmugavel Nadar Sons, Tuticorin ..	15,000
31 A. M. M. Sinnamani Nadar Firm, Tuticorin ..	15,000
32 G. Ayyah Ayyar, Tuticorin ..	10,000
33 T. M. Arunachala Nadar Firm, Tuticorin ..	10,000
34 Tuticorin Port and Port Trust, Tuticorin ..	1,00,000
35 T. Kanagasabapathy Pillai, Tuticorin ..	10,000
36 S. N. Chinnakannu Pillai, Tuticorin ..	30,000
37 T. S. Peria Nadar and Brothers, Tuticorin ..	10,000

SANKARANKOIL TALUK

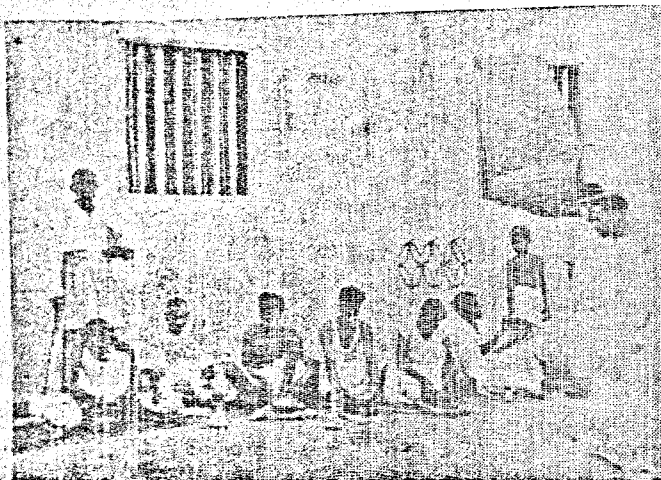
1 V. S. Subba Raja, Tuticorin ..	20,000
2 Ramachandra Thevar, Tuticorin ..	20,000
3 Andal Naicker, Tuticorin ..	20,000
4 M. Palanichamy Nadar, Tuticorin ..	20,000
5 N. K. S. Arumugam Chettiar, Tuticorin ..	20,000
6 Arunachalam Chettiar ..	20,000
7 Janab Syed Asan Kader ..	20,000
8 K. C. A. A. Ramiah Nadar ..	20,000
9 S. N. Sivagurunathan ..	20,000
10 S. R. Subbiah Pillai ..	20,000
11 K. A. Ayyalusamy Naicker ..	20,000
12 M. Subramania Chettiar ..	20,000
13 Co-operative Stores, Sankarankoil ..	10,000

TENKASI TALUK

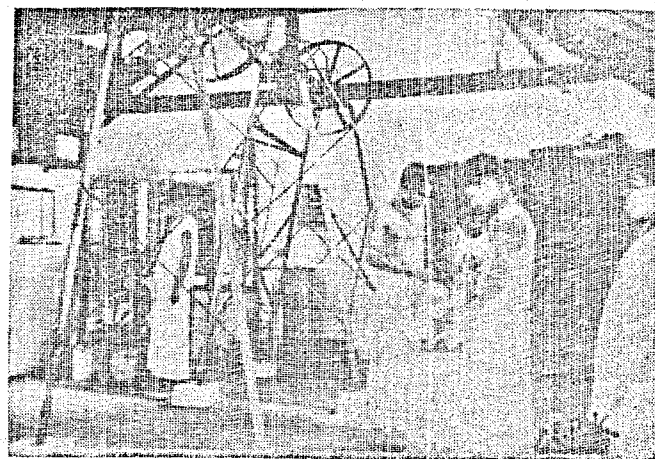
1 Mercantile Corporation ..	24,000
2 N. Sankarappa Naidu ..	20,000
3 I. S. Arumugam Chettiar, Nanji ..	12,000
4 Karuppasami Mudaliar ..	12,000
5 Chintamani Chettiar, Kadayannallur ..	20,000
6 N. Sankarayyar, Ilathur ..	10,000

KOILPATTI TALUK

1 A. Sankarasrinivasan, Koilpatti ..	40,000
2 N. S. S. Venkatachala Chettiar, Koilapatti ..	30,000
3 K. Ramasami Doss, Koilpatti ..	20,000
4 Ganapathi Pandaram, Koilpatti ..	20,000
5 S. S. T. R. M. Thillaigovindan, Koilpatti ..	20,000
6 S. S. Natarajan, Koilpatti ..	20,000
7 V. V. Perumalsami Naicker, Koilpatti ..	10,000
8 A. Susayappa Naicker, Koilpatti ..	10,000
9 V. S. Ramaswami Iyer, Koilpatti ..	10,000
10 S. N. A. Ginning Factory, Koilpatti ..	10,000
11 Messrs. Meenakshi Match Factory, Koilpatti ..	10,000
12 Messrs. K. Velayutham Chettiar and Sons, Koilpatti ..	10,000
13 S. R. Ramakrishna Iyer, Kalugumalai ..	10,000
14 E. L. S. Thirumani Chettiar, Kalugu-malai ..	10,000
15 Messrs. Kadiria Match Factory, Koilpatti ..	10,000
16 Messrs. P. K. Kalasami Nadar, Koilpatti ..	10,000
17 D. Shenbagamoorthi, Koilpatti ..	10,000
18 Ramiah Konar, Kalugumalai ..	10,000
19 S. Subramania Chettiar, Koilpatti ..	10,000
20 SK. OL. S. PL. Nachiappa Chettiar, Koil-patti ..	10,000



Some of the Quilandy artisans at work on metalware



Small power machines help to increase output greatly

The Artisans of Quilandy

The Quilandy Artisans' Co-operative Society, Limited, situated in Quilandy (Danthalayini R.S.) in Kurumbranad Taluk, Quilandy P.O., Malabar District, is the only society of its kind in Malabar District working on the basis of Cottage Industry. This society was registered and started work in the year 1938. The society is doing useful work by affording facilities to the worker-members for the production of iron and brasswares of artistic beauty, thereby enabling them to earn decent wages. In addition to the articles intended for local use, such as pen-knives, spades, etc., the members manufacture electric lamp-stands, flower vases, ash-trays, bathi-stands, napkin rings, hooks, etc., which were sold in foreign places like Aden and Arabia before the last war. These articles are of fine artistic beauty on brass embroidery work and coconut shells and are much appreciated outside India.

The last war brought about a cessation of exports of the articles manufactured by the society and consequently the society experienced great difficulty in finding favourable markets for the finished articles. The Government have been extending their helping hand to this society from its very inception. In 1939, the society was given by Government a non-recurring subsidy of Rs. 500 and a recurring subsidy of Rs. 10 per mensem for one year for resuscitating and developing the brassware and other artistic industries. The polishing lathe and the drilling machine purchased out of this subsidy could not be made use of for want of either an electric motor or a crude oil engine for running them. The Government again came to the rescue of the society and were pleased to sanction under the Madras State Aid to Industries Act (1922) a non-recurring subsidy of Rs. 3,000 to the society for the purchase and installation of a five horse power crude oil engine. The machine was purchased and installed in September 1943 with the result that the society was able to increase its production, ensuring at the same time better finish

and reduction in the cost of production by correspondingly minimising manual labour and wages.

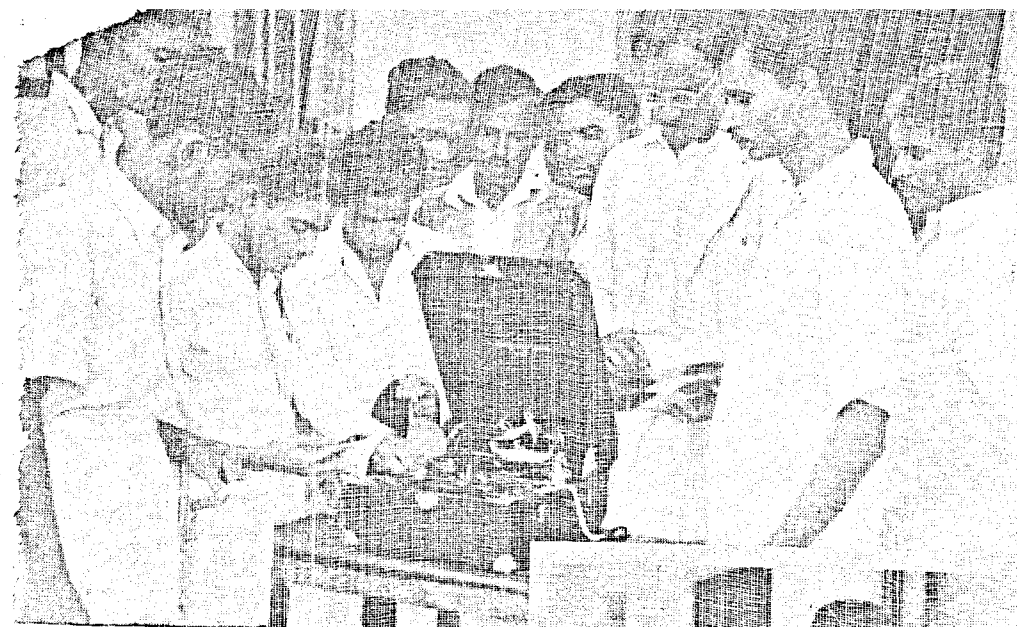
The society has at present 112 members on its rolls of which 40 members are engaged in actual work. Of these five to eight members work at the engine and the rest in their houses as a cottage industry. The paid-up share capital of the society amounts to Rs. 963, the value of production after the installation of the engine till date, i.e., June 1950 Rs. 2,000, while the sales-proceeds amounted to Rs. 1,200 approximately, leaving a stock worth about Rs. 800. After the engine was installed the society took to the manufacture of spoons of different sizes in German silver which find a good market locally.

The Victoria Technical Institute, Madras, and the Madras Provincial Co-operative Marketing Society, Madras, very often help the society in finding a market for the finished goods of the society. The society also takes advantage of the facilities extended by the Registrar of Co-operative Societies to exhibit its finished products in important places like Delhi for popularising its goods. The possibilities of reviving the trade contact with the countries in the Middle East are being explored.

Pensions to Displaced Persons

The Government of India have decided to extend for a further period up to the 31st March 1951, the present arrangements for payment to displaced pensioners of advances of pensions, pending the transfer of those pensions from the Dominion of Pakistan to India and vice versa.

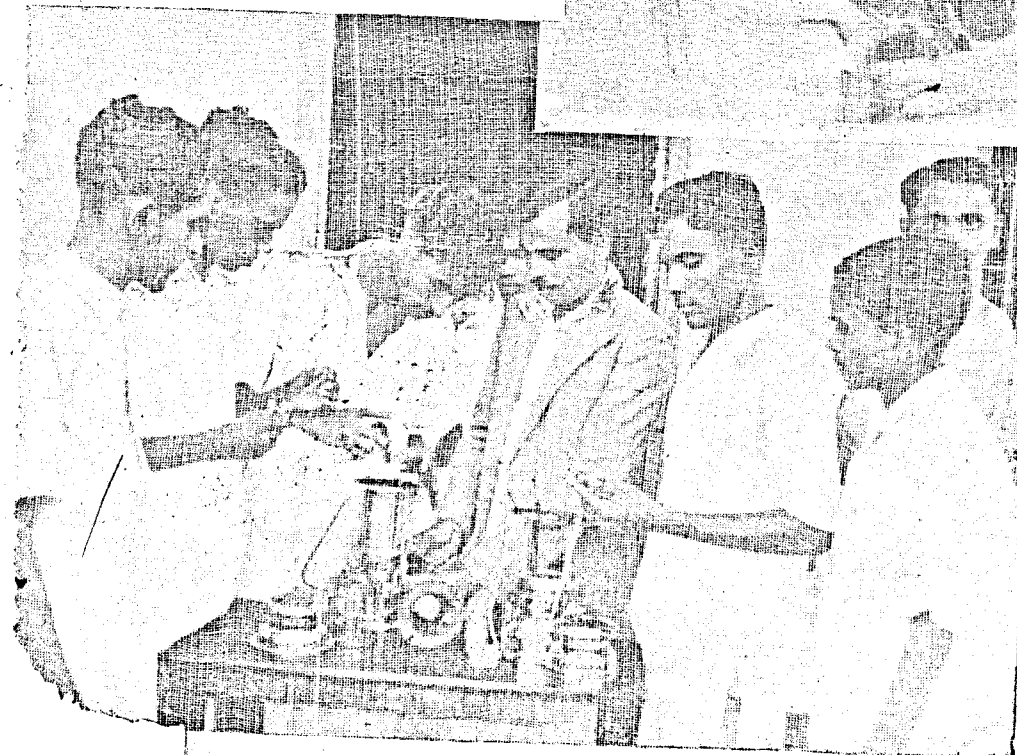
Advances will continue to be admissible during this period to the persons who are already in receipt of such advances.



Top : Trainees receive instruction on the handling and repair of gramophones, an important medium in adult education



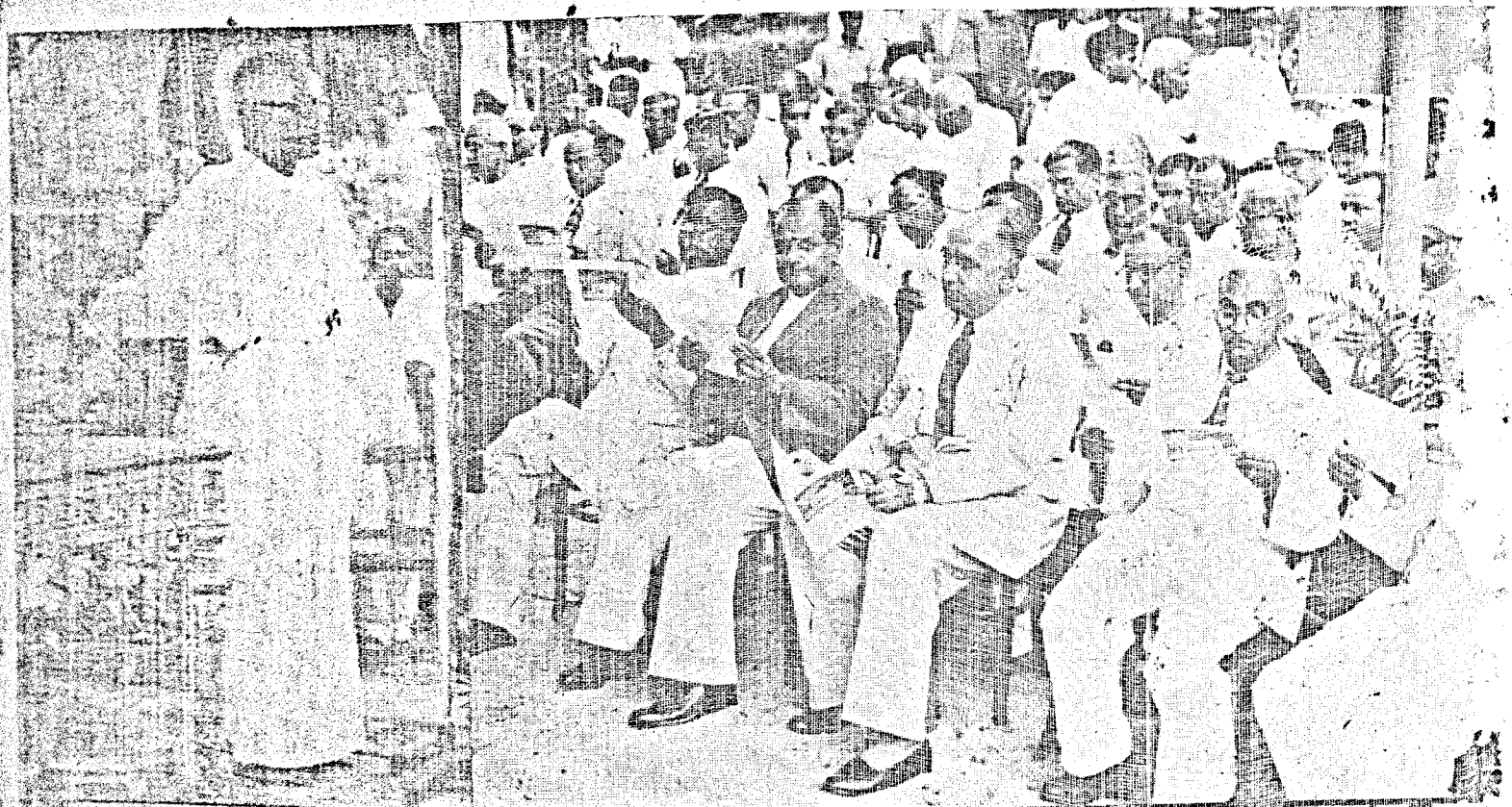
Right : Pinboard machine games can be entertaining and educative



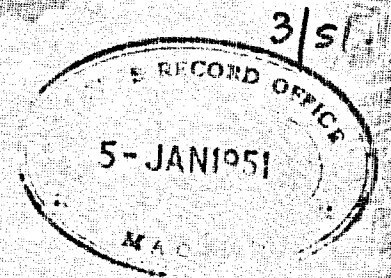
Left : Cleaning and operating petromax lights. Most adults can attend night classes only; hence the need for well-illuminated classrooms

Registered No. M-4767.

THE INSTITUTION OF ENGINEERS, SOUTH INDIA CENTRE



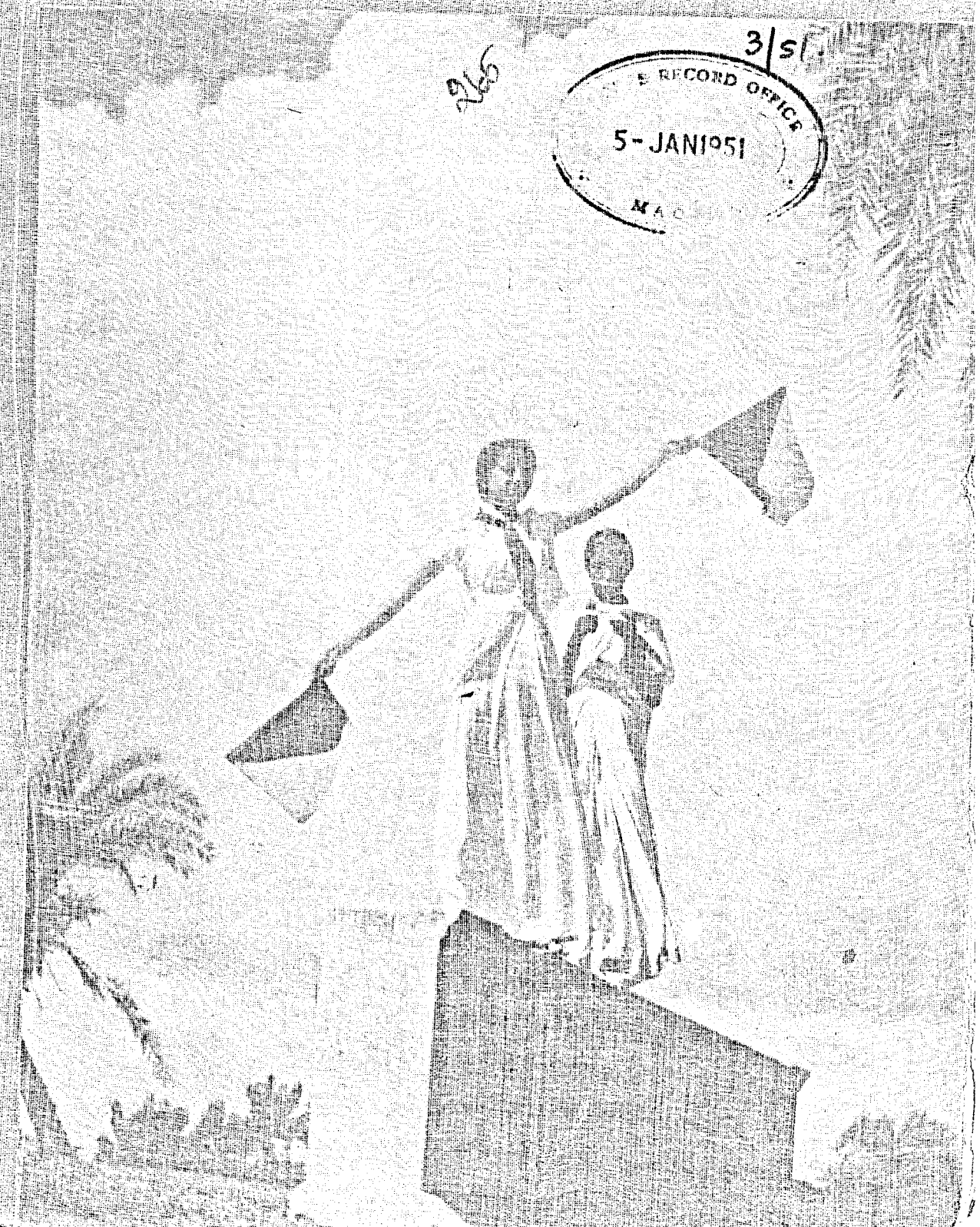
MADRAS INFORMATION



SL. IV. NO. 12

MADRAS
DECEMBER
1950

Price, As. 3



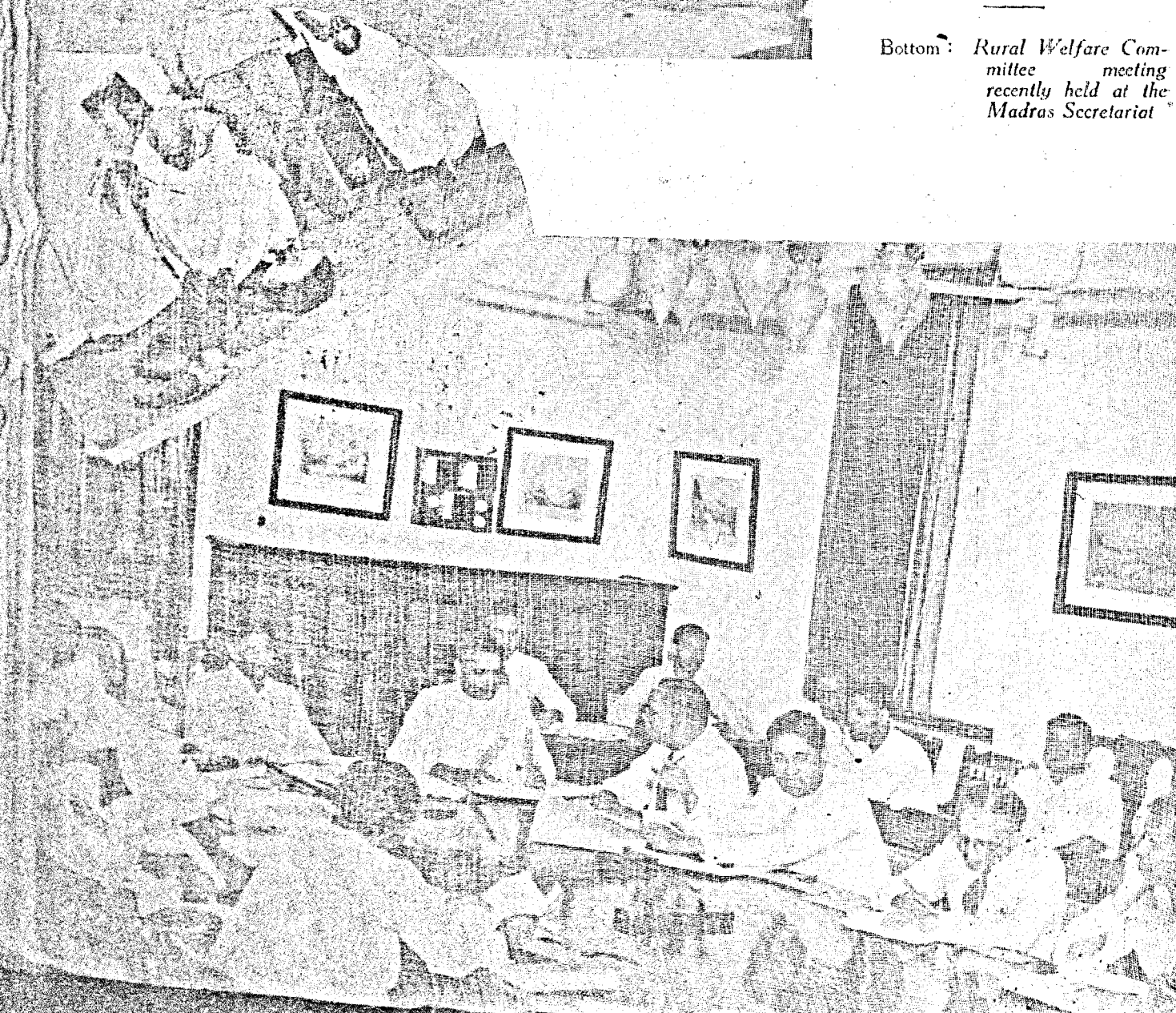


RAJAJI AT TIRUPATI

Top : Hon'ble Sri C. Rajagopalachari opened a Nandavanam at Tirupati

Centre : A close-up of Rajaji engaged in tree-planting

Bottom : Rural Welfare Committee meeting recently held at the Madras Secretariat



Madras Information

Published every month by the Director of Information and Publicity
Fort St. George

5-JAN-1951

3/51

Vol. IV, No. 12

"WE SEEK TO SERVE AND NOT TO COMPETE"

December 1950

CONTENTS

266

PROGRAMMES—

- | | |
|---|---|
| 1. The Coming Census—By Sri P. S. Kumaraswami Raja .. | 3 |
| 2. Publication of Draft Electoral Rolls .. | 5 |

FOOD—

- | | |
|--|----|
| 3. Food Situation in Madras State—By Sri M. A. Kuttalalingam Pillai .. | 8 |
| 4. Food Offences and Punishments Awarded .. | 11 |

PROHIBITION—

- | | |
|---|----|
| 5. Two years of Prohibition—By Sri N. Sanjeeva Reddi .. | 12 |
|---|----|

~~RURAL~~ RECONSTRUCTION—

- | | |
|-----------------------------------|----|
| 6. Palm Gur Industry .. | 14 |
| 7. Development of Malnad Areas .. | 15 |

WOMEN'S WELFARE—

- | | |
|--|----|
| 8. Reclamation of the Unfortunate—By Srimathi P. T. Rajagopal .. | 16 |
|--|----|

FINANCE—

- | | |
|---|----|
| 9. Capital Expenditure of Madras State—By Sri T. A. Varghese, I.C.S. .. | 18 |
|---|----|

FORESTRY—

- | | |
|--|----|
| 10. Bird Watching—By Lieut.-Col. R. W. Burton .. | 21 |
|--|----|

PROFILE—

- | | |
|---------------------------------|----|
| 11. The Spirit that Conquers .. | 23 |
|---------------------------------|----|

HEALTH—

- | | |
|---|----|
| 12. Tuberculosis in South India—By Dr. K. Vasudeva Rao .. | 24 |
|---|----|

LAW AND ORDER—

- | | |
|---|----|
| 13. Corruption among Government Servants .. | 27 |
|---|----|

LABOUR—

- | | |
|---|----|
| 14. The Working Class in National Economy—By Sri H. Sitarama Reddi .. | 28 |
| 15. The Madras Shops and Establishments Act, 1947 .. | 30 |

MANPOWER—

- | | |
|--|----|
| 16. Education and Training for Craftsmanship—By Janab S. A. Qadir .. | 34 |
|--|----|

CULTURE—

- | | |
|---|----|
| 17. Pandava Tradition in Southern India—By Sri V. Srinivasan .. | 37 |
|---|----|

~~FISHERIES~~

- | | |
|------------------------------|----|
| 18. Our Fishery Resources .. | 40 |
|------------------------------|----|

INDUSTRIES—

- | | |
|------------------------------------|----|
| 19. Weavers and the Yarn Market .. | 42 |
|------------------------------------|----|

HOUSING—

- | | |
|----------------------|----|
| 20. Rural Housing .. | 43 |
|----------------------|----|

BOOKS—

- | | |
|-------------------------------|----|
| 21. India in the Year 1949 .. | 45 |
|-------------------------------|----|

EDUCATION—

- | | |
|---|----|
| 22. Silent and Swift Revolution—By Sri G. Ramachandran .. | 46 |
| 23. Planned Leisure for Boys and Girls .. | 47 |

Cover Page : Girl guides at signalling practice.

The Coming Census

By SRI P. S. KUMARASWAMI RAJA, Chief Minister, Madras

I appeal to all persons residing in the State of Madras to co-operate wholeheartedly with the official Census machinery so that the successful completion of the decennial Census due in 1951 may be ensured. This will be our first Census after the attainment of Independence, and this fact is not only a matter of historical importance, but should serve to emphasize the responsibility of the people to co-operate with the Governments of their own choice which are now in power for securing an accurate Census. It is hardly necessary for me to labour the point that a carefully planned and executed periodical Census is of vital importance for the administration of any well-ordered State, particularly under a democratic regime, where all things done, or not done, by the Government, are subject to constant scrutiny by the public and can be ultimately justified convincingly only with reference to impartial data of the kind compiled as a result of Census operations. It is not surprising, therefore, that, even in the most advanced countries, like America, the United Kingdom and the European countries, great importance is attached to the decennial Census operations.

With the growing realization of the fact that well-being is indivisible, the decennial Census is no longer a matter of mere local importance for the country in which it is conducted; and the important International agencies set up by the United Nations Organization are rightly taking steps for comparing notes of the Census operations actually conducted or planned in the various countries and endeavouring to produce data on a comparable basis as between the various countries, so that schemes like those for the development of backward areas and the prevention and cure of serious diseases may be based on data which would automatically ensure not only their soundness and effectiveness but also equitable treatment as between the countries intended to be benefited by them.

Collecting Data for National Planning

The Census aims at an objective collection of the data specified in the Census questionnaire without any bias, and without any motive other than the collection of accurate data on those questions. The facts collected at the Census have nothing to do with proving or disproving any theory; our sole object is to collect data which are of fundamental importance and value from the point of view of demographic and sociological studies and the nation-building activities of the State. Under our Constitution, the delimitation of Constituencies for elections to the Legislatures has to be re-adjusted to the extent necessary, after the completion of each Census. But this is not the reason for undertaking Census operations; nor is it even one of the many vital purposes for which it may be used by the Government. Our ideal is the Welfare State, and that means that the Governments, both in the States and at the Centre, should plan and execute measures for promoting the welfare of all sections of the people to the highest possible level.

The most important use of the data collected at the Census is, therefore, to be found in our National Planning, and if the resources at the disposal of the Government are to be wisely and effectively utilized for the welfare

of the people, the Government must have the necessary basic data on which they can base their plans. Thus Census has, and can have, nothing to do with any Party or Party politics, in fact, it provides impartial data collected without any bias, reference to which would enable each citizen to form his own independent judgment as to the soundness and equity of many of the measures planned and executed by the Government.

Enumerators without Remuneration

It is a matter of legitimate pride to us that the Indian Census has the distinction of being the one conducted at less expense to the State than that of any other country. This has been possible because of the willing co-operation of the people who have considered it a civic duty to serve as enumerators and supervisors, when called upon to do so, without any remuneration whatsoever. This is not only a gratifying feature of our Census, but also a necessary condition for conducting a nation-wide enumeration in a large country like ours. On the average, about one enumerator is required for every 1,000 persons, and one supervisor to guide and test-check the work of every five enumerators. One can easily imagine how much it would cost the Government if they had to remunerate the enumerators and supervisors. The population of this State is now roughly about 545 lakhs and this is only one of the many States in our country. In fact, our large-scale decennial Census operations would have to be given up if there was any question of remunerating our enumerators and supervisors.

I am sure that none of us would want to be responsible for any departure from this unique tradition of the Indian Census or for otherwise creating conditions in which Independent India finds itself unable to conduct the Census operations as well as in the days of the British Rule. In fact, it should be our endeavour, now that we have full powers and are free to do what is best for the country, to improve upon the record of the past in respect of Census operations. The official machinery in connexion with the 1951 Census will thus be on the same modest scale as in the past, the staff being confined to a small supervisory staff at the headquarters of the State and at the Centre, and that required for tabulating the data collected at the Census.

Official and Civic Responsibility

The administrative responsibility for conducting the Census operations in our State vests, as in the past, in our District Collectors, and their subordinate officers, the Superintendent of Census Operations for Madras and Coorg, issuing the necessary instructions for ensuring that what has to be done is done efficiently and on uniform lines. But these officers cannot deliver the goods unless those who are called upon to work as enumerators and supervisors discharge carefully and with enthusiasm the allotted duties, and the other citizens co-operate with the enumerators and supervisors by furnishing accurate answers to the various Census questions. To use an oft-quoted phrase, it takes two persons to make a Census: the enumerator and the citizen, and unless these two co-operate in full measure, the Census cannot be accurate and thorough.

CAN YOU WASH WITH POTATOES?

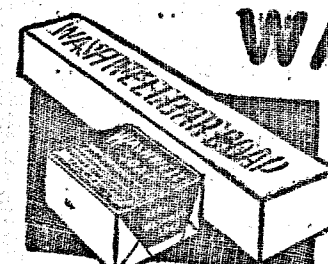
Of course, if you rub hard enough, a potato, or even a lump of chalk will get clothes clean—unless you rub them to shreds first! It costs less in the long run, though, to eat potatoes, use chalk on the black-board and to wash with pure soap.

The common soap substitutes, loaded with chalk or potato-flour "fillers" only waste labour and destroy clothes.



KERALA

WASHWELL



PURE
BAR
SOAP

KERALA SOAP INSTITUTE
CALCUTTA
Department of Industries & Commerce
GOVERNMENT OF MADRAS

SISTA'S-KS-6

The Census operation is not an official enquiry of the usual kind. It is merely, and necessarily, a record of the answers given by the citizen to his enumerator. It is the enumerator's duty to put each of the prescribed questions to the citizen and to explain them to him sufficiently to make sure that the latter has understood the questions, and he is bound to record the answers thereafter given by the citizen. It would obviously lead to all sorts of complications and difficulties and would result in the breakdown of the Census if the enumerator began cross-examining the citizen and attempted his own enquiry and preferred to substitute its result for the answer given by the citizen.

It will thus be clear that, for any inaccuracies in the Census data, the citizens will, in fact, be much more to blame than the enumerators and supervisors. The Census will accordingly be largely what the citizens make of it. The enumerators can help the citizens when they require clarification of any questions put to them. After the clarification by the enumerator, it becomes the citizen's clear duty, as he is legally bound, to give a true and accurate answer without speculating about the inferences that may be drawn from his answers and the uses to which they may be put.

The 1951 Census Questionnaire

Some changes have been introduced in connection with the 1951 Census in the light of the experience gained at the previous Censuses. The Census questionnaire cannot be more ambitious than what the least able among the enumerators can grasp and convey correctly to our illiterate citizens and what the latter can be expected to understand fully. Some questions have, therefore, been eliminated, and others made clearer. We are giving special prominence to questions the answers to which would throw light on the economic condition of the people. Further, consistent with our New Constitution, we shall not attach any importance or waste time and effort over a detailed enumeration of all castes, and the question relating to community has been strictly restricted to what is in fact required for implementing the provisions in our Constitution relating to the Scheduled Castes, Scheduled Tribes and other Backward Classes: only the backward communities will be enumerated in detail, and all the non-backward communities lumped together for purposes of enumeration and tabulation.

There will be 14 questions in the Questionnaire prescribed for the 1951 Census:

- 1 Name and relationship to head of household.
- 2 (a) Nationality.
- (b) Religion.
- (c) Classification of community.
- 3 Marital condition.
- 4 Age.
- 5 Birth place.
- 6 Date of migration to India and district of origin in Pakistan in respect of displaced persons from Pakistan.
- 7 Mother-tongue.
- 8 Bilingualism.
- 9 Economic status.
- 10 Principal means of livelihood.
- 11 Secondary means of livelihood.
- 12 Literacy and education.
- 13 Incidence of leprosy.
- 14 Sex.

I would make special mention of the 12th and 13th questions. The former question, viz., Literacy and education is obviously of vital importance, because we are going to have all our elections in future on the basis of adult suffrage, and the growth of our democracy will very largely depend on the success with which, and the pace at which, we liquidate illiteracy in our country. The 13th question was left by the Government of India to be settled by this Government and we decided that it should deal with the incidence of leprosy, which is one of the serious infectious diseases and it is obviously desirable to have comprehensive data as to the incidence of this disease so that the Government may be able to formulate the most effective measures possible for the prevention and cure of this disease.

Enumeration and Corrections

As the Census time will be sunrise on the 1st March as usual, the detailed enumeration will be conducted during the period of 20 days from the 9th February 1951 to the 28th February 1951 and the necessary corrections with reference to the Census time will be made after inquiries conducted from the 1st March and completed by the 3rd March at the latest. As in 1941, there will be no one-night enumeration (except for the homeless persons who will be enumerated everywhere on the night of the 28th February and the enumeration will be made directly on the enumeration slips).

We are arranging for effective publicity for the 1951 Census and you will hear many speakers speaking on different aspects of the Census in all the principal languages of this State from the several Stations of the A.I.R.

The present series of Talks which I have great pleasure in inaugurating will be by distinguished non-officials and will be of a general nature, the chief aim of the talks being to stress the importance and utility of the Census Operations and the imperative need for public co-operation. The series which will continue till the end of this calendar year will be followed up early next year by talks by our Superintendent of Census Operations and other officials selected by him, which will deal with the details relevant to the Census Plan and its execution.

I am sure that my appeal for public co-operation in connection with the 1951 Census will meet with a ready and enthusiastic response, so that, that Census may beat all previous records from the point of view of accuracy and the hearty and intelligent co-operation of the citizens that has made that result possible. JAI HIND!

—By Courtesy, A.I.R., Madras.

Loans to Cottage Industries Societies

The Registrar of Co-operative Societies has been authorised by the Government to disburse State loans to Cottage Industries Societies manufacturing and selling ready-made garments, for the purchase of tools, implements, or machinery or in special cases, raw materials, and for the construction of work sheds or workshops. Loans to members as advances to purchase articles mentioned above will also be given.

Loans thus advanced will bear an interest of 4 per cent per annum. Loans obtained for the purchase of raw materials are repayable within 12 months and in the case of other loans, the Registrar will fix the period of repayment so as not to exceed, in any case, ten years.

Publication of Draft Electoral Rolls

In order to enable the general elections to be held at an early date, the Government have decided to publish the draft electoral rolls which are common for the Madras Legislative Assembly and the Union House of the People, and which have been prepared on the basis of adult franchise under the New Constitution, as the preliminary electoral rolls even before the constituencies are delimited. The publication will be made by electoral units consisting of convenient territorial administrative areas. The rolls relating to Madras City will be published in the office of the Collector of Madras and those relating to the taluks and sub-taluks in the mofussil will be published in the taluk and sub-taluk offices. The rolls relating to the Laccadives and Minicoy Islands will be published in the office of the Tahsildar, Kozhikode, and those relating to the Amindivi Islands in the office of the Tahsildar, Mangalore. The roll relating to Fort Cochin will be published in the office of the Stationary Sub-Magistrate, Fort Cochin. This publication will be made on the 15th November 1950 or soon thereafter in accordance with the Representation of the People (Preparation of Electoral Rolls) Rules, 1950.

The electoral rolls have been prepared separately for local units, that is, for each village and minor panchayat and for each convenient locality or block in other areas. After the publication referred to above, the roll for each local unit will be published by affixture to a public building in the local unit and in the office of the Registration Department, Police Station and office of the Local Body, if any, having jurisdiction over the local unit. The fact of publications will be announced by beat of tom-tom in villages and minor panchayats. Special arrangements are being made for local publication in the West Coast islands also.

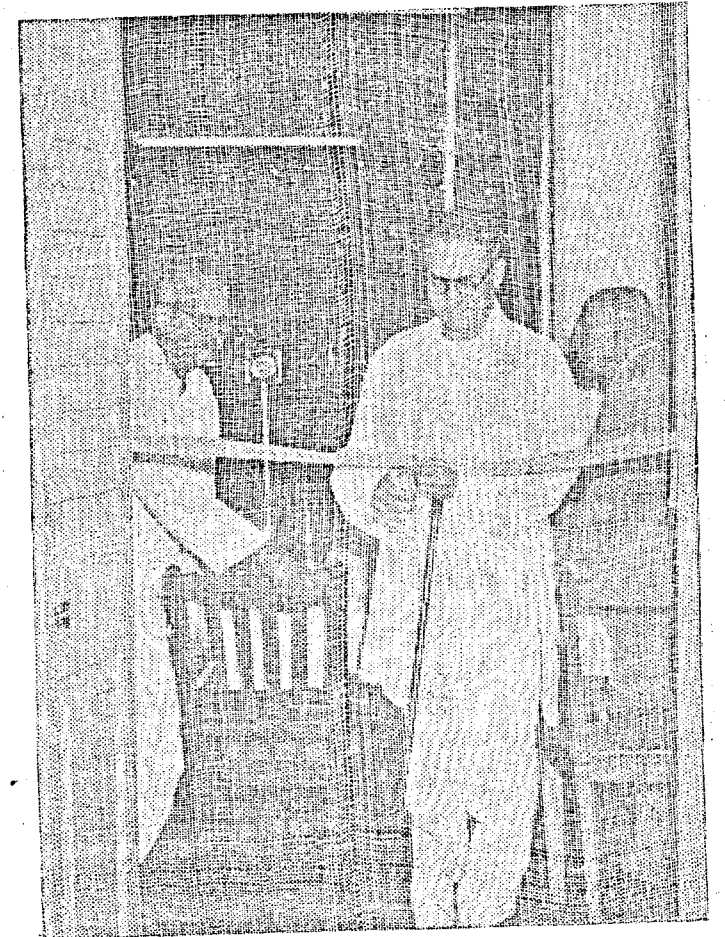
Electoral Registration Officers and Revising Authorities

In Madras City, the Personal Assistant to the Collector of Madras is the Electoral Registration Officer and in the mofussil the Tahsildar or the Deputy Tahsildar in charge of a taluk is the Electoral Registration Officer for the taluk (excluding sub-taluks within it) and the Deputy Tahsildar in charge of a sub-taluk is the Electoral Registration Officer for the sub-taluk. For the Laccadives and Minicoy Islands (Malabar Islands) and the Amindivi Islands (South Kanara Islands) the Tahsildar, Kozhikode, and the Tahsildar, Mangalore, respectively, are the Electoral Registration Officers. The Stationary Sub-Magistrate, Fort Cochin, is the Electoral Registration Officer for Fort Cochin area.

The Collector of Madras is the Revising Authority for Madras City, and in the mofussil the Revenue Divisional Officer is the Revising Authority for the entire area within the limits of his revenue jurisdiction. The Revenue Divisional Officer, Kozhikode, is the Revising Authority for the Malabar Islands and the Revenue Divisional Officer, Mangalore, is the Revising Authority for the South Kanara Islands. The Revenue Divisional Officer, Fort Cochin, is the Revising Authority for Fort Cochin area.

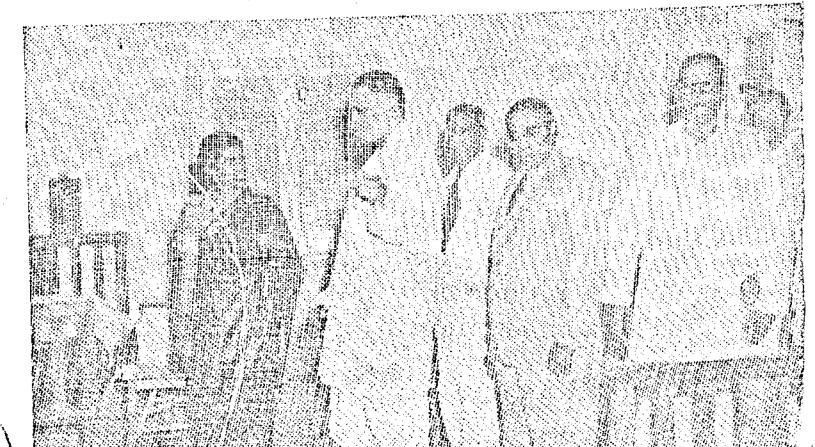
Form of Electoral Roll

The rolls have been prepared only in the respective regional languages and in diglot for Madras City (Tamil



Sri P. S. Kumaraswami Raja, Chief Minister, opening a Maternity Ward at a Health Centre in Poonamallee

The Chief Minister inspects the Maternity Ward after the opening ceremony



and Telugu) and for Kasaragod Taluk of South Kanara District (Malayalam and Kannada). The preliminary rolls will be available for sale in the offices of the Electoral Registration Officers and Revising Authority. The entries relating to each voter in the electoral roll are in a single line. The following are illustrative entries:—

150 [5—15—57] A.B. (Z.W.) S (C) 25

151 [2—10] A.B. (Z.W.) S (C) 31

152 [2—10] A.B. (Z.W.) S (C) 45

In each of these illustrations, the first entry is the serial number of the voter in the local unit, while the second entry is his full house number. The third entry A.B. is the voter's name. The fourth entry is the name of the voter's husband in the case of married women including widows, and the name of the voter's father or karnavan, as the case may be, in other cases. The fifth entry 'S' specifies the voter's sex. The sixth entry 'C' specifies the voter's caste or tribe, while the seventh entry gives the voter's age. The second, fourth and sixth entries are enclosed in brackets.

The second entry—the full house number—gives the local address of the voter. In cases where there are three numbers in this entry, for example [5—15—57], the first is the locality number, the second is the street number and the third is the number marked on the door of the house. The locality number and the street number are those affixed along with the name board at the entrance to the street. In the illustration above the second entry means house No. 57 in street number 15 in locality No. 5. The numbers 5—15 will be found marked along with the name board at the entrance to the street.

In cases where there are only two numbers in this entry, for example [2—1], the first is the block number and the second the house number. Both these numbers will be found marked on the door of the house. In local areas where no blocks or localities have been formed, the single number marked on the house will be entered here.

Where there are blocks or localities, there will be a key list prefixed to each electoral roll to indicate the locality, street or block.

Qualifications of an Elector

A person is qualified for inclusion in the electoral rolls if he or she

- (1) is a citizen of India;
- (2) is not of unsound mind and does not stand so declared by a competent Court;
- (3) was not less than 21 years of age on the 1st March 1950; and
- (4) was ordinarily resident in the local area where enrolment is desired for not less than 180 days during the period beginning on the 1st April 1947 and ending with the 31st December 1949.

Claims and Objections

The electoral rolls are now being published for the purpose of inviting claims from qualified persons who have not been included in the rolls, and for objections to the inclusion of any person's name in the roll or to any particular in any entry in the roll. Claims and objections should be made in the printed form that is available free of charge with the Electoral Registration Officers and also village officers, Piska Revenue Inspectors, Executive

Officers of Major Panchayats, Cantonment Boards and Townships and Commissioners of Municipalities. The form for claims is Form VI and that for objections is Form VIII. The claims and objections should be addressed to the concerned Revising Authority and may be presented to him or to the Electoral Registration Officer, or to the officers mentioned above, or sent by Post. A claim should be signed by the claimant or an agent authorized in writing by the claimant and it should be presented in person either by the claimant or the authorized agent, unless it is sent by post. Claims and objections should reach the officers specified above within 21 days after the date of publication of the preliminary electoral roll in the office of the Electoral Registration Officer. If the last date falls on a Sunday, or other holiday, the next working day will be the last day for filing claims and objections. This date and particulars of the Revising Authority and other officers to whom the claim or objection may be presented will be specified in the notice that will be published along with the preliminary roll. Claims and objections received after the date specified will be rejected. An objector should himself be a voter in the Electoral Registration area.

A person desiring transfer of his name from the electoral roll of one local unit to another, should prefer an objection (in Form VIII) to the inclusion of his name in the former roll and a separate claim (in Form VI) for the registration of his name in the latter roll. He should also state precisely and fully in the declaration in the claim form (Form VI) that he has applied for deletion from the former roll, and in the objection form (Form VIII) that he is applying for deletion as he has preferred a claim for inclusion in the latter roll.

A person desiring correction of any entry in the roll relating either to himself or to any other person should apply in the same form as for objections (Form VIII).

A separate objection form should be filed in respect of each person objected against.

Under the rules, the Electoral Registration Officer can apply to the Revising Authority for the making of any corrections in the electoral roll which he considers necessary for the preparation of a complete and accurate roll. Therefore, in cases of obvious printing and clerical mistakes noticed in the roll, it is sufficient if they are brought to the notice of the Electoral Registration Officer by a letter and it is not necessary to prefer an objection in the printed form. The Electoral Registration Officer will also apply to the Revising Authority for the removal of the names of deceased voters and disqualified persons.

Persons making claims and objections should fill up all the blanks in the forms including the notice counterpart of the forms as far as it is possible for them. The blanks in the form relating to date and place of hearing will be filled up by the officers authorized to receive the claims and objections with reference to the programme for the hearing already drawn up by the Revising Authority. These officers will serve the notices then and there on the claimant or objector, as the case may be. In cases where the claim or objection is sent by post and it is not possible to serve the notice then and there, the notice will be served through the village officers in villages and Minor Panchayats, Executive Officers in Major Panchayats, Cantonments and Townships, and Commissioners in Municipalities. If personal service is not possible, the notice will be served by affixture of a copy at the residence or last known

residence of the person concerned and if this is also not possible, the notice will be sent by Registered Post. The notice to the person to whose inclusion in the roll objection is made, will always be served in the above manner.

Disposal of Claims and Objections

The Revising Authorities will hold sittings according to the programme already drawn up by them. In Madras City, the hearing of the claims and objections will be at the office of the Collector of Madras, and in the mofussil, each Revising Authority will hold his sittings in each municipality, taluk and sub-taluk headquarters and other convenient centres. The Revising Authority will hold a summary inquiry into each claim or objection in the presence of the village officers or the tax-collecting staff of the local bodies, as the case may be, who will be asked to attend. The claimant or the objector should attend the hearing and be ready with all his evidence both oral and written, which he wishes to adduce in support of his case. As soon as the claims and objections relating to a local unit have been disposed of by the Revising Authority, the final list of amendments for that

unit will be prepared by the Electoral Registration Officers with reference to the decisions of the Revising Authority which are final in law. These final lists of amendments will be printed and sets consisting of the preliminary roll and the final list of amendments for each local unit will be formed. After the constituencies have been finally notified, these sets of rolls for all the local units comprising the constituency will be combined to form the final roll for the constituency.

The Government appeal to all persons in this State, especially leaders of political parties, to see that all qualified persons who have not been included in the draft rolls apply in time for inclusion in the rolls in order that the final rolls may be complete and accurate. The officers in charge of the work of finalising the electoral rolls will gratefully welcome any assistance that the leaders of political parties and public bodies give them.

The draft electoral rolls for the territorial constituencies of the Madras Legislative Council will be published later and a separate announcement will be made in regard to them in due course.

Official Contribution and Private Agencies in Social Welfare Work

Government is wedded to the work of social amelioration, especially of the backward sections. There are tribal people in the remotest forests who are not only banished from our towns and villages, but are also banished from all vestiges of culture and civilization. Those malarial-stricken sub-human beings must be made human. There are some social workers who have devoted themselves to the welfare of such people for a long number of years and all glory to them. Recently the Government have appointed a Special Development Officer on the grade of a Collector, to look after their interests. We are spending lakhs of rupees on Harijan amelioration and this year we have budgetted to spend over 90 lakhs of rupees on those ex-untouchable friends. We have given full fee concessions at all stages to the students, given enormous sums as boarding grants, have acquired house-sites for them, have appointed them to high places in Government service. The Harijans are going through a mighty revolution which in the course of a few more years will transform them beyond recognition. We are also, through our Labour Department, looking after the welfare of the millions of labourers in the Presidency. We realise more than anybody that there is a lot more to be done for them and especially for the agricultural labourer and I am sure we will do it with the willing co-operation of the public.

I visualise social work in the widest possible terms. Governments must be induced to legislate and spend more monies on these ameliorative works. But there is a limit for official contribution. The main work must continue to be the work of the non-officials. Without non-official care, attention and supervision, Government work will be a dull, lifeless expensive affair. While the Government can give flesh and bone, the real life must come from the non-official agencies, to recognise this and to canalise their work through proper channels and give them further opportunities for the integrated social welfare work. Now that our freedom is won, if there is less pre-occupation with political questions and more concentration on social work, it will do much more good to the society. Our social work must be such as to throw out selfless leadership and see that it gets support from all sections. A constantly changing leadership conduces to the weakness of the society and it is not desirable. We must know how to select our leaders and give them all the strength necessary for them to continue in that position. All that goes to make a strong State will also go to make a strong Society, both are inter-dependent. If we neglect one and rivet our attention on the other it will not add to our strength.

—B. GOPAL REDDI, Minister for Finance

Food Situation in Madras State

By SRI M. A. KUTTALALINGAM PILLAI, Secretary, Food and Agriculture Department

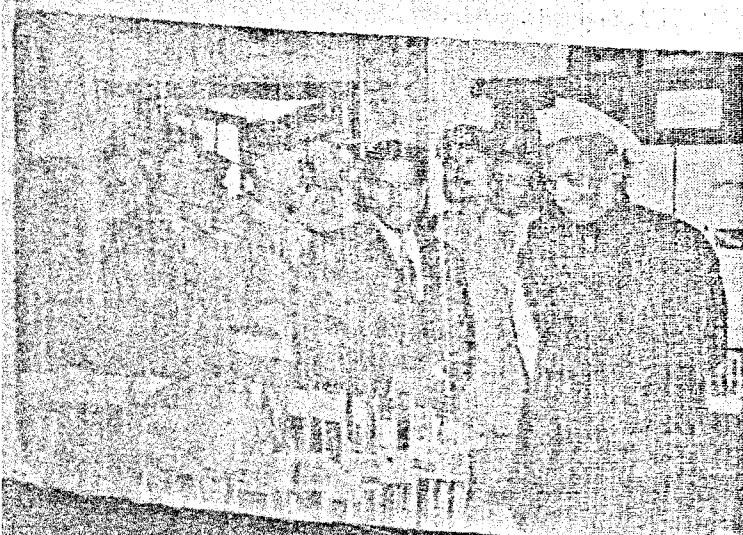
The food position in Madras State has been causing the Government during the last three or four months the greatest anxiety since the introduction of controls in 1943. For a proper appreciation of the position it is necessary to explain how this was brought about. The usual deficit of about five lakhs of tons of foodgrains per annum, the increase in population since the outbreak of the Second World War, the failure of one or other of the monsoons in several districts for the last three years in succession, which reduced our production and our staying power considerably, brought about a situation bordering on famine. To complete the picture, there was the cyclone in the Circars in October 1949, which caused terrible damage to food-crops to the extent of 3½ lakh tons of foodgrains, costing over 13 crores of rupees, not to speak of other damages. The outlook in the beginning of the year was therefore gloomy.

The several thousands of irrigation sources in the State unconnected with the big river systems have now been empty for three years with their ayacuts, excepting small extents here and there, which have the benefit of wells, lying waste. Even in regard to these wells the water table has gone down appreciably in all of them without exception and their capacity to irrigate has been curtailed to one-fourth or one-half of their normal extent. Several hundreds of wells have actually gone dry with the result that there is a scarcity even for drinking water in many areas. There are over eight lakhs of irrigation wells in this State which under normal conditions are expected to command nearly 21 lakhs of acres. Under present conditions it is doubtful if they could command even one-half of this extent successfully.

Decline in Procurement

To add to our misfortunes, the South-west Monsoon of this year was late in coming by over a month and this

Dr. Rajendra Prasad, President of the Indian Republic, paid a visit to the National Defence Academy (Joint Services Wing), Dehra Dun. Photo shows the President being conducted round the Information Room of the Academy.



had not only the effect of restricting the area under cultivation, which is now computed at about three to four per cent less than in last year, but has also told seriously on our procurement. In this atmosphere of doubts and scepticism about the prospects of the next crop, which this state of affairs had produced in the minds of the ryots, they were naturally inclined to withhold from procurement what little surpluses they might have had and which they would have released in the ordinary course. Our procurement therefore declined rapidly from about 15,000 tons a week in June last to 6 or 7 thousand tons a week in July and August. Even now the procurement is not up to the mark, as we are getting only 17,000 to 18,000 tons a week, against 24,000 tons per week in October of last year.

The total quantity of rice procured in the Kharif year up to 21st October 1950 was only 9.75 lakhs of tons against 13.25 lakhs of tons during the corresponding period of last year. The procurement of millets in the State has not been appreciable at any time, being only about one lakh tons against a normal production of about 27 lakh tons. This year's procurement upto 21st October 1950 is 89,000 tons against 77,000 tons last year and may be considered to be slightly better. This is to a large extent due to Rayalaseema having come forward to help in a more generous measure the other unfortunate districts in dire need. Taking both rice and millets, the procurement this year is comparatively poor.

Stocks Rushed to Ration Shops

The offtake however has been increasing, as more and more people have been thrown on ration shops, as and when their own resources got exhausted. In June and July this year stocks were therefore going down steadily by about 15,000 tons a week. The stock position had become very low by about the end of July and we had practically to depend on imports. In several centres, the stocks amounted only to one or two weeks' requirements, while some others had only four or five days' stocks.

It would be humanly impossible to ensure a meticulously equitable distribution in all the areas under such circumstances. There was a breakdown of rationing in several areas and there was some suffering in consequence. This was sometimes exaggerated but human nature is prone to exaggerate difficulties. But whenever any suffering was noticed, special arrangements were made to rush supplies unmindful of the cost. In many instances stocks were rushed to ration shops directly from railway wagons. Rice position being particularly difficult, Government were obliged to reduce the ration from 8 oz. to 7 oz. in the first instance and finally to 6 oz., promising to give the balance in the shape of wheat or milo.

All-out Efforts to Tap Surpluses

Government have been trying their level best to fulfil their obligations in this regard. They have started an intensive procurement drive particularly in regard to the richer class of ryots, who are likely to have some surpluses still left with them. Officers of the Revenue Department including the Collectors of Districts have been asked to pay their personal attention, giving this item of work a

very high preference. Hon'ble Members of the Legislature have also been specially requested to offer their co-operation to the officials in this direction. An appeal was also made to the Centre for immediate help. We had already apprised them of the precarious food position in the State and pressed for the allotment of larger quotas and for their timely and systematic movement. But the world conditions were difficult with regard to foodgrains in general and rice in particular and there was therefore some delay in the arrival of foodgrains from foreign countries.

I must, however, acknowledge here with gratitude, the ready response which we had from the Centre at a time when conditions here were very critical. They not only increased our basic quota from 3 to 5½ lakhs of tons but also took steps to see that the Madras quota moved on topmost priority. We were, therefore, able to receive during the months of July, August and September nearly 285,000 tons of foodgrains. We have since received 45,000 tons in the month of October. But still our stock position has not improved appreciably, as whatever stocks that were moved were consumed then and there with very little possibility of building up of stocks.

Wheat and Millets Distributed

Our total stocks on 31st October 1950 were less than one-third of what we had on the corresponding date of last year, being only 98,911 tons as against 314,000 tons. But it is a matter for some satisfaction that in spite of the failure of the crops in three consecutive years and in spite of poor procurement, we have distributed during this period of two months between 5th August 1950 and 7th October 1950, when the position was very critical, over 385,000 tons, which exceeds what was distributed during the corresponding period of last year. The rice portion of it was, no doubt, only 225,000 tons against 316,000 tons last year, but this shortage was more than made up by a larger distribution of both wheat and millets. Yet there are still complaints particularly from rural areas, that the full ration of 12 oz. was not being distributed and that in some villages nothing was distributed during several days.

While I do not deny that such lapses have occurred in some areas owing to the stress of circumstances, I can boldly state that whenever such complaints were received, immediate instructions were issued to the Collectors concerned to look into them without loss of time and every attempt was made to fulfil the Government's obligations to the maximum extent possible. If our efforts did not succeed to the fullest extent, it was due to conditions beyond our control. It should be remembered that the situation was unprecedented and if the results did not prove more serious than they ultimately turned out to be, to a large extent, it was due to our system of distribution, though it might fall short of the ideal.

We have Turned the Corner

Very serious suggestions were made sometime ago that large quantities of rice were still available in Burma and that private merchants would import large quantities, if they were only given a chance. But the Southern India Chamber of Commerce subsequently made it clear that under conditions now prevailing in Burma, private imports would be out of the question. The Government of India are, however, doing their level best to secure the

maximum quantity of rice possible from Burma at a reasonable price. I think we have turned the corner, though the stocks on hand are still poor.

On the basis of the present off-take, the stocks of rice will last for three weeks and of other grains for two weeks. The *Kuruvu* harvest in Tanjore and Tiruchirappalli Districts and the main harvest in Malabar District are in full swing. The main harvest in South Kanara has just commenced. Small harvests in Tirunelveli and Madurai are also going on. The harvest of Rasangi and Basangi in East and West Godavari Districts will be commencing shortly. The harvest of the millet crops will also have commenced in many districts in the course of these days. District Officers have been asked to concentrate on procurement and secure the maximum quantity. We are also expecting an import quota of 50,000 tons from the Government of India. I can, therefore, assert with confidence that we have turned the corner.

Need to Restore 8 oz. Rice Ration

But all these are small harvests and will only enable us to maintain the present rice ration of 6 oz. with additional help from the Centre, for which a special appeal has been made to them. This meagre rice ration for a class of people who are essentially rice-eaters, is far too inadequate and cannot be viewed with complacency. Government are also aware that a reduced rice ration will only encourage black-marketing but also make procurement difficult. They are, therefore, anxious to restore the rice ration to 8 oz. as early as circumstances would permit. But this would to a large extent depend on the success of our main crop, which will be harvested between December and

SOIL EROSION

Few people are aware of the havoc that is being wrought and the toll that Nature is taking through the advance of 'Creeping Death'—soil erosion. With the action of the rains of the exposed areas, the run-off damages, the cultivated lands and because of this, an appreciable portion of our good lands are becoming sub-marginal and a portion of the sub-marginal land is going out of production. It is estimated that more than a third of our agricultural lands are subject to erosion and millions of acres have been totally lost. It is, therefore, necessary to plan carefully the development of such areas.

Eroded fields have reduced the possibility of grazing in the locality to zero.



February next and secondly, on the extent to which we are able to procure out of it.

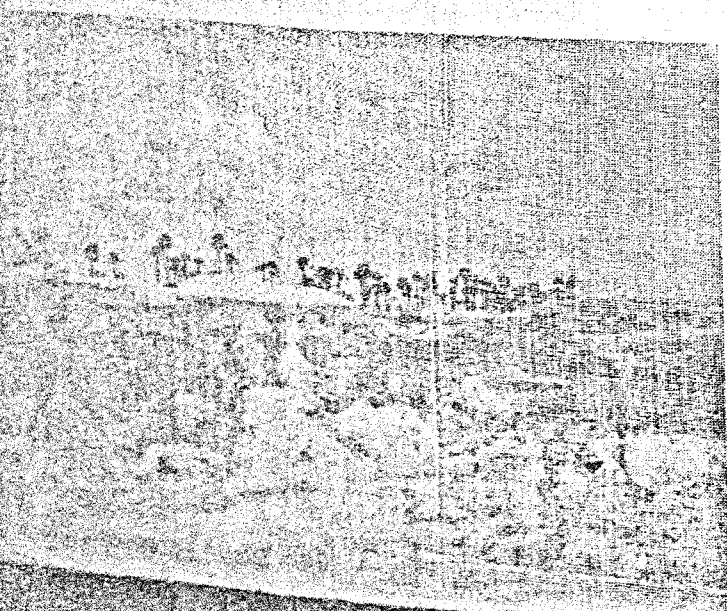
As already mentioned, an all-out effort will be made in this direction but the wholehearted co-operation of the ryots is also necessary to make it a success. The system in force in this State is what is called Intensive Procurement System under which the surplus with each producer is estimated with reference to certain principles, with which the public are already familiar. Allowances are made for domestic consumption, for seed requirements, for payment of wages in kind for agricultural operations, where it is customary to pay them in kind.

Controls Protect Interests of the Masses

It is only the surplus after allowing for these items that is liable to be procured. As the agricultural practice differs from tract to tract, District Collectors have been instructed to fix these allowances with reference to local conditions. This is very reasonable and the producer cannot have any grouse. But complaints are being received that these instructions are not being strictly adhered to in practice. Whenever such complaints are received, they are being examined and appropriate action is being taken. I may, however, state in this connection that counter-complaints are being received from the procurement officials that the ryots do not disclose their surplus stocks but disperse and secrete them and that procurement has practically to be done by force. But so long as the shortage in foodgrains lasts, it would be difficult to give up controls. Procurement and rationing in some form or other will have to be continued in the interests of the masses.

These controls are thus an inevitable evil and the only method by which its rigours could be mitigated is by the ryot extending his co-operation and not by obstructing it. It has always been the responsibility of the Government of any country and at any time to feed the landless in times of drought. I would make an earnest appeal to the producers in the name of humanity to part with their surplus produce voluntarily without waiting for coercive processes, which would also mean monetary loss to the producers, who will get less when stocks are requisitioned.

Sometimes 20-feet deep ravines are formed in fine deep loam and fine white clay.



Problems of Cost and 'Ghost' Cards

There is also another aspect of the question. Rice is the most costly grain and its price in the soaring market ranges from Rs. 22 to 25 per maund against Rs. 15 per maund for wheat and about Rs. 10 per milo. It will be in the interests of the country, therefore, that the more costly variety should be avoided as far as possible. But there is a marked tendency on the part of the mixed diet or millet-eaters to demand rice exclusively, perhaps out of a feeling that millet-eaters are inferior to rice-eaters in social hierarchy. This is a wrong view to take. One's status or importance does not depend on the kind of food that he takes or the dress that he wears. Millets constitute a very healthy food and could any day compare favourably with rice. If the millet-eater would therefore accept millets without demur and not agitate for reclassification as a rice-eater, it would help the Government in its attempts to reduce the consumption of rice, which is both difficult to get and costly.

There is also the problem of "Ghost" cards. The possessor of the ghost card simply appropriates food which, properly speaking, should go to some one else, and thus tries to get a double share at the expense of the other person. It is needless to say that this is a crime against society and should be repressed without mercy. Here also the co-operation of the public would be very useful and without their co-operation it would be almost impossible for the limited staff engaged on this work to eliminate all such cases.

Towards Self-sufficiency

Any talk on this subject may not perhaps be complete without reference to Grow More Food. India has set its goal of self-sufficiency in the matter of food by the end of 1951. Taking our own State, this question is being tackled on various fronts, such as irrigation works, land improvement works, distribution of fertilisers, distribution of better seeds, etc. Criticism has sometimes been levelled that these schemes have not produced any results. This is not correct. Thus, for instance, more than 19,000 new wells have been actually sunk up to 31st March 1950 in the course of the year 1949-50 and they have produced additional foodgrains to the extent of about 24,000 tons. The scheme relating to the distribution of seeds and manures can be expected to produce results only at the end of the harvest.

All these schemes put together have produced about a lakh of tons up to 30th June 1950 and may be expected to yield more in the course of the year. But we are not in a position to give up procurement as yet. We have passed through a food crisis and are just emerging out of it. It is possible to pull through without serious consequences and reach an era of peace and plenty in no distant date with mutual sympathy and co-operation. I only make an earnest appeal for all concerned to make a wholehearted and joint effort to reach the goal.

By courtesy, A.I.R., Madras.

Four More Villages for Rural Scheme

The Government direct that the four villages of Nadisal, Padebethu, Nadikur and Palimar be included in the Mulky firkha selected for Intensive Rural Reconstruction work in the South Kanara District and that the Rural Welfare Scheme be extended to these villages also.

Food Offences and Punishments Awarded

During the fortnight ending 15th August 1950, 292 cases of prosecutions were disposed of in respect of food offences in Madras State.

Particulars of cases in which heavy punishments were awarded are described below:

Nellore.—A. Subbiah was fined Rs. 300, in default, to suffer R.I. for six months for illicit transport of foodgrains.

Tiruchirappalli.—(i) Mariappa Goundan was fined Rs. 200, in default, R.I. for three months and Chinnappa Goundan, Ramasamy Goundan, Palaniappa Goundan and Mariappa Goundan were each fined Rs. 400, in default, R.I. for three months and sentenced to undergo R.I. till rising of Court for illicit transport of foodgrains from one district to another.

(ii) Kakir Mohammed was sentenced to pay a fine of Rs. 200, in default, R.I. for two months for unauthorized possession of 72 Madras measures of rice 20 Madras measures of wheat and 19 Madras measures of wheat flour.

(iii) Dharmalingam who imported half a bag of rice illicitly was fined Rs. 200, in default, R.I. for two months.

Salem.—Periasamy Goundan, Ibrahim Sahib and Veerappa Asari were each sentenced to pay a fine of Rs. 200, in default, to suffer R.I. for two months for unauthorized purchase of paddy without a valid permit.

East Godavari.—(i) Boddu Narayya who hulled paddy without permit was fined Rs. 200, or in default, to suffer S.I. for two months.

(ii) Prathivadi Bhayankara Ammana Srinivasacharyulu was fined Rs. 400 in default to suffer S.I. for two months for selling paddy to persons other than those appointed by the Collector.

During the same fortnight, other departmental punishments such as warnings, fines, forfeiture and enhancement of security deposits, cancellation of retail and wholesale licences, etc., were also awarded to persons who were dealing in foodgrains in 161 cases—one each in Anantapur, Krishna and Salem Districts, 2 each in Chittoor, Coimbatore, South Kanara and Tanjore Districts, 4 each in West Godavari and Tiruchirappalli Districts, 6 in East Godavari District, 7 in Guntur District, 8 each in Ramanathapuram and Tirunelveli Districts, 10 in Nilgiris District, 15 in Madras City, 10 in Malabar District, 34 in Visakhapatnam District, 36 in Bellary District and nil in Kurnool and Nellore Districts.

For the Fortnight ending 31st August 1950

During the fortnight ending 31st August 1950, 569 cases of prosecutions were disposed of in Madras State.

Particulars in which heavy punishments were awarded in the districts are described below:

Tanjore.—(i) Kannusami Sholagar was fined Rs. 200, in default, R.I. for two months, for illicit transport of eight bags of cumbu.

(ii) Ramanuja Naidu and Rajagopala Ayyar, who were in possession of paddy in excess of requirements, were fined Rs. 300, in default, S.I. for three months and Rs. 500, in default, S.I. for five months, respectively.

Guntur.—Sama Kotilingam, Vysya, hotel-keeper, Ongole, was sentenced to pay a fine of Rs. 200 with two months' R.I. in default, for possession of rice more than the permissible quantity.

Tiruchirappalli.—(i) Narayana Nair was fined Rs. 200, in default, R.I. for two months for unauthorized possession of rice.

(ii) Palanisami Chettiar who illicitly transported three bags of paddy was convicted and sentenced to undergo R.I. for one month and a fine of Rs. 400, in default, R.I. for two months.

Salem.—Ramaswamy Goundan, Ratnasabapathi Goundan and Kadar Basha Sahib were fined Rs. 200, in default, R.I. for two months, Rs. 200, in default, S.I. for one month and Rs. 200, in default, R.I. for one week, respectively for unauthorized purchase of paddy.

East Godavari.—(i) V. Venkanna and Chandru Satyam were each fined Rs. 200 with two months' S.I., in default, for hulling paddy without permit.

(ii) G. Dhana Raju was fined Rs. 200 for unauthorized purchase of rice.

During the same fortnight, other departmental punishments such as warnings, fines, forfeiture and enhancement of security deposits, cancellation of retail and wholesale licences, etc., were also awarded to persons who were dealing in foodgrains in 155 cases—one each in Anantapur, East Godavari and South Kanara Districts, 2 each in West Godavari, Salem and Tirunelveli Districts, 3 each in Chittoor and Tanjore Districts, 4 each in Guntur and Nilgiris Districts, 5 in Tiruchirappalli District, 8 in Ramanathapuram District, 17 in Coimbatore District, 20 in Madhurai District, 22 in Visakhapatnam District, 23 in Malabar District, 37 in Madras City and nil in Krishna and Nellore Districts.

Two Years of Prohibition

By SRI N. SANJEEVA REDDI, Minister for Prohibition

The benefits of the Prohibition policy have been so many and millions of people are enjoying the fruits of it in all remote corners of the State. However good and noble an act may be, we will have invariably to face the criticism of a few individuals, either because they disagree with the policy or because they are affected personally. Therefore, it need not obviously deter the determination of the Government in pursuing the policy effectively and rigorously.

At the same time, there is nothing wrong in analysing the points of criticism of the opponents of the policy. The Government are certainly pleased to note that none of the opponents of this policy could openly criticize it as a bad one but their criticism is entirely on the plea that it is unworkable and that it is an economic waste when the State badly needs money for so many other beneficial schemes. It is agreed by all that we need lot of money to undertake so many schemes which are absolutely and immediately necessary for the benefit of the people of our State.

Problem of "Sin Money"

But my point is that we have many sources of making good the need than thinking of securing money through this sin. Ninety per cent of the excise money was contributed by the poorest of our men, while the benefits created out of the money, for example, schools and hospitals, are more within the reach of middle-class and upper class population. Therefore, I wonder whether anybody has a right to expect the poorest of the population to contribute for them by ruining themselves and their families. Though our country is stricken with poverty, there are a few men who by accident of their birth command much wealth. They can certainly without any serious difficulty contribute much more than what they are doing now. I would even go to the extent of saying that we cannot call this giving up of excise income a loss to the Government by any stretch of imagination. I would call this 17 crores of rupees which used to be got through excise revenue a "sin money." No Government which has the good of the people at heart can be a party to it apart from legalising a harmful habit.

When I say it is a "sin money," I am not talking morals. It is not from the moral point of view that I say drinking is bad. I would like to look at it from the economic point of view. Even as ordinary Congressmen, we were not interested in a multi-millionaire or a Maharaja taking to foreign liquor. But we were interested in our poor brothers whose daily income was only a few annas and who used to go to the toddy shop daily to waste the whole amount of the day's wages. No reasonable man would argue that drinks were not injurious to the labour class. Once that point is admitted, there is no other argument which will allow the State to do anything with these drinks.

(The policy of Prohibition which came into force in eight districts in the Madras State in 1946 was extended to eight more districts in the next year and by October 1948 the whole of Madras State went dry. Thus we have total prohibition in force in our State since the last two years.)

Misguided Agitation Against Measure

The other main point of argument of a few in the State is that, since we are unable to enforce Prohibition successfully, it is not wise to continue it. First of all, what they mean by successful enforcement of Prohibition is a thing which is not clear. Any radical social reform brought about by any Government is liable to be opposed by a small section for sometime. But I am sure it will adjust itself in the course of a few more years. We must only have courage and confidence till then to fight the unsocial elements. It is really unfortunate that a few of the agitators against Prohibition are educated and intelligent men of the towns who perhaps are personally affected by these laws. If a few others also join them, it is merely out of ignorance of the facts. Let me admit the fact that there are a good number of lapses here and there, and a few thousands of ex-addicts are still trying to circumvent the law by various means. The anti-prohibitionists have been making a mountain of a molehill of this by telling people that every village consists of a number of illicit distillers and that a larger number of people are drinking now than in the pre-Prohibition days.

Unfortunately, a few Congressmen whose opposition to the present Government is well known, also think that this is fairly a good chance to carry on propaganda against the Government. Very few of the non-prohibitionists have any facts or an overall picture of the State before them. Nor has anybody taken pains to study it before rushing to the Press with vague allegations. Even in the pre-Prohibition days with shops in every corner, the Government had to contend with the few thousands of illicit distillers and illicit tappings. Comparatively, the number of crimes is certainly not very much bigger than in those days. In addition to all this illicit distillation, we had 10,400 toddy shops with 42 lakhs of trees supplying toddy. We had also 6,000 arrack shops and 25 lakhs of proof gallons of arrack being sold every year. This was in addition to the large quantity of illicit distillation existing in those days.

Immense Good to the Poor

With the personal knowledge of affairs in the State, I am convinced that this policy of Prohibition has done immense good to a large majority of poor people in every corner of the State. I had the pleasure of going to a number of remote villages and being assured that a good number of ex-addicts have given it up. It is pleasing to note and hear from the ladies, who had suffered terribly, that they are leading a more prosperous and happy life because of the policy of the Government. I would certainly not deceive myself with imagination that every ex-addict in the village has given up drink. There are a few idle, lazy and irresponsible fellows who think it will be very profitable to continue this illicit trade. But their number is not more than one or two in a hundred.

The thing that most shocks me is that a few rich men are also behind this game of illicit distillation. "Grow rich quick" policy seems to be their motto. Since they are always behind the scene, they think they are beyond the approach of the law. I may warn such men that the day

is not far off when the law will be able to lay its iron hand on them also. Let me appeal to them to give up this bad habit. To think of growing rich by ruining the few hundreds of families through the supply of arrack is the worst crime against humanity. Such fellows are the real untouchables of the land and society must treat them as such.

Difficulties of Prohibition Staff

Let me also place before the public the difficulties that the administration is facing in enforcing this law. The Prohibition Department has to get along with the staff that was never intended for such type of work. They have neither the police training nor their discipline. None of the excise men in those days were trained in the use of arms. Never in those days were they in a position to feel that responsibility since the nature of work in those days was entirely different. But today they are expected to tackle the most difficult duty of enforcing this law. It is very difficult for the State to think of training these men at this age of theirs. Even if we decide to do it, it is not easy to make available the arms and other equipment that they now require. Therefore the Prohibition men are placed in an unhappy position of facing the hostile crowd of law-breakers with just a lathi in their hand. How difficult it is and with what result I need not stress. Yet I must admit that a good number of them have done a very good job facing all the difficulties.

Another general and sweeping accusation that is levelled against this Department is that many of the Prohibition officers are addicted to drink and that they are corrupt. It is really very uncharitable to condemn all the officers of the Department having in possession perhaps one or two stray examples. While admitting that there are a few bad officers for punishing whom the non-officials must fully co-operate with the Government, I must congratulate others in the Department who are doing a splendid work with religious fervour. In view of the very many difficulties that the Prohibition Department is facing, the Government have taken the decision that the enforcement of this law must also be undertaken by the regular police which is in charge of enforcing all the other laws in the State.

Strengthening Enforcement Measures

Though policemen have been enforcing Prohibition in nine districts of our State we had separate Prohibition stations manned by police in these districts with the result that we had police stations and also Prohibition stations separately, which we feel leads to avoidable heavy expenditure. Hence we have now abolished the separate Prohibition stations in four districts of the State—Salem, Coimbatore, North Arcot and Chittoor. We will be extending this scheme to five more districts in the very near future, possibly before the end of this year. The other districts of the State also will be taken up as and when we can show alternative place to the existing excise men in these areas. I feel that the police officer can command better respect and co-operation in enforcing this law than a Prohibition Officer. Therefore I hope Prohibition will be enforced more successfully, at the same time giving the Government a good saving in expenditure.

There is also a lot of public agitation for making punishments under the Prohibition Act more rigorous. The Government do realise the need and are making a few amendments to the Act. It may be possible to place these amendments before the Legislature in the coming session. A fine of a few rupees to a person who has been making a good amount by trading in this illicit arrack, would certainly not be a punishment. Therefore a few months in jail in addition to the fine is perhaps unavoidably necessary. There are instances also brought to my notice when a person charged under this Act secures bail immediately in the usual course and commits a crime again. Thus I have knowledge of the few cases where persons involved in half-a-dozen undecided cases are still continuing their nefarious activities being released on bail. Therefore there is also a proposal to make the offence non-bailable. These are some of the amendments that the Government are contemplating.

Smuggling from Foreign Pockets

The smuggling of liquor from the French Borders and the large sale of tinctures are our serious headaches today. The French authorities of Pondicherry feel that since it is a free port they cannot restrict the quantity of import to Pondicherry. It is therefore evident that the large quantities that are imported there must only find a market in the adjoining area of ours. It is one of the many difficulties that this country has to suffer because of the foreign pockets on our main land. For the present we will have to contend with it by strengthening our border staff.

The question of consumption of tinctures, French polish, Eau-de-cologne, etc., as substitutes for liquors is also disturbing the mind of the public as well as the Government. Since a few of them are absolutely necessary either as medicines or toilets it will not be advisable to have a wholesale ban of the sale of these tinctures, etc. So we are trying to restrict the number of producing centres within the State to the pre-Prohibition level, while we have to stop the unauthorised imports from other States.

Cutting down Ganja and Opium

Along with the drinks ganja and opium also have come under this Prohibition policy. It has also been decided to stop the sale of opium except for medical purposes at the end of five years. Now we are supplying a small quantity from Taluk offices only to registered addicts. We have been cutting about 20 per cent of even that small quantity every year. That process has already begun this year. In addition to this, all attempts are being made to detect the unauthorised imports of this drug into the State by the special staff, who are really doing good work.

In spite of all the difficulties detailed already regarding the strength and the nature of work of the Department, the false propaganda against the policy of prohibition by the interested parties, and the continuous support of a few richer class of people from behind the scene to the culprits; I feel Prohibition will become a complete success with the complete and hearty co-operation of the general public. I would again appeal to the people in the State to realise their responsibility and give all co-operation.

By Courtesy, A.I.R., Madras.

Palm Gur Industry

Palm Gur Industry in the Madras State has received a stimulus consequent on the introduction of Prohibition. Palm jaggery manufacturing co-operative societies have been organised on a State-wide basis as a measure of providing employment to ex-toddy tappers thrown out of work as also with a view to develop the palm gur industry. Tapping of palmyra trees for sweet juice for manufacture of jaggery has been permitted throughout the State except in the Rayalaseema and the tapping of other palms like coconut, date and sago has been permitted in select districts and centres in the State. Co-operative societies for coconut jaggery manufacture have been formed mostly in Malabar and South Kanara Districts and in certain taluks of Coimbatore District.

Tapping of date trees is permitted in the North Arcot and Guntur Districts. Sago palms are tapped for manufacture of jaggery in select centres in the Malabar District. There are at present 1,805 jaggery manufacturing societies with a membership of 1.26 lakhs of ex-tappers which represents nearly 78 per cent of the tappers thrown out of employment. During the year ended 30th June 1950 they produced 27.37 lakhs of maunds of jaggery worth Rs. 122.36 lakhs.

In order to improve the technique of the industry and to enable the tappers to manufacture improved varieties of jaggery, Government sanctioned in October 1949, a scheme for giving State-wide training to ex-tappers in improved methods of production of jaggery. Government sanctioned a sum of Rs. 84,000 under recurring and a sum of Rs. 1,625 under non-recurring. Half the cost of the Scheme under recurring expenditure is met by the Government of India.

Arrangements were made for the supply of the necessary equipment to about 1,000 tappers in the State. The cost of each set of equipment comprising iron pans, juice container, etc., is Rs. 75. These equipments are supplied to the members of the societies through the societies free of cost. So far 850 sets have been got prepared at the Strathie Engineering Co-operative Workshop and 682 sets have been distributed to the ex-tappers. The Palm Gur Instructors conducted training at 96 centres and training was given to 638 ex-tappers. The training related chiefly to construction of improved furnace, application of lime to the pots attached to the trees, introduction of a system of washing and cleaning the pots, correct process of boiling sweet juice, etc. The trainees produced 2,169 maunds of improved jaggery.

Arrangements were also made for the supply of the equipment and the necessary material to the Palm Gur Instructors for conducting demonstrations in improved methods of jaggery production at various centres. Demonstration was conducted at 226 centres and witnessed by 1,195 members of jaggery societies and 1,056 others interested in the industry. It is ascertained that the fuel cost is less by 50 per cent under the improved method and the time taken for manufacture of jaggery is also less. The Palm Gur Instructors also arranged for the societies to participate in the exhibitions which were held in the districts. Pamphlets in English, Tamil and Telugu

relating to Palm Gur were published and distributed to the public. The ex-tappers are just taking to the improved methods of production and are realising that it is possible to produce better quality of jaggery at less cost. A scheme is also under consideration for extending the training to the ex-tappers and for the supply of equipment to them at half the cost during the next palm season.

Fancy Goods from Palmyra Leaves

How the innocent looking palmyra leaf when touched by the dexterous human hand can play an important part in giving bread to the needy may be seen from the following interesting account of the fancy palmyra leaf box industry in vogue in Chingleput District and the fan industry in Tanjore District.

Fancy palmyra leaf boxes are made in Pulicat, a seashore village in Ponneri Taluk. During the early part of the 19th century the ancestors of the present Muhammadan inhabitants were rich merchants carrying on trade with Siam and Singapore. They brought palmyra leaf boxes from those places and their women took a fancy for them and commenced to make those boxes as things of art. As they made them in large numbers, they sold them and gradually it became a subsidiary occupation for the women-folk. As time went on, the Muhammadan merchants lost their trade and became poor. The men dwindled into a set of sundry shopkeepers and fishermen, while their women took to fancy basket and box making with palmyra leaves as a whole-time occupation. There are now about a hundred of them (from girls of 12 years to elderly women) who work all day to make a small earning.

The required leaves are got from the palmyra trees that are abundant in and around Pulicat. They are also purchased from persons who take them for sale at about 6 pies a leaf or so. The leaves are made into thin blades and boiled. They are coloured by adding dyes which are sold in Pulicat. The ribbons after being boiled are soft and smooth. They are slightly dried and then used. No instruments are required for making boxes. They are made by plaiting dexterously with the hands. It requires some skill in arranging the ribbons and in braiding them in order to produce the required shape, dimension and arrangement of colour. The skill is of course learnt by training received in the family circle.

Tanjore is famous for its unrivalled art. That the palmyra also has its own contribution to make to this special feature of the district can be seen from the manufacture of ornamental fans, a special feature of Tanjore. These fans are made out of palmyra leaves which are stitched by Muhammadans who sell them to the shopkeepers dealing in pith works. They buy them and fix them with either wood or with cardboard over which gold leaves are pasted to make them elegant. The body of the fan is colour-varnished and handed over to painters to paint with designs of several flowers. The fringes of the fan is adorned with silk threads of different colours intermingled.

Development of Malnad Areas

The Central Malnad Planning Committee constituted by the Government of India to draw up a comprehensive plan for the development of the Malnad areas in Madras, Bombay, Coorg and Mysore, recently met the Chief Minister, the Minister for Land Revenue, the Minister for Agriculture and the Minister for Prohibition at the Madras Secretariat. Later the Committee met the Chief Secretary, Secretaries to Departments and Heads of Departments.

The Chairman of the Committee, Sri A. V. Ramanathan, presided. The members who attended were: Lieut.-Col. Jaswant Singh, Sri I. C. Subbiah, Sri P. S. Viswanatha Iyer, I.C.S., and Sri J. B. Mallardhya. The Chairman of the Committee appealed to the officers to co-operate with the Committee in preparing a comprehensive plan for the development of the area. The Committee elicited the views of the officers as regards the eradication of malaria, development of roads, extension of power, in that area.

As far as Madras is concerned the Malnad Tracts lie in South Kanara and Malabar Districts and partly in the Nilgiris. The total number of villages in Malnad area in South Kanara is 241 with an extent of 1,241,044.65 acres. In Malabar District the Malnad area lies in the hilly and forest lands with an extent of 1,167,400 acres in the taluks

of Kurumbranad, Ernad, Walluvanad, Palghat, Wynaad, Chirakkal and Kottayam Taluks. Thus the total extent of the Malnad area of this State is 2,408,444 acres.

One-fourth of the total extent of the Malnad area in South Kanara District has been brought under cultivation. Besides 3 lakhs of acres of reserved forests and 4 lakhs of acres of unreserved lands there are about 41,000 acres of cultivable wet lands in the holdings left fallow and about 90,000 acres in the unreserved lands that could be brought under cultivation without much cost. The approximate cultivable land in the Malabar Malnad area is 307,100. These lands are not brought under cultivation for want of required labour, capital and irrigation facilities.

Malnad is abounding in rich growth of trees, canes, bamboos, etc., and affords ample opportunities for initiating cottage industries like manufacture of bamboo baskets, mats, cane boxes, tables, chairs, etc. The population in the 241 villages which constitutes the Malnad area in South Kanara as per 1941 census is 260,251. Anti-malaria work is being carried on in 130 villages of South Kanara. A unit of World Health Organisation is carrying on anti-malaria operations in Ernad Taluk of Malabar District.



Sri P. S. Kumaraswami Raja, Chief Minister, inspected the Government of India Vocational Training Centre for women. The Centre was started by the Ministry of Labour as part of the Training Scheme for Adult citizens. The Chief Minister observes a class in progress.

Reclamation of the Unfortunate

By SRIMATHI P. T. RAJAGOPAL, B.A., L.T., Superintendent, The Stri Sadana and Vigilance Home

It is a true saying that "Every neglected and unwanted Destitute, properly trained and reformed can be an asset to our country." Having this idea in mind, the members of the Madras Vigilance Association engaged themselves in the reclamation, reformation and rehabilitation of erring girls and of those whom they rescued from houses of ill-fame in the Madras City and in different parts of the Madras Presidency. In 1925 the said Association was formed with the object of combating immorality, especially commercialised vice. This magnanimous work had been taken over from the Association by the Madras Government in May 1948 due to the financial stringency encountered by the Association in managing the Stri Sadana Training Home and the Vigilance Home which were till then Government aided institutions under the management of the Association.

Both these institutions are working under different sections of the Madras Suppression of Immoral Traffic Act which was passed in 1930 but amended several times subsequently to tackle the problem in an efficient manner. The Stri Sadana was started in 1936 by the Madras Vigilance Association with three inmates and the strength steadily grew until it reached nearly 150 when the institution was provincialised in 1948. Minor girls who were rescued from houses of ill-fame were committed to the Stri Sadana through the Juvenile Courts for a period from two to five years. At present there are only five girls who belong to this category in this Institution. In addition, destitute young girls who are in danger of going or have gone astray are admitted as preventive cases and unmarried mothers, destitute women above 30 years of age and women suffering from V.D. who seek protection are admitted as protective cases into the Stri Sadana with the permission of the Chief Inspector of Certified Schools. It is an undenominational institution. The poorest and the richest resort to it in times of difficulties. They come from the city and mufassal. Their ages vary from 15 to 25. Most of them come unhealthy and unlettered. The strength to-day is 64 plus one child. It is housed in No. 9, San Thome High Road, Madras.

Class in progress at the Stri Sadana



Starting of the Vigilance Home

The Vigilance Home was started in March 1948 as a result of an amendment to Section 12 (A) (1) of the Madras Suppression of Immoral Traffic Act called the Solicitation Section of the Act. It was chiefly through the efforts of Srimathi M. N. Clubwala and other members of the Madras Vigilance Association that this amendment was brought about, whereby women convicted for street solicitation should be sent to a workhouse, where they could learn a craft to earn their livelihood in an honourable manner and not to the Penitentiary as before. The Madras Vigilance Association started this Home as per Government orders in March 1948, but it was also taken over by Government when Government provincialised the entire Vigilance Service in the city and mufassal in May 1948. The strength of the Home to-day is 200 plus 7 children. It is housed in "Everest", Kutcheri Road, Mylapore, Madras.

The Higher Elementary School attached to the Stri Sadana was opened in 1940 and was recognised by the Director of Public Instruction in October 1941. This school has an industrial section attached to it and it caters to the needs of both the institutions. The School is well staffed with 12 qualified teachers. Charka spinning has been introduced into these institutions this year as per Government orders and a qualified spinning mistress is in charge of training the inmates in spinning.

The entire Vigilance Service, being an infant Government department, is attached to the Department of Certified Schools under the Chief Inspector of Certified Schools. The Provincial Vigilance Officer is the person directly in charge of these Institutions and is a Liaison Officer between the Superintendent and the Chief Inspector of Certified Schools. Both these institutions are at present under the charge of a Superintendent, who has two residential assistants, one in charge of Stri Sadana and the other in charge of the Vigilance Home. Under them, there are matrons and assistant matrons to be in charge of the inmates, night and day.

Medical Attendance

Government have sanctioned a dispensary for the Stri Sadana which serves both the Homes at present. A part time lady visiting doctor is in charge of it and under her there are a full time compounder and a nursing orderly. Minor cases are treated here, while serious cases are sent to the various hospitals. All the premier hospitals are giving free medical aid to our girls. All our girls are medically examined and treated and given bills of clean health before they leave the Institutions. There is a shelter annexe attached to the Home which enables us to segregate infectious cases temporarily.

Recreation and Pastime

The inmates of the Home, under the Perfect System and Court of Honour, are kept under discipline. Their leisure is well used at their various societies—music, dramatic, literary and games. Girls are given such recreation as is possible. Talks on normal health subjects are arranged periodically. All the Stri Sadana girls are sent to their respective houses of

worship once a week. In addition, the Stri Sadana girls are sent to places of interest on excursions and to good normal pictures. Under the Grow More Food Campaign—the inmates of both the institutions are taking keen interest in rearing vegetables and fruit gardens and I may pride myself in saying that they have succeeded fairly well in their amateur attempts.

Rehabilitation of the Reformed

In days gone by, the question of rehabilitation of these reformed rescued girls was a difficult problem. The doors of all the schools and hospitals were closed against these poor unfortunate victims to unavoidable circumstances. Rigid social customs looked down upon and condemned a girl who had been seduced by a man while the seducer was tolerated, nay, even respected by the public. What was an irrevocable sin in a girl was a natural weakness and human nature in a man! But thanks to our popular Government, orders have been lately passed not only throwing open the doors of schools, colleges and hospitals to our girls but also giving other preferential considerations to them. Taking advantage of these Government orders, many girls have gone for high school studies, teachers training course and midwifery course in hospitals.

Marriages Performed

We have found from experience that marriage is the best course for them. Government have sanctioned Rs. 150 towards the marriage of each girl in both the Homes for the purchase of clothes, jewels and vessels for the girl. We have performed 35 marriages during the past one and half years and among them, with the exception of two cases, all have been successful. They are, on the whole, leading very happy married lives and some have become proud mothers also. We do follow-up work also along with the Probation Officers. We have had very few cases of relapse so far. The girls who enter the Homes, unlettered, diseased, downcast and with despair written on their faces undergo a thorough transformation after a few years stay here and leave the Homes literate, healthy and with bright and hopeful outlook on life.

A Typical Case

A girl by name R. a native of B. was rescued from immoral surroundings and admitted into the Stri Sadana by a well-wisher. The girl was an illiterate, an orphan and a destitute. She was brought up by a neighbour who made her slog night and day in her house as a servant. For all her hard labour, she received only kicks and abuses. Many a time she wanted to end her life. But better sense prevailed and she thought that God should have created her for some good purpose. She left that house stealthily and wanted to try her luck elsewhere. She fell into the trap of an agent in immoral traffic, who won her confidence by sweet words. The girl became a victim to her devices. The woman sold her to a trafficker who began to trade on her against her wishes. The girl became fully diseased and she was thrown out into the streets as useless.

Sheltered in Stri Sadana

She was in a pitiable plight when a well-wisher met her and took her to Stri Sadana and admitted her. The girl, on admission, was questioned by the Superintendent. The girl could not help bursting out crying when narrating

her sad story. She was handed over by the Superintendent to the Chief Matron who gave her a bath at once. A set of new clothing and plate, mug and tumbler were given to her. The next day she was presented before the lady doctor who examined her and sent her to hospital for blood test. She was then admitted into the school where she learnt not only the three R's but also weaving, spinning, needlework, tailoring and handicrafts. She was also given training in cooking and kitchen work. She took a keen interest in gardening and participated in indigenous games such as kurumi, kolattam and dances. There was family worship both morning and evening and she learnt the practice of silent prayer. At night after dinner, she sat along with the other girls and did her studies diligently. She took treatment for venereal disease regularly in the hospital and was cured.

An Accomplished Housewife

In a few years' time, she completed her VIII Standard and became quite accomplished in needlework, weaving, spinning and other crafts. A respectable young man, well placed in life, belonging to her own caste and creed, came forward to marry her. She liked the offer and the marriage was settled. The marriage took place on an auspicious day in a moderately grand scale according to strict Hindu rites. The Chief Inspector was present on the occasion and blessed the married couple. The girl was given by the Government a grant of Rs. 150 towards the purchase of her requisites. Thus ended happily the life of a destitute girl who was admitted into the Stri Sadana as a human wreck with a chequered past.

Thus, an opportunity to save a girl, if lost will wreck her for ever, while at the same time, if love and care are bestowed on her at the right moments a miracle can be brought in her life converting her useless life into one of real value and blessing to herself and to those around her as is illustrated in the following few lines :—

Many a charred debris, rotting in the heart of the Earth
If not raked up, chiselled and polished in time,
Is destined to remain for ever an useless heap ;
But, with care and hard labour, can be converted
Into the most priceless diamonds in the world
With lustre and beauty beyond comparison.

One girl educated, reformed and cured will lead to the uplift of an entire family and the upbringing of healthy children who are the future citizens and the real wealth of the nation.

Groundnut Kernels

It has been brought to the notice of the Government that some merchants in North Arcot District are purchasing groundnut kernels at a low price by spreading false rumours to the effect that the price of groundnut kernels is going to be controlled. The only control that now exists in respect of the commodity is the control exercised by the Government of India over its exports to places outside the country. At present there is no control either in regard to prices or movements of the commodity within the country, nor is there any proposal before the Government to impose any such control. In the circumstances, the public are cautioned not to give credence to any rumours that may be set afloat by interested parties to the effect the Government propose to bring groundnut kernels under control.

Capital Expenditure of Madras State

By SRI T. A. VARGHESE, I.C.S., Secretary, Finance Department

The ordinary expenses of administration of the State, such as the cost of education, medical relief and other public amenities or of the preservation of law and order or of collecting the various items of taxation, are shown as Expenditure on Revenue account. It is the golden rule of Public Finance that the expenditure on Revenue Account must be fully covered by the receipts of the Government for the year. If this rule is violated, it would mean that the excess expenditure of a year would cut into the receipts of the succeeding year, causing a corresponding reduction in the resources available for that year.

Besides the expenditure on Revenue Account, which I have just mentioned, a modern State spends large sums on Capital expenditure. Capital may be defined as the money spent in building up a concrete asset of a permanent character and which gives the State a recurring income. The best illustration for this is the expenditure on a new irrigation project which confers a lasting benefit on the people owning lands under the Project, and also brings in additional revenue to the State as water rate. Similarly, the cost of an electricity project which helps the people and produces revenue to the Government is an item of Capital expenditure. The money spent on the abolition of Zamindaries may be treated as Capital expenditure, because the people derive a lasting benefit by this reform and the revenues of the Government are enhanced. Even the cost of constructing a large hospital building may be included in the Capital Account, because the building is a lasting asset of the Government.

Capital expenditure need not necessarily be found from the proceeds of taxation during the year, but can be met from funds borrowed from the public. The asset so built up is there as security for the loan and the interest charges can be met out of the extra revenues derived by the Government from the asset. All modern States endeavour to meet the large bulk of Capital expenditure out of the borrowed funds. This is but fair, because the present generation should not be called upon to bear the full burden of creating assets, the benefits from which will continue to be enjoyed by the succeeding generations.

Cost of Development Programme

During the post-war years, the Madras Government had planned, in common with other States and the Central Government, a vast programme of Capital expenditure. Even though many of these plans have failed to materialise and caused disappointment, our State has been able to launch a modest programme of Irrigation and Electricity development. The Irrigation side of it consists mainly of the Tungabhadra multi-purpose project, expected to bring under irrigation about 300,000 acres and to develop about 35,000 K.Ws. of power in the famine-ridden tracts of the Ceded Districts, the Lower Bhavani Project in the Coimbatore District, estimated to bring under irrigation 200,000 acres of cotton country, the Malappuzha Project in the Malabar District expected to protect against drought about 40,000 acres of paddy land, a few other medium-sized projects in other districts

and a multitude of small irrigation schemes. On the Electricity side, we have now under execution two new hydro-electric stations at Machkund and Moyar and we are also expanding the capacity of our existing stations at Papanasam, Pykara and Madras. When this programme is completed, the power generation of the State would be doubled and several new transmission lines would take the additional power, to new industries and interior villages.

Zamindari and Industrialisation

The total estimated cost of this Irrigation and Electricity Programme is about 75 crores of rupees of which we have so far invested about 25 crores of rupees. Another item of Capital expenditure, now under implementation, is the abolition of Zamindaries, which is expected to cost about 15 crores of rupees. Many of the major estates have been taken over already, after depositing the advance compensation fixed under the Act. In the Industrial field, the policy of the Government has been largely to aid private enterprise with capital, rather than start competing ventures. With this object, an Industrial Investment Corporation has been sponsored by this Government with a share capital of two crores of rupees of which 51 per cent has been taken by the Government.

We have also made a start in the nationalisation of public utilities like electricity distribution trade and motor transport. A gross amount of about 60 lakhs of rupees has been so far invested on the City Transport Service and further large sums will have to be invested when nationalisation is extended to the districts.

As I mentioned before, remunerative Capital expenditure is usually met from borrowed funds. We had embarked on the present programme of development, costing in all about 100 crores rupees in 1946 when conditions in the money market were easy. The tide has since turned and the money market has become very tight. Under the conditions now prevailing, we have to struggle hard to sustain the sanctioned programme. Of all the State Governments, the burden of Capital expenditure is by far the heaviest on this Government, because we have got to move on with our programme, before the money market has begun to shrink. During the financial year 1949-50, we have estimated to spend about 12 crores of rupees on this programme, towards which we were counting on a loan of six crores of rupees from the Government of India.

About last October, the India Government found their budgetary position extremely difficult and were compelled to withdraw the promised assistance. This decision placed us in a difficult position, because heavy commitments had already been undertaken. However, we persevered and managed to sustain the programme of the year without material curtailment. The large Capital deficit was met by various expedients such as enforcing economies in the Revenue Budget, drawing upon the opening cash balance and diverting accumulated credits under State trading schemes. The current year's budget provides for a capital expenditure of Rs. 15 crores.

Economies Effected after Review

The situation looked desperate at the beginning of the year, when the Government of India expressed their inability once again to assist us, and advocated slowing down of the programme. But most of the works in our programme are in an advanced stage of construction where any slowing down will cause considerable waste of materials, manpower and organisation. If some curtailment has to be accepted as unavoidable, it might as well be enforced on items of ordinary expenditure in the Revenue Account. Therefore, early in June, we reviewed our position and effected economies to the extent of Rs. 3 crores in the Budget, thereby releasing that sum towards productive Capital expenditure.

The Reserve Bank has just raised a loan for us and even though the Bank had advised us to go in only for Rs. 3 crores, we have, after considerable argument and through the assistance of the ryots of the Tirunelveli District, managed to raise the sum to about Rs. 4½ crores. The Bank has also negotiated the sale of our Securities held in the Revenue Reserve Fund, to the extent of about 4 crores of rupees. Even so, there is a gap of about Rs. 3 to 4 crores still to be covered. We are counting on the seasons being favourable this year, because in a year of good seasonal conditions, our Revenues usually exceed the budget estimates by a substantial sum. With God's grace, it does not therefore look impossible to keep alive our Capital programme during this difficult year.

Revenue Reserve Fund

In order to complete the Capital programme now on hand, we have to incur an expenditure of about Rs. 20 crores in each of the next two years. Judged by our present experience, the task looks formidable. And yet we should not despair, because in spite of very adverse conditions, we have survived last year, we have hopes of surviving this year and therefore, we might, with good luck, pull through the succeeding year at well. There are some points in our financial administration which makes this a not altogether forlorn hope. By the prudence with which we have been managing our affairs, we have accumulated a Revenue Reserve Fund of about 34 crores of rupees. This sum stands invested in securities, which would mature only on distant dates and therefore, cannot be had as ready cash at once. But it might just be possible for the Reserve Bank to sell securities in dribbles according to the capacity of the market to absorb them.

In our Revenue Account, we have to set aside every year certain sums towards the depreciation of the plant and machinery of our nationalised industries. Our Electricity Department alone contributes about 50 lakhs of rupees per year for this purpose. We have also to set apart certain sums annually towards the redemption of our public debt. All those amounts should normally be funded in easily negotiable securities. But in lean years, we may be justified in releasing these sums towards productive capital expenditure, by investing them not in fresh securities, but by transferring their equivalent from our holding in the Revenue Reserve Fund.

No Likelihood of Deficit

Again, in spite of the various expensive reforms which we have been implementing during the last few years, we

have managed to keep our ordinary Revenue expenditure well within our income. Even though we have invested over 26 crores of rupees in Capital schemes during the past four years, we had actually borrowed during this period only 13 crores of rupees, which means that the balance of about 13 crores of rupees came largely out of current revenue. There seems to be a common apprehension that Prohibition has eaten into our reserves. The financial year 1949-50 was the first full year in which Prohibition was enforced throughout the whole State. We did manage to balance our Revenue Budget for the year and what is more consoling, we were able to set aside about one crore of rupees towards Capital expenditure. Even this year, there is no likelihood of our running into a deficit in the Revenue Account. On the other hand, as already mentioned, we are hoping to save from current revenue, a substantial sum towards Capital expenditure, provided of course the seasons are kind.

In dealing with public finance, we should remember that the money not collected from the people, is not all lost to the nation. It remains with the people and can be got back from them by another form of taxation. The revenues given up by Prohibition have been more than made good from the proceeds of Commercial and other taxes. The only difference now is, that instead of a few unfortunate addicts shouldering this heavy taxation, the burden has been spread over the large mass of the common people. It can, no doubt, be argued that our position would have accepted so large an enhancement in other taxes, if the Revenue Budget had balanced otherwise. A well-thought out plan of small savings, whether voluntary or compulsory, could meet our Capital needs just as well and therefore, the present generation might justifiably demur to additional taxation on a large scale for meeting the cost of remunerative assets.

Lesson from Tirunelveli

If we continue to husband our resources, as we have been doing in the past, the task of completing the existing programmes may not be beyond us. But we have also to look ahead. Ours is an agricultural State. We have few mineral resources such as iron, oil or coal with which to build up heavy industries. Any appreciable improvement in our standard of living could come only from our efforts to harness our water resources. Only the State can play an active part in this field, because private enterprise cannot be expected to take kindly to long-term investments of this kind. The shortage of technical manpower has been eased appreciably by the larger number of engineering graduates, now coming out of our new colleges. The supply position in regard to building materials such as cement, steel and machinery is no longer as acute as it was three years ago. Thus after considerable concentration and effort, we have just geared up an executive machine capable of investing in productive use, about 15 to 20 crores of rupees per year. A dozen medium-sized irrigation schemes and a few useful hydro-electric schemes, are ready after investigation for administrative sanction.

For a State sadly short of food and motive power, the early execution of these schemes cannot be over-emphasised. But now we are up against a shrinking money market and we are being advised on high authority that no fresh Capital commitments should be undertaken.

It was in this context that the ryots of Tirunelveli came up with their offer to assist the Government with a loan of one crore of rupees towards the cost of the Manimuthar Irrigation Project. The offer was accepted and the ryots did manage to place with the Government one crore and 28 lakhs of rupees, as against the one crore promised. Some controversy has been raised about the manner in which and the source from where that money was raised. But in the heat of this argument, we should not miss the broad fact that the initiative for that drive came entirely from the ryots, and that they have enabled the hard pressed State to launch the Project immediately.

Even assuming that a good portion of the Tirunelveli collections came from financing agencies outside the District, we should not discount that endeavour, because under the existing economic system, there is no guarantee

that that money would have flown into productive channels, but for the efforts of the Tirunelveli ryots. That effort was the first of its kind in recent times, and anxious enquiries are being made of us by other States. Variations from that model can be made to remove the defects noticed and to make it suit other areas and purposes. As long as our political structure is not modelled on totalitarian or socialist lines, the State has no sure means of controlling the flow of capital towards productive enterprises. If our large development programme should be implemented, and that is the only way of improving our standard of life, we should arouse local support to individual schemes benefitting particular areas, more or less on the lines of the Tirunelveli experiment.

—By Courtesy, A.I.R., Madras.

Land Revenue Remission for Increasing Production of Cotton

India is seriously short in cotton which is the raw material for its largest single industry. The shortage has had very serious effects on the country's economy. At the instance of the Government of India a short-term plan has been drawn up for increasing the production of cotton during 1950-51 in this State. Among other inducements under this plan, the Government of India have decided that full remission of land revenue (excluding water rate) should be given on all additional lands brought under cotton cultivation in order to stimulate production of cotton. This concession will apply not only to fallow lands brought under cotton cultivation but also to all lands diverted to cotton both from food and non-food crops in the areas specified in the Annexure which are covered by the plan.

A cultivator will be entitled to the land revenue remission only when the total acreage sown by him with cotton exceeds his acreage under cotton during last year. If a cultivator so adjusts his crop plan that he puts exactly the same extent under cotton as last year, he will not be entitled to the remission although on account of rotational cropping the lands on which he has sown cotton this year may not be identical with that sown last year. The intention is that the exemption from payment of land revenue should be directly related to the increase in the area under cotton. The Board of Revenue has been asked to issue necessary instructions to the Revenue authorities to give effect to this concession. These details are published for the information of cultivators.

ANNEXURE.

Statement showing the areas where diversion of lands to cotton cultivation during 1950-51 will be eligible for land revenue remission.

Name of district (1)	Targetted area for diversion to cotton			
	Cumbodia variety		Karungannai variety	
	Irrigated (2)	Non- irrigated (3)	Irrigated (4)	Non- irrigated (5)
	ACRES.	ACRES.		ACRES.
Coimbatore	30,000	10,000	..	10,000
Salem	10,000	10,000	..	..
Madurai	5,000	20,000	..	..
Tiruchirappalli	5,000	..	..	..
Total	50,000	40,000	..	10,000

Grand total : One lakh acres.

Bird Watching

By LIEUT.-COL. R. W. BURTON, Indian Army (Retd.)

Some Southern Species

It is probable that the majority of cage-birds of urban and rural areas of South India will be from among the several species of Paroquet of Madras State, and of these the most common and at the same time the easiest to feed is the Rose-ringed Paroquet. Others are the large Ceylonese Paroquet, the Western Blossom-headed Paroquet, and the Blue-winged Paroquet. The Malabar Loriquet or "Love-Bird" is found on the slopes of the Nilgiris and other hills in groves, topes and thin forest. It nests in March and April in holes in trees, feeds on fruit and flower buds, and sleeps with the head hanging downwards like a bat, and the length is under six inches. The Rose-ringed Paroquet is over 16 inches in length, so needs a roomy cage; or it can be on an open air perch with a ring round its leg.

It is usually something out of the ordinary that attracts attention and may enhance value. An instance is the yellow or *lutino* type of the Rose-ringed Paroquet. Even forty years ago such freaks of this bird were sold in the Calcutta market for as much as eighty rupees a piece. Perfect *lutinos* of the species are somewhat rare and are extremely beautiful birds. The males retain the pink neck-ring and the bill is always red. May be this "freak," like that of the "white tiger" of the Rewa jungles, has a certain element of permanence in it, for a well-known authority of earlier days knew of a pair of normal coloured birds which always nested in the same tree and always produced a yellow brood. Naturally these were eagerly watched until fit to be taken. Here is a cottage industry which might be quite lucrative to the fortunate finder of a *lutino* producing Paroquet in the neighbourhood of his village!

The well-known Budgerigar is an exotic Loriquet which thrives and breeds in India, and elsewhere in many parts of the world. Escaped birds in India have been known to nest in the vicinity but not known to have become established. "Thank you for that" says the cultivator, "we have enough of these parrots already!"

Cages and Food

In some parts of India it is a custom to keep singing and talking birds in perpetual darkness by means of a cloth over the cage. That, surely, is a cruel practice with no real justification. Try it on yourself! Cages should be as large as can be managed, with water and food placed inside. Small mesh wire is a necessary precaution against snakes and house-shrews and the cage should be where the cat cannot get at it.

Soft-billed birds thrive on a gram flour made in a paste with ghee. In case of insectivorous birds this is supplemented by a daily ration of live maggots and grasshoppers. Where there are a number of bird fanciers, the breeding of the former and the collection of the latter can be arranged for a small payment to a bird-feeder who will call daily and supply all that is needed. For many cage-bird owners this may not be possible, so the children of the house or locality can be charged with the duty, which

In *Madras Information* (June 1950) something was said about protection of birds being so valuable in many respects to people of rural areas and the economy of the country.

In regard to power politics a well-informed public opinion is the world's greatest security. So also in regard to wild life, real and correctly informed interest on the part of the public is its greatest protection. Throughout the realm of Nature there are few creatures having an equal interest to birds. People of all ages and in most walks of life are attracted to them on account of their beauty of shape, colouring, charm of song and grace of movement. In these days of marvellous improvements in photography many of the hitherto hidden secrets of Nature have been disclosed by bird enthusiasts through use of rapid motion pictures; much has also been learned through patient observation in "hides" and the resulting photographs of birds on the nest and feeding their young.

Through colour films on the cinema screen and charmingly illustrated books, much that cannot fail to attract and create the needed interest towards the creation of a proper public opinion has been provided. That is the present need, the creation of a proper public opinion on the necessity for "Protecting our Birds."

Learning to Watch Birds

Through Bird-Watching many people derive great pleasure, learn to know birds and discover many interesting things about birds and other creatures also. One of the first things to realise is that a bird is curiously averse to being watched. Unless they see the human eye is on them they do not take much notice—but stand still and stare! That will at once cause alarm.

Should a bird hide or disappear, then a suitable place for one's own concealment has to be found. It is noticed that in Nature many creatures are protected through their pattern of colouring blending with their common background; so one's own design for concealment—clothing and adventitious aids by way of leaves, grass and so on—should be similarly designed. A person who keeps quietly concealed sees much denied to those who move about. Immobility is the protection used throughout Nature by all creatures from an elephant to an insect. In hunting animals stalking and still-hunting are arts to be acquired and bird-watching is an art akin to these.

Keeping Birds As Pets

In some western countries the caging of birds which are indigenously wild is prohibited, and there are many people who consider keeping of any wild creature in captivity is not justifiable. Some persons keep larks in cages. Certainly that savours of cruelty to a bird whose instinct it is to soar in the heavens and there pour out its sweet carolling song for all to hear. In eastern countries it is not practical politics to attempt any suggestion to non-caging of birds as pets; and so long as the cages are not unduly small and the birds properly fed and watered there is not much that can be said about it.

Bird Photography is a Fascinating Hobby

With many people bird photography has become a lifelong hobby. Some have made the pursuit a lucrative one, for there is a great demand for well illustrated and informative bird books both for older people and instruction of the young. Much can be done with quite inexpensive apparatus from a prepared 'hide' on land, or a slowly propelled camouflaged dugout on a weedy tank or waterway. On land it is very seldom that a satisfactory photograph can be obtained except through use of a carefully prepared 'hide'. It will be found that to walk about the countryside with even the best of reflex cameras is a waste of time and energy.

If a nest can be discovered in an exposed position, or affording sufficient light, and be also 'camera accessible', in that way a picture of nest with eggs can sometimes be obtained. Nests should not be tilted, for such pictures look unnatural, young ones should never be touched, and the less the contents and surroundings are interfered with the better, for meddling may lead to desertion which is a black mark against the photographer! Very occasionally a distant release by means of a non-elastic cord may prove satisfactory. The bird photographer is always learning and becomes full of ingenuities.

It is essential to study the actions and habits of the birds one wants to photograph; the lens has to be disguised by means of leaves or grass. It is only through long experience and many failures that the bird photographer attains success. An assistant is mostly always essential for help in many ways, not the least of which is to keep guard and warn off people, animals and even other birds. Apparently quite insignificant happenings can spoil a picture or ruin a carefully prepared opportunity. A small silently revolving stool is necessary in the 'hide', also a plate-changing bag. Many photographers prefer plates to films for work in the hide. Eggs of species such as lapwings, terns, nightjars which are laid in the open can be photographed without much trouble.

These few notes are designed to induce some amateur to take up a fascinating pursuit, and for those who are attracted the illustrated article, "Bird Photography in India" by Major R. S. P. Bates in Volume 40, No. 4 of the *Journal of the Bombay Natural History Society* will prove invaluable. Application can be made to the Honorary Secretary at 114 (6), Apollo Street, Bombay, and the cost, if available, will be about five rupees.

—Lieut.-Col. R. W. Burton, I.A. (Retd.)

is excellent training for them as inculcating a spirit of service and love for wild creatures.

Most species of birds have not many years of life, but there are some notable exceptions. There is an authenticated record of a Cockatoo attaining 62 years. Parrots have lived to 33, so Paroquets may also have fairly long lives. Eagles, Vultures, Kites, Hornbills, Cassowary, Ostrich have all exceeded 30 years in captivity and the Raven 24. Most birds, however, live for less than 14 years and some not more than eight to ten or less.

These Birds make Popular Pets

The first essential is to consider whether the feeding of the selected bird will present any difficulty. Babblers and Bulbuls are particularly suited for cages as they bear captivity remarkably well. The Laughing Thrush is a handsome and engaging bird and easy to feed; worms, insects, chopped meat, cheese are all acceptable to him. The Chloropsis or "Green Bulbul" is a common bird in the low country and a favourite cage-bird in parts of Madras State being, in captivity, almost entirely frugivorous in its diet. It is ornamental and a clever mimic. Several of the Bulbuls are fancied as pets. The Ceylon Red-rumped Bulbul is easily tamed and makes a charming pet if allowed to fly about the home at will. The breeding season is March to August and there may be two broods during this period.

Of the King Crow family the "Bhimraj" or Racket-tailed Drongo is a prime favourite but demands a large cage or its fine plumage will suffer. It is an accomplished

mimic and much sought after by those who can accommodate it. Among the Mynahs the common Hill Mynah, also known as the "Talking Mynah," is a great entertainer and will mimic many sounds. These birds are rather shortlived and should not be overfed.

The common Magpie-Robin is a good songster and mimic, while his cousin the well-known Shama, is extensively kept and has a splendid song. A Magpie-Robin has been known to pose himself in front of a looking-glass and "sing happily as if to his mate."

Canaries and Doves

The ubiquitous canary is a famed cage-bird and tends to displace some indigenous species in the affections of the people. Turtle Doves have to be mentioned, also several kinds of Pigeons among which are the Fruit Pigeons and Green Pigeons which thrive on any soft-fruit or vegetable food. Some of these birds have very melodious whistles.

The common Grey Partridge is often kept for fighting, as also are the migratory Grey Quail. The former can be frequently seen let loose for food and exercise running after the owner like a little dog.

Even the humble House Sparrow, if taken very early from the nest, can be tamed as a pet which will come to hand from the house top to be made much of and fed. Such pets are liable to fall victims to the voracious House Crow or the even more destructive Jungle Crow which seems in some parts to be ousting its smaller relative in urban areas.

The Spirit that Conquers

On the night of May 24, 1945, while Petty Officer Gopal Krishnan Unny was on duty at a naval establishment at Versova near Bombay, an accident happened which all but finished him. A tin of sulphuric acid fell on him, splashing against his face, neck and chest, searing his skin and furrowing through to his back. His face was burnt up, his right ear destroyed, his chin hung down on his chest. All four of his eyelids were burnt out, the sockets were deeply scarred, completely destroyed one eye and leaving only a faint perception of light in the other.

There was little left of Unny that could be of much use either to himself or to others. To-day, he has learnt Braille; is proficient in touch typing; has cultivated hobbies such as making things out of leather like bags, purses, etc., or out of plastic like earrings, powder bowls, etc., and more than all this, has passed the London Matriculation with credit in all subjects and has taken the Diploma in Public Administration of London University.

Triumph of the Spirit

Writing shortly after Unny took the Diploma, Sir Ian Fraser, Chairman of St. Dunstan's, said in a letter to the Indian High Commissioner:

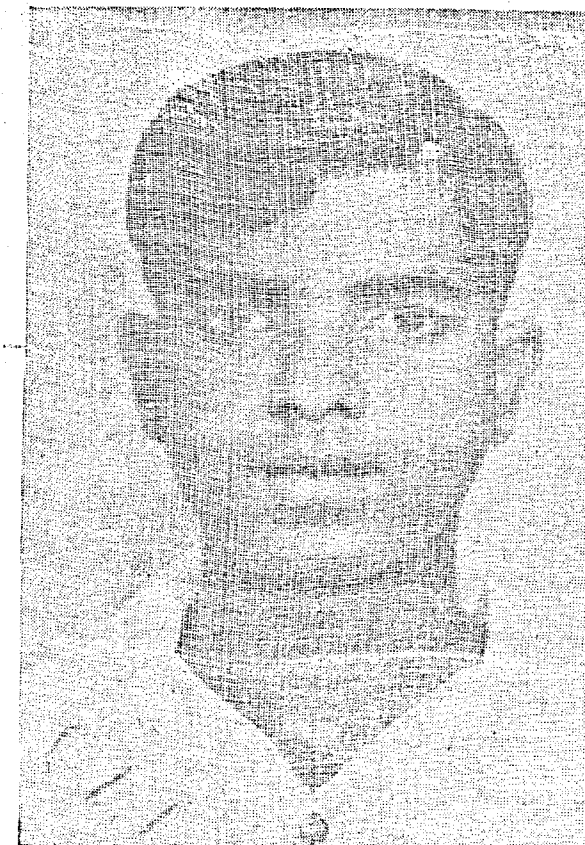
"This is a remarkable achievement for not only has this young blind man had to study for and sit for this very stiff Examination in English, which is not his native language but he has done his studying and successfully passed the Examination in one year, whereas the ordinary normal time taken for the Course is two years. I thought Your Excellency would like to know of this great achievement of your young countryman."

It has been a triumph of the spirit over cruel afflictions of the flesh, an affirmation of the will to live and to lead a full and useful life despite blows which would have disheartened a lesser man.

Others, of course, have helped to make Unny what he is. The Government of India helped by arranging for his free passage to England when it was found that adequate facilities for his treatment did not exist in India. Facilities were also found for the best available surgical treatment, much of which was given free. St. Dunstan's, the famous British institution for the blind, offered a home for Unny in England. It did more; it taught him Braille, typing and other trades, and provided him with a tutor and reader to prepare for his examinations. London University allowed him to appear for its Diploma as a private candidate. The Office of India's High Commissioner in London sent small gifts, so precious to an exile, of *supari*, cardamoms, pickles, etc.

Single Combat Against Misfortune

But in the main, it was a lone fight, a kind of single combat against grievous misfortune, fought with patience, courage and a singular cheerfulness of spirit. Everyone who has seen Unny during these years has testified to his fortitude; the matron and nurses at St. Dunstan's, the doctors, the official visitors from the High Commissioner's office, and indeed, everybody who has had anything to do with him.



Petty Officer G. K. Unny

No fewer than fifty operations were performed on Unny. His upper and lower eyelids were reconstructed by means of skin grafts; his nostril which had been twisted out of shape was shifted downwards; the scars on his cheek and neck were removed, and the area covered by a thin skin-graft. When the doctors came to the stage of building a new ear, however, they found that they had used up all the skin available from his body. They had therefore to fall back on the next best device of fitting up an artificial ear. Unny did not mind. "The doctors are trying to make me look handsome" he told a visitor, "but I know I cannot be handsome again." That remark was typical of the quiet humour with which he has borne all his afflictions.

Unny has now arrived at the last stage of his treatment. When the treatment began, the corner of each of his eyes had been heavily scarred, and the left eye had been damaged beyond repair. But there is still a hope that partial vision may be restored to the right eye by means of a corneal graft. Unny hopes to undergo this operation and be ready to return to India by the end of this year. The Government of India have enabled him to complete the treatment by deciding that he should be borne on the active establishment till the end of this period.

What the future holds for Unny, no one can yet say. What is certain is that whatever his lot, he will face it without flinching and will get the utmost out of it.

Tuberculosis in South India

By DR. K. VASUDEVA RAO, Deputy Surgeon-General, Madras

The incidence of Tuberculosis is much greater in India than in the Western countries. In our own State, the death rate is in the neighbourhood of 250 to 300 per 100,000, whereas in Western countries, the death rate is far below. For example, in New Zealand, the death rate is 23 per 100,000; in Denmark, about 30 per 100,000. On an average there is one death due to T.B. in every seven deaths. The deaths are mostly between the ages of 15 and 35, the period at which they are most useful. In the City of Madras, there are on an average about a thousand people dying every year from Tuberculosis. This is but a meagre estimate and a large number of deaths are wrongly reported as due to other diseases. In the whole State of Madras there are at least 15 to 20 thousand people dying every year from this disease alone, and for every patient that dies, he would have infected at least 10 people before death, with the result that there will at least be 150,000 people who are suffering from this disease. These require active treatment if we are to be safe.

Towards Prevention

The problem of prevention of Tuberculosis is a very great one which involves various aspects of reformation, both social and economic. It is rightly called a social disease, as our social environments have a marked effect on the incidence of this disease. The heading, 'prevention' includes conditions like better housing, better food, better economic conditions and better sanitation and public health. I am convinced that unless

A patient being X-rayed in the Mass X-ray Unit Van



the economic condition of the people is made better and starvation decreased as much as possible, there is very little chance of one eradicating this disease in this State. The question you may ask is why this disease is also rampant among well-to-do people in whom food is not wanting. The answer is this: Even when abundance of food is available, the quality of food taken is very poor or the surroundings of living are made unhealthy.

Precautionary Steps

The next factor will be education of the public on the vital problems of the disease. It should be made known to the public the various manifestations of this disease, how this disease could be cured and how the infection is to be combated and what precautions have to be taken to eradicate it in its early state, so that even the man in the street will understand what Tuberculosis is and take the necessary steps whenever any suspicion is entertained in his mind. For the most part it would be a wise thing to include an elementary principle of this disease in the curriculum of study of students in schools and colleges, so that they may have a fair idea of what the disease is and how it has to be combated. In addition to this, a certain amount of knowledge on dietetics as well as nutrition should be included in the curriculum so that, however poor a man may be, yet he should arrange his diet in such a way so that the greatest amount of value is received from the poor food that he can afford.

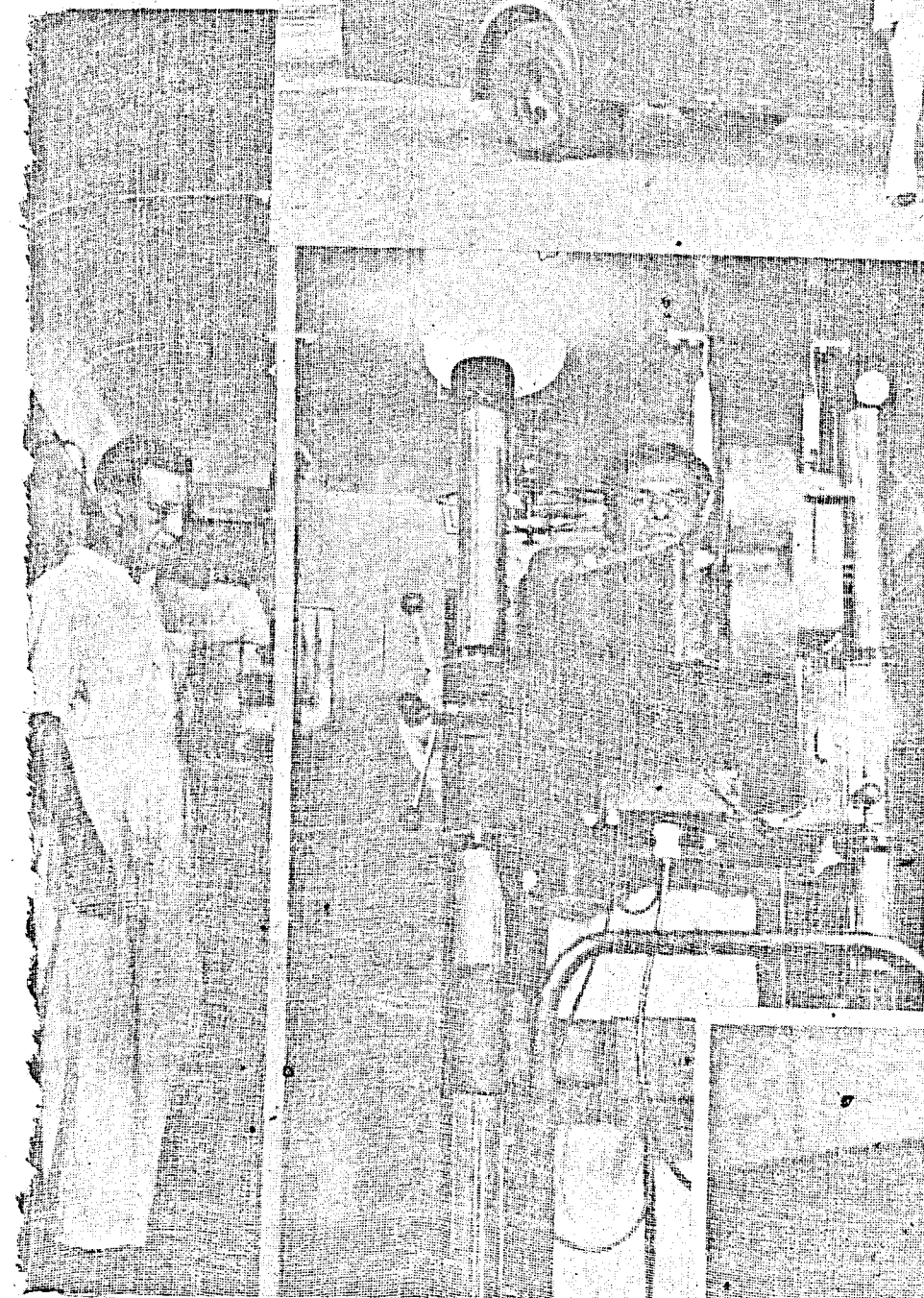
From this aspect various reforms have to be enforced. The poor people should be given better houses to live in. Better hygienic conditions must be afforded. As far as possible, cherais and other places should be remodelled, building model houses with all sanitary conveniences possible and the economic value of the average citizens must be increased. It is roughly calculated that for every man that dies in the prime of life, the State loses £ 1,700 (according to England). The amount of loss to the State is indeed very great when the death rate is also very great.

Curative Measures

From the curative point of view, various measures have to be taken for purposes of attaining the maximum benefit. The first and foremost in this connection is to increase the number of Tuberculosis dispensaries (Clinics). Such clinics must be the centres of anti-Tuberculosis work. It is from this place that correct diagnosis in its earliest stages long before any evident signs present should be made with the aid of all modern appliances. This should also be centre of sorting out cases like the post office so that cases that are suitable for hospitals must be sent over to the hospitals, cases that are suitable for sanatoria must be sent over to sanatoria and cases that are not suitable for either of these institutions may be treated at home by the dispensary doctor.

Examination of Family Contacts

In addition to this, the doctor must perform the essential duty of examining all persons that come in contact with cases of open Tuberculosis. This contact examination is one of the most important functions and a great step in any



MOBILE UNIT TO COMBAT T.B.

Top: A Mass X-Ray Unit van presented by the Madras Provincial Welfare Fund to the Tuberculosis Clinic, Madras.

Centre: An interior view of the Mass X-Ray Unit van showing the working of the X-Ray apparatus.

Bottom: Administering "air-injection" to a T.B. patient.



IRRIGATION

Lower Bhavani Project

The idea of constructing a dam across the Bhavani and storing all the flood water that finds its way to the sea, for irrigation during dry months of the year was thought of as early as in 1834 by Sir Arthur Cotton. Many partial investigations were since then made off and on and the scheme was given up every time due to various causes, the most predominant among them being the poor return on the capital outlay worked out on the basis of the money market then prevailing. But with the recent change of Government into a National one and the acuteness of food and cloth problems in the country, the necessity for carrying out a number of irrigation projects with a view to bringing under cultivation as much acreage as possible in the quickest time was realised.

The project as sanctioned provides for a reservoir of a capacity of about 27,000 m.e. ft. The dam will be located at a place 10 miles west of Satyamaugalam, at one of the originally selected three alternative sites, i.e., just below the infall of Moyar into the Bhavani. The country

is hilly at the site and geological investigations showed that the site selected was suitable though there was some controversy over the presence of Soap stone in the dam alignment as revealed by Calyx drilling in rock and cores. These were however found to be not so very serious veins. The site has since been inspected by Dr. Savage, the reputed American Designing Engineer, and by the Geologist of the Government of India and the foundations since opened up considered satisfactory.

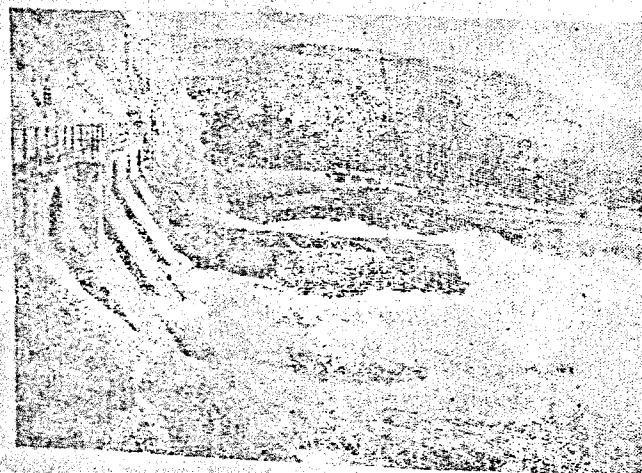
The project, on completion, will bring under irrigation an area of 207,000 acres, comprising 10,000 acres of rice, the remaining area divided equally between cotton and other irrigated food crops. The value of the produce grown will be easily Rs. 2.5 crores every year. The project, besides making a large quantity of foodgrains available for the Coimbatore district, will assure adequate supply of cotton to the large number of cotton mills round about Coimbatore. Thus the completion of the scheme will raise the economic standard of a large portion of the people of Coimbatore district.

Some Basic Facts

In the matter of irrigation works, the Province has a heavy history dating back to a period beyond 2,000 years. The main sources of irrigation are (1) Government canals, private channels, tanks, wells, etc., but of a cultivated area of 31.035 million acres, the irrigated extent covers 9.862 million acres. The irrigated area forms 31.82 per cent of the cultivated area and in this respect takes the first place in India barring the Punjab. The corresponding percentages for the other Provinces are 31.3 per cent for

United Provinces 6.5 per cent for Central Province, 30.5 per cent for Bihar, 4.9 per cent for Bombay, 43.8 per cent for the Punjab, 22.6 per cent for Assam, 25.9 per cent in Orissa and 20.5 per cent in West Bengal.

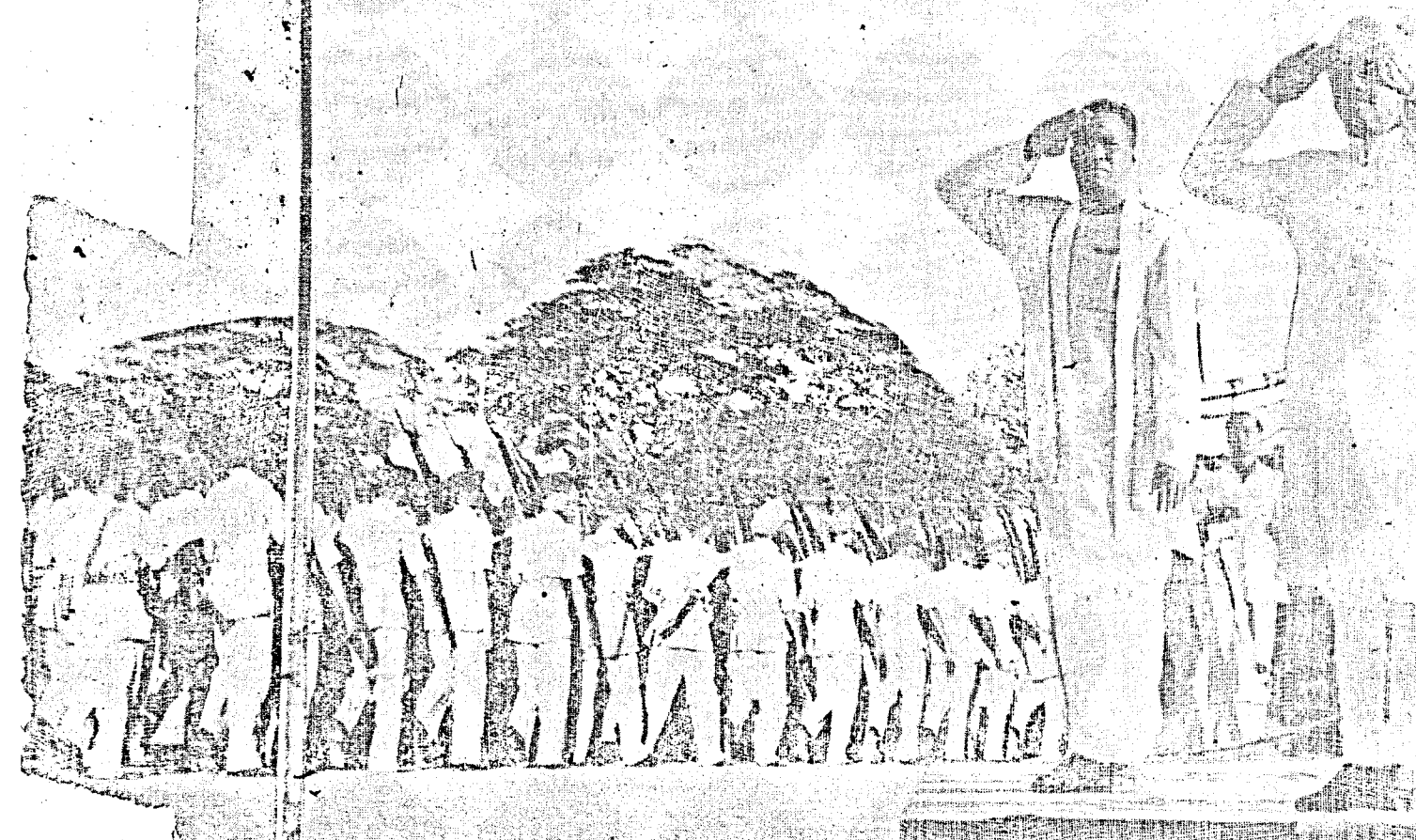
The Government has a huge Irrigation Programme consisting of four major irrigation schemes for areas over a lakh of acres, 21 middle-sized schemes for areas between 10,000 and 100,000 acres and a large number of small schemes each irrigating less than 10,000 acres.



A view of the Mettur Dam

1st inset page ➔

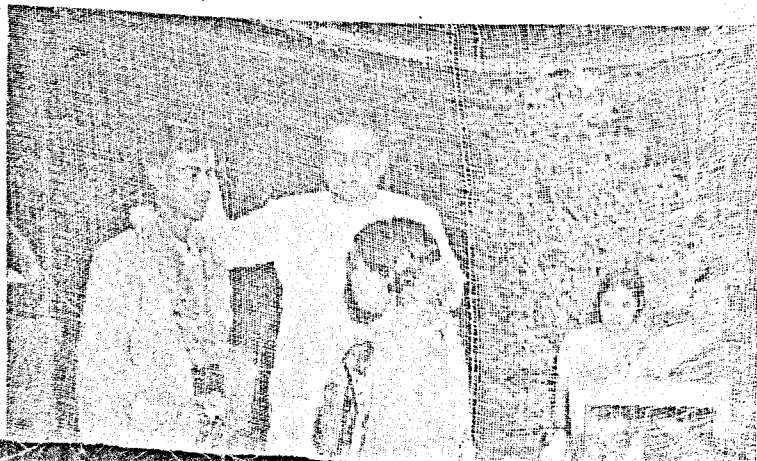
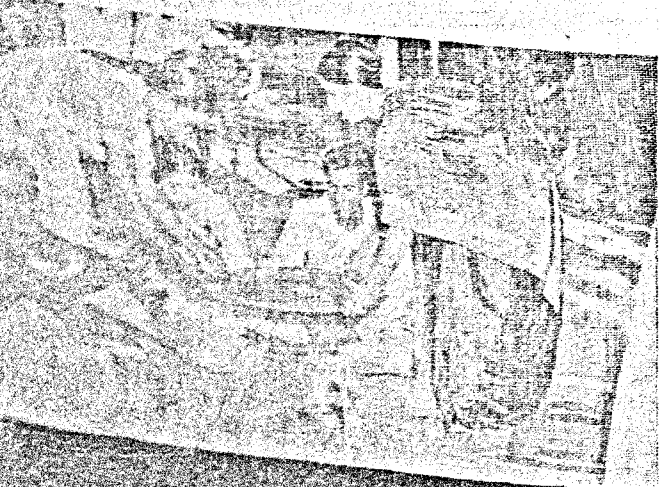
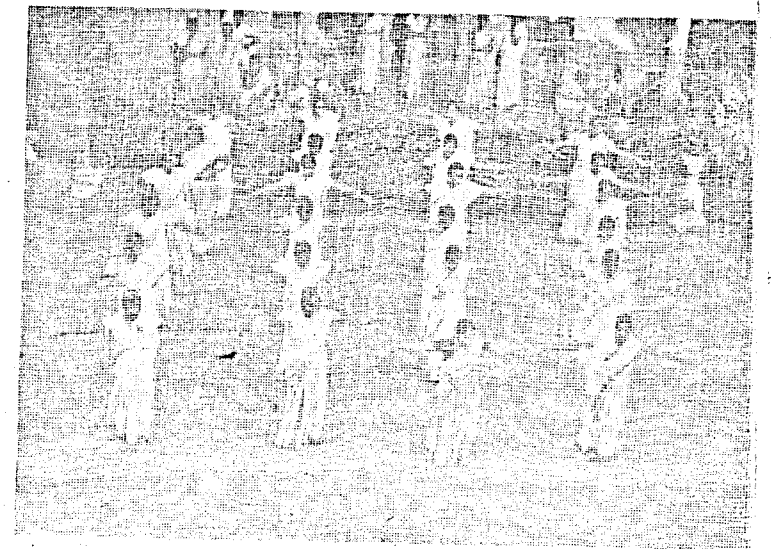
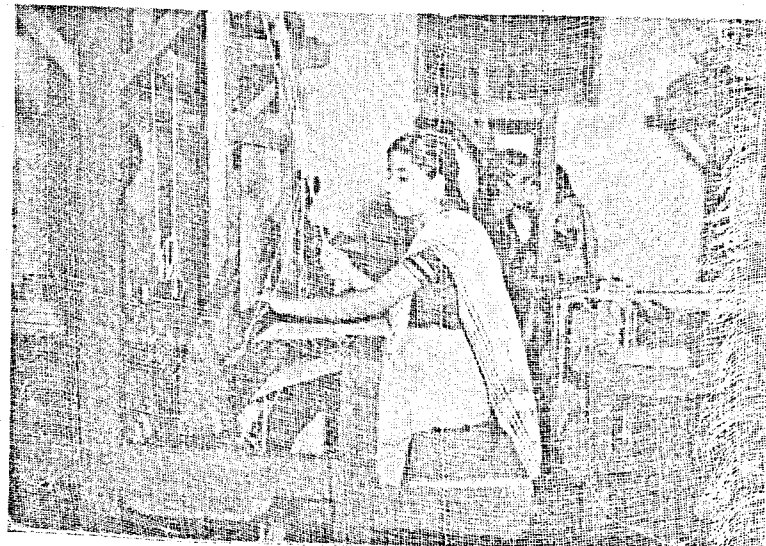
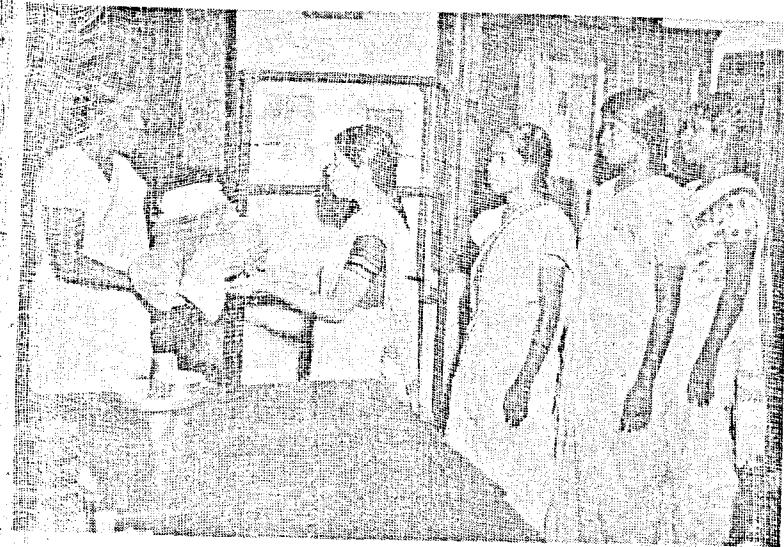
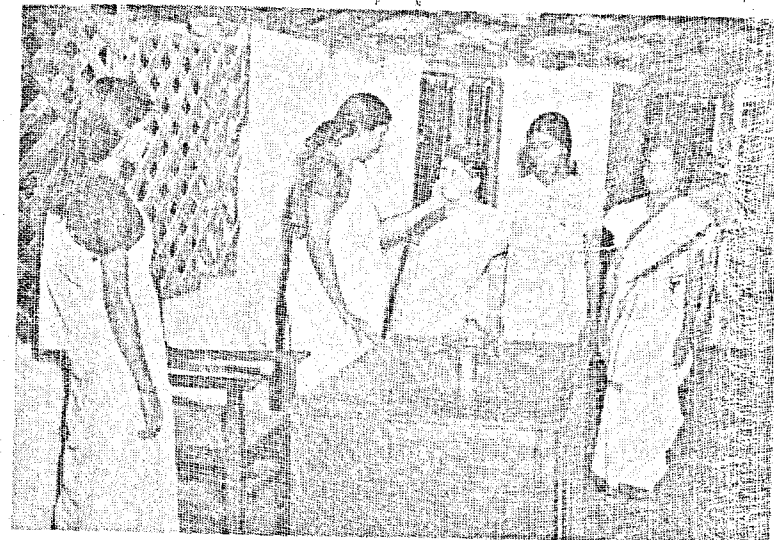
Republic Day celebrations in Madras. His Excellency the Governor and the Hon'ble Chief Minister taking the salute.



THE REBIRTH OF RADHA: RESCUE AND

RECLAMATION AT THE STRI SADANA

279



Strange circumstances enticed Radha from the straight and narrow path and she was led astray. Fortunately, smart Vigilance work brought her to the Stri Sadana Rescue Home. We now follow her subsequent career of recovery and reclamation in the pictures.

From left to right: Radha is brought in for admission and interviewed by the Superintendent, who listens with sympathy to her sad tale of woe. She is then medically examined, and given clothes, bedding and utensils. After her admission into the Home, her daily routine begins with morning prayers done in silent meditation.

After prayers Radha goes to learn the three Rs. She is also taught weaving, spinning and needlework, not to speak of kitchen training. In the evening she attends the drill class, designed to keep the girls hale and healthy.

Radha is now educated, skilled in handicrafts, trained in domestic duties. And a new life awaits her, for she is to be married. A suitable match is arranged, and as her friends perform the sacred arati, Radha looks forward to a new life of domestic felicity. The Chief Inspector of Schools blesses the happy couple after marriage, and a colourful dance follows as entertainment.

campaign against Tuberculosis. By this contact examination the whole family of an infected person will have to march past. The dispensary doctor makes a thorough examination of these contacts and lays his hands on any suspicious signs in any one of these contacts, because let it be understood that Tuberculosis is a curable disease and the earlier it is diagnosed, the greater the chance of complete recovery as well as shorter the period of stay in any institution. In addition to this, we should have an information bureau which should furnish to any person that goes to the dispensary any information on Tuberculosis. It should be possible that when these facilities are available, that medical students may have a very good grounding in this problem of Tuberculosis.

Accommodation of Patients

The second factor is provision of institution for accommodation of patients who are diagnosed to be suffering from Tuberculosis. Tuberculosis infection passes from person to person through the sputum which contains a large number of Tubercular Bacilli. Hence every open case should be isolated so that the chance of the open case being a source of infection may be got over. It is necessary, therefore, that for purposes of preventing further infection, care is taken of these cases. Hospitals are mostly intended for advanced diseases. They should be accommodated there till something happens to the patient, either he gets round or is dead and every effort should be made not to send the patient home during the last stage as this will be a source of great danger. Sanatoria are intended for the reception of early cases and cases that have a good chance of recovery. It is not possible to have as many beds as necessary. It is roughly calculated that there should be one bed for every death that takes place from Tuberculosis in the country. Calculated on this basis there should be at least 1,200 beds for the reception of Tuberculosis patients in the City of Madras alone, whereas we have only 300 beds.

After-care

The outcome of these institutions would be the accommodation of and looking after of patients who pass through these institutions and have regained their original health and are fit for living as citizens. This problem of after-care of patients that are discharged from institutions like hospitals and sanatoria forms the vital elements in any anti-Tuberculosis campaign, because many of these people will not be in a position to go to their homes for fear of relapse. Hence, they have to be kept under medical supervision for some time. It is therefore necessary that colonisation of these patients must follow as a step in the direction. When the hospitals and sanatoria discharge patients, there must be a colony to receive these discharged patients so that they may be put under continued medical supervision for some more time. In England they have such colonies, most famous of which are Papworth and Preston Hall in London, Victoria Colony at Liberton, Edinburgh and Attock in America. These colonies are practically small villages in which the patients are encouraged to live and they are allowed to get their wives and children so that they may live a family life. Model houses are built for these patients and small industrial enterprises like the boot-leather works, printing, farming, poultry, etc., are instituted for the benefit of these patients. They are paid wages and each inhabitant of these colony is under the direct supervision of the doctor. The amount of work and the amount of time for work are allotted by the doctor and on the

presence of the least signs of break-down, the patient is re-admitted into the hospital and treated. Many of these settlements or colonies are now self-supporting and probably some are making small profits in their manufactures.

Committee to Look After Families

It has been observed that a great majority of the people do not want to be diagnosed as Tuberculosis because of their losing their jobs. Occasionally it so happens in many cases that even though diagnosed as Tuberculosis the person concerned goes on working till he is physically unfit to work because of poverty. He is frightened that his family will be starving if he, the breadwinner, stops working and enters the hospital. Even if he enters the hospital, he frequently gets himself discharged the moment he sees a little improvement in him and goes back to work so that he may save his family from starvation. It has been my painful experience for the last several years to see cases who are in the road to recovery giving up the treatment the moment the slight improvement is seen and returning to their work and coming back to me a few months later in a hopeless condition. This is all due to the starvation that is entailed by the breadwinner of the family stopping from work. In such cases it must be the main function of the care committee to alleviate this suffering and to provide for the family when the breadwinner is in the hospital and is not capable of working. The committee should consist of ladies and gentlemen who have a certain amount of interest in social work and who can spare some hours a week for real work. These members of the committee should meet frequently. With the medical officer in charge of the dispensary and the health visitor, they should consider the case of all deserving patients brought to the notice of the committee by the health visitors and dispensary doctor. The members of

Interior of the Mass X-Ray Van showing the apparatus

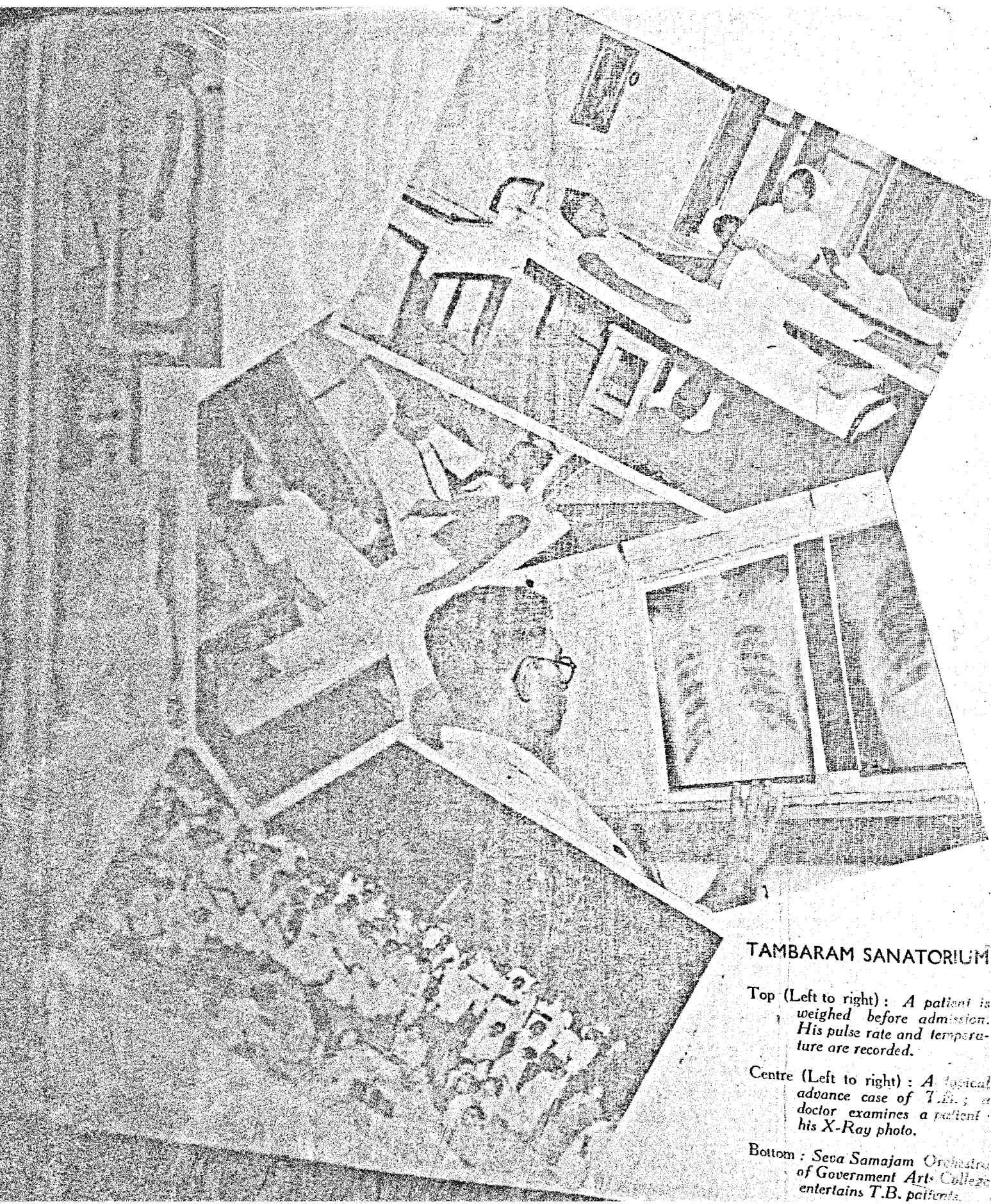


TAMBARAM SANATORIUM

Top (Left to right): A patient is weighed before admission. His pulse rate and temperature are recorded.

Centre (Left to right): A typical advance case of T.B.; a doctor examines a patient's X-Ray photo.

Bottom: Seta Samajam Orchestra of Government Art College entertains T.B. patients.



the committee should visit homes of these patients and encourage them by giving them good advice and also telling them the hygienic way of living.

Treatment Facilities

The facilities available for treatment of Tuberculosis in the State of Madras are as follows :—

There are 11 Tuberculosis Sanatoria in the Madras State, of which three are run by the Government :—

- (1) Tuberculosis Sanatorium, Tambaram.
- (2) Wellesley Tuberculosis Sanatorium, Bellary.

One by the Corporation of Madras, Konnur High Road, Perambur Barracks.

Three by the Missionary bodies, viz.,

- (1) Union Mission Tuberculosis Sanatorium, Arogyavaram.
- (2) Visranthipuram Tuberculosis Sanatorium, Rajahmundry.
- (3) Mount Rosary Tuberculosis Sanatorium, Moodbidre (South Kanara).

Two run by District Associations.

- (1) Coimbatore District Jubilee Tuberculosis Sanatorium, Perundurai.
- (2) Rajaji Tuberculosis Sanatorium, Tiruchirappalli.

One by the M. & S. M. Railway, viz., Tuberculosis Hospital, Pattabiram.

One Private Sanatorium, run by Dr. Santhosham situated 20 miles from Madras.

Location of the Sanatoria

The Tuberculosis Sanatorium, Tambaram, the Corporation Tuberculosis Hospital, Konnur High Road, Perambur Barracks, and one private centre are situated in and around Madras.

For the southern districts there are three Sanatoria, one at Coimbatore, the other at Tiruchirappalli and the third at Moodbidre (South Kanara). The total bed strength of these three institutions is 342.

For the northern districts, there is one at Rajahmundry with a bed strength of 170, one in the Ceded Districts in Bellary with a bed strength of 200 and one at Arogyavaram, Chittoor District, with a bed strength of 270.

The institution at Pattabiram run by the M. & S. M. Railway is solely intended for M. & S. M. employees all over the State.

A large number of schemes are under consideration for construction of sanatoria in different parts of the State. Foundation stones have been laid in three places, viz., (1) Periyaram, Malabar District, (2) Modishedde, South Kanara District and (3) Devakotta Road, Ramanathapuram District.

Melattur Gandhi Memorial Tuberculosis Sanatorium, Chengapattinam, Tanjore District, has begun to construct buildings and it is expected that the buildings would be completed early. In Nellore, the Government sanctioned the establishment of a Tuberculosis Hospital in Nellore, and the people of Nellore are trying to choose a spot. The idea of construction of a Tuberculosis Sanatorium at Madurai is rapidly gaining ground. They have collected a large sum of money. Nearly two lakhs of rupees are available with

the Provincial Welfare Fund, Madurai, and the Tuberculosis Association for this purpose. A site has been selected and plans and estimates are being prepared. Plans and estimates for the construction of a Tuberculosis Sanatorium at Pimpalli, Kurnool District are ready, but the work has not yet started.

The construction of a Tuberculosis Sanatorium at Waltair has not been completely decided upon by the Government. At present there are 51 beds available in the King George Hospital, Visakhapatnam, in the Tuberculosis Section. These beds are under the charge of a doctor with T.D.D. qualification; there are Tuberculosis beds in General Hospital.

B.C.G. Vaccine

The starting of the very large number of additional clinics, hospitals and sanatoria, requires a huge amount of money which the State cannot afford at present. Hence it is necessary that something must be done quickly and at a low cost at least to reduce the mortality from Tuberculosis. With this idea in view, the World Health Organisation has very kindly come forward to achieve this end by B.C.G. vaccination. As far as I am concerned, I am convinced that B.C.G. is not going to do any harm to the people. On the other hand it will do immense good and protects an individual when protection is most needed against this disease. It is no more in the experimental stage. The earlier the people are protected by this B.C.G. vaccination the better. At present there are three teams working in Madras—two teams sponsored by the Government of Madras and one team maintained by the Corporation of Madras. It is hoped that in the course of a few months, it may be possible to protect a large number of people below the age of 20.

—By Courtesy, A.I.R., Madras.

T.B. Clinic in Coimbatore Hospital

The Government have accepted with thanks the offer of Sri A. T. Devaraja Mudaliar, Coimbatore, to build a Tuberculosis Clinic in the Headquarters Hospital, Coimbatore, and provide a diagnostic X-ray screening outfit for the Clinic, and to hand over to the Government for maintenance. The Clinic will be named after the donor.

Enrolment of Advocates

The Government have directed that the Attorneys of the High Court seeking enrolment as Advocates be permitted to enrol themselves as advocates under the Indian Bar Council Act, 1926, without the payment of additional Stamp duty of Rs. 312-8-0.

Power Supply to South Kanara from Jog Falls

The Government have sanctioned a scheme at an estimated cost of Rs. 48-32 lakhs initially rising to Rs. 62-05 lakhs in ten years for the purchase of electric power from the Mysore Government at a point near Mysore border and the construction of 66 K.V. transmission lines therefrom to Coondapoor, Udipi and Mangalore for distribution of power in South Kanara District.

Corruption Among Government Servants

During the month of June 1950, corruption among Government servants was brought to notice against 333 persons including those against whom proceedings were pending at the end of the previous month. Of these, 23 persons were let off as charges against them were not proved and proceedings against 294 were pending at the end of the month. Corruption was successfully detected in the case of the remaining 16 persons and they were suitably punished. Of these, three persons were awarded minor punishments. The names and designations of the 13 persons who were awarded severe punishments are as follows :

I

CASES DEALT WITH BY THE TRIBUNAL.

A. Gazetted Officers.

Nil.

B. Non-Gazetted Officers.

Nil.

C. Inferior Servants.

1. Shaik Abdullah, Peon, Development Department—Dismissed.

II

CASES DEALT WITH BY THE DEPARTMENTAL AUTHORITIES.

A. Non-Gazetted Officers.

2. S. Vijayamaghavan, Checking Inspector, Transport Department—Service terminated.
3. V. Chandrashekar, Conductor, Transport Department—Service terminated.
4. D. Peters, Sub-Registrar, Madurai District—Dismissed.
5. K. Balaji Singh, Constable, Visakhapatnam South District—Dismissed.
6. Muthukumaraswami, Constable, Ramanathapuram District—Dismissed.
7. Sowrimuthu, Constable, Ramanathapuram District—Dismissed.
8. Marsalin, Constable, Ramanathapuram District—Dismissed.
9. Chokkalingam, Head Constable, Salem District—Dismissed.
10. Sheik Akbar, Head Constable, Salem District—Dismissed.
11. Ramamirtham, Head Constable, Tiruchirappalli District—Removed from service.

B. Inferior Servants.

12. Alagiriswamy, Messenger, Agriculture Department—Dismissed.
13. O. Adappam, Watchman, Agriculture Department—Dismissed.

Food Situation In Visakhapatnam

The Government have noticed a report entitled "Non-issue of Wheat in Visakhapatnam—Dealers 'Tutored' On Eve of Enquiry" in the *Mail*, dated September 17, 1950, in which it is alleged that "the circulars issued last month by the Civil Supply Office here, directing ration shop dealers not to issue wheat, were taken back from the dealers on the eve of enquiry into food position in the district by Mr. S. Meeran, Assistant Regional Food Commissioner, Madras State."

The Government wish to state that this allegation is not true, since no circular was ever issued by the Civil Supplies Office at Visakhapatnam, directing ration shop dealers not to issue wheat to cardholders. Hence the question of withdrawing the circular, referred to by the *Mail's* Correspondent, on the eve of the visit of the Regional Food Commissioner does not arise.

It is also stated in the Correspondent's report that he found from the accounts of the depot-keeper Sri Ch. Veerajulu that "no wheat was issued on August 28 and only

a few seers were issued on August 21." The entries in the registers of this shop show that actually on 28th August, 86 seers 13 chataks of wheat were sold to 49 cardholders from this depot and that there were eight bags, 85 seers of wheat in the ration depot on this date. On August 21, 35 seers of wheat were issued to 23 cardholders.

There is absolutely no basis for the allegation made by the Correspondent that the depot-keepers were 'tutored' by the Civil Supplies Officials. The Regional Food Commissioner visited Visakhapatnam on September 15, 1950, which was a Friday, a weekly holiday for ration shops. It was also Vinayaka Chaturthi Day and all the ration shops in the town were closed. The Regional Food Commissioner had, therefore, to send for a few ration depot-keepers at random to examine their accounts, stock position of the various foodgrains and their offtake during the different weeks.

It may also be stated that there is no Assistant Regional Food Commissioner by name S. Meeran as mentioned in the press report and that the shops were inspected by the Regional Food Commissioner, Mr. Mahabub Mian.

The Working Class in National Economy

By SRI H. SITARAMA REDDI, Minister for Labour

The working class all over the world has come to be recognised as a powerful factor not only in the shaping of the economic policies and programmes of the Governments but equally so in the field of politics. In the countries of Asia there has been a great awakening among the workers and they are asserting and demanding their just rights. All wise employers recognise to-day the need for cordial labour-management relations. Working class solidarity is necessary for good and effective relationship with the employers. A well-organised trade union movement is a necessary corollary for a well-knit workers' front. It is necessary that the trade union movement must be conducted in a spirit of service to the workers and not for their exploitation for party or personal ends. In many of the leading industrial countries of the world, the trade union movement is handled by those who have risen from among the working class.

Naturally, this leadership has a distinct advantage in that it will have a thorough knowledge of the trend and weakness of the various aspects of the workers' lives. Such a leadership is also of advantage to the employer in that he will have an experienced and sagacious party to negotiate with. We, in this country, may take some more time to achieve this state of affairs. But till workers are able to find such men as I referred to, the trade union movement will have to be associated with those that are interested in the workers' welfare and progress and have an intimate knowledge of their problems. The working class must avoid the leadership which exploits them for their personal or group advantage.

Strikes Affect Indian Economy

To-day the overall picture in India is not too bright. There is widespread misery over large parts of the country, due to flood, famine and earthquakes. Our planned economy for self-sufficiency has had a serious setback. Added to these unforeseen disasters, there are also difficulties of man's own making. Production, which is the crying need of the hour, still lags behind. Large-scale strikes in many parts of the country and under-production due to inefficiency, if not worse, continue to hamper economic progress.

The strike of textile workers in Bombay has caused great national loss. Not only the workers and the employers have lost heavily but the innocent is made to pay dearly for no fault of his. Our young Republic cannot afford to let production as it has been compelled to do by the Bombay strike. Such strikes make an already economically weak nation weaker. The other day I had occasion to read some news of the determination of the working class organisations in America and a few other countries to help their countries, in view of the deteriorating international situation to produce for defence purposes all that is necessary. The patriotism and the realisation of their country's

(Excerpt from the speech delivered by Sri H. Sitarama Reddi, Minister for Land Revenue and Labour, at the Tamil Nadu Indian National Trade Union Congress at Madurai.)

need has made them to come to this resolve. It cannot be said that the working class there have no grievances. Perhaps they have enough of their own. In national emergency priorities have to be determined with care.

Settling Disputes Peacefully

Unless it is an economically strong nation, there can be no economically strong working class or employer class. So, the first priority is to make our nation economically strong. Anything that stands in the way of the achievement of this ideal should be avoided. I would appeal to the working class and the employers to use more and more the machinery of conciliation and avoid lock-outs and strikes. There is a growing tendency among the employers of this State to resort to courts. I agree that every citizen has a right to utilise the machinery of the courts of justice. But I say that it is wrong to take advantage of the machinery of the courts of justice merely to delay the fulfilment of their obligations.

We in the South, no doubt, have been more successful in our labour relations. There is comparative peace in industry here. I do not know to whom the credit should go. The safe assumption is that the credit is due to all—the employers who have on the whole shown a sense of moderation and understanding and the workers who have shown discipline and a sense of realisation of realities and confidence in the Government labour machinery for conciliation and adjudication. May I also, without undue immodesty, claim some credit for Government? The endeavour of Government has always been to hold the balance even between the employers and employees and different interests among labour groups without leaning to any one side and to use conciliation wherever possible.

Aid to Law-abiding Citizens

Government will continue to pursue this policy. I know that in one or two instances persons have chosen to question Government's motives and its impartiality. I refer in particular to the decision of the Government some time back to grant a loan to the workers of the Meenakshi Mills. Let us just look at the situation from the public and the Government's point of view. There was a large-scale retrenchment which, in our opinion, was not justified. We did our best to conciliate and settle matters, but for sometime we were not successful.

In the meanwhile, over 3,000 workers were suffering untold hardships for want of work for over two months. They had run out of their resources and their accumulations in their savings funds were not available to them. What else could Government do under such circumstances? I say here boldly that Government would do again what they have done in the case of Sri Meenakshi Mills workers, if ever they are confronted with a similar situation. It only means that Government have been alive to their duty when a large mass of men have been put to acute distress through no fault of their own. The usual cry is that the Government is pro-capital. In this case we are being accused of being pro-labour. We are neither, but we are only anxious to help all law-abiding citizens to the best of our means.

Some Legislative Reforms

I would like to make a mention in passing to some of the far-reaching reforms that have been introduced in labour legislation in this country. The Industrial Disputes (Appellate Tribunals) Act, 1950, has recently been enacted by Parliament. This Act provides for the establishment of a Labour Appellate Tribunal. The Appellate Tribunal consists of persons of the status of High Court Judges and appeals will lie to the Tribunal from the awards and decisions of the Industrial Tribunal Courts, Wage Boards and other statutory bodies set up for adjudication of disputes.

Another important piece of legislation has been the amendment of Section 33 of the Industrial Disputes Act, 1947. By this amendment, the discharge or punishment whether by dismissal or otherwise of any workmen during the pendency of conciliation or adjudication proceedings without the express permission of the Conciliation Officer or the Tribunal is prohibited. Alteration of the conditions of service during the pendency of proceedings can be affected only with the permission of the Tribunal or the Conciliation Officer. Any money due from the employer under an award is recoverable as arrears of land revenue. The Tribunals have also been empowered to award costs. Further, the Select Committees on the two Labour Bills now before the Parliament are again consulting all concerned interests and that amendments are likely to be made that will make the Bills much more acceptable.

Work Under Minimum Wages Act

I may also mention here about the recent work done by this Government in connection with the Minimum Wages Act. Under the Act, State Governments are required to fix the minimum wages in respect of workers in 12 classes of employment and in agriculture. These classes of employment cover the most important fields of employment such as mica mines, tanneries, beedi factories, plantations, etc. Two courses are open to the Government in the matter of fixation of minimum wages in the scheduled employments. The Government may either appoint committees to advise them in the matter or publish their proposals straightaway and confirm them after consideration of the objections and suggestions of all concerned.

The Government have proposed to constitute committees only in respect of those employments for which reliable data are not available for publication as preliminary proposals. Reliable data were available in respect of four industries and preliminary rates have already been published in respect of those industries. Committees will shortly be constituted in respect of four classes of employment. The work of fixing the minimum wages in respect of all the scheduled employments is required to be completed before the 15th March 1951.

Fair Deal and Amicable Relations

The Madras Government are very much interested in securing not merely a fair deal for labour but equally in the full development of industry and in seeing that amicable relations exist between labour and the employers. They are spending nearly 18 lakhs of rupees on the Labour and Factories Department entrusted with the administration of the Labour Laws. For the early realisation of the country's objective, viz., the establishment of the Welfare State, production should be stepped up. This would be possible only when there is amity and proper

understanding and adjustment between labour and capital. The Government's endeavour is therefore directed mainly to achieve this objective.

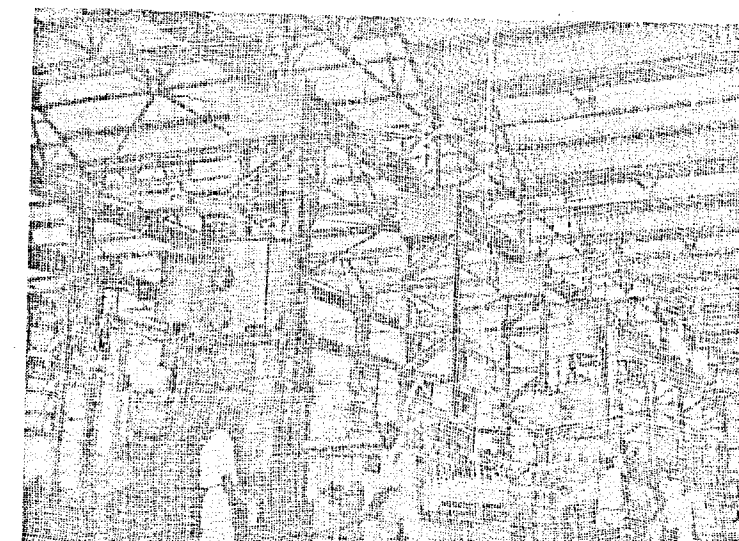
It is with this view that the Government have constituted Labour Advisory Boards on a tripartite basis, and have also been taking great pains to meet labour and industrial interests frequently at conferences and by receiving deputations so that Government can keep their finger on the pulse of labour-management relations. I am glad to say that we have been having the happiest contacts on these occasions and that considerable concord has been thereby achieved. We hope that all labour and industrial interests will continue to place their trust in the good faith of Government and use to the fullest extent our machinery for securing redress of their problems and difficulties.

Copyright in Government Publications

The Government have granted permission for the reproduction of statutory rules or orders, notifications and the like issued by them in the various State enactments subject to the condition that the source in every case is indicated and that there is no suggestion that the compilation in which such rules, orders, notifications and the like are published, is issued under the authority of the Government.

Copyright in Government publications vests in the Government under the provisions of the Indian Copyright Act, 1914, and any reproduction of work first published by the Government, without their consent, ordinarily constitutes an infringement of copyright; it is, however, considered desirable to grant permission in respect of the reproduction of State Government publications relating to statutory rules, orders, notifications and the like. In respect of all State Government publications other than those referred to above, specific permission should be sought for 'reproduction.'

Inside the smithy and forge shop at the Chittaranjan Locomotive Works. Chittaranjan in West Bengal was the scene of a historical ceremony, when the President, Dr. Rajendra Prasad, performed the Namkaran of Indian Railways' Locomotive Manufacturing Workshops, named after one of India's most illustrious sons, Chittaranjan, about 20 miles from Asansol on the E.I.R., was until recently a vast arid tract, but has now been transformed into a great industrial township, humming with activity with thousands of men at work, handling the most modern machinery.



The Madras Shops and Establishments Act, 1947

In the course of a recent broadcast, an official of the Labour Department, Government of Madras, listed the effective methods by which labour welfare work can be undertaken. "First, the State generally takes up welfare work through legislation in educational and social affairs. Secondly, the enlightened employers with wisdom, seek to provide voluntary conditions of work in respect of wage, living conditions, food and recreation than the minima which the law demands. Thirdly, the Trade Unions by their efforts can try to raise the standard of workers and secure material and social recognition for their people."*

Statutory welfare, which prescribes minimum standards for health, safety and comfort, is attained by legislation of Acts and administrative rules. But the promotion of the welfare of workers is essentially an employer-employee function, to be planned and implemented through mutual co-operation. In Madras State, the declared policy of the Government is thoroughly liberal in character, and their various enactments in force and prospective measures on the anvil, ensure that not only better conditions of work are secured and maintained, but also that the rights and privileges of the workers—men, women and children—are adequately protected. One such measure is the Madras Shops and Establishments Act of 1947, which regulates the conditions of work in shops and commercial establishments, restaurants, theatres and other establishments, and protects the interests of the staff and workmen employed in these institutions.

Notwithstanding the pace and scope of these social reforms, there would appear to be misgivings in certain sections from the labour ranks, that the Government are implementing provisions of the Shops Act with mental reservations to the disadvantage of the worker,—thus preventing effective operation of the Act. This is a wilful misunderstanding of the position; and this article, it is hoped, will help to refute this baseless aspersion by clarifying the peculiar provisions that govern the application of the Act.

Main Features of the Shops Act

It would perhaps be advisable to study here in brief the main features of the Act and the compass of its working. Prior to the passing of the Madras Shops and Establishments Act, 1947 (Madras Act XXXVI of 1947), there was no enactment in Madras State regulating the conditions of work of employees in shops, commercial establishments, restaurants, theatres or places of amusement or entertainment. The Weekly Holidays Act, 1942 (Central Act XVIII of 1942), brought into force in Madras State from January 1, 1943, was limited in scope, since it provided only for the grant of holidays and contained no provisions for such vital matters affecting workers as hours of work, payment of wages, health and safety.

The main features of the Madras Shops and Establishments Act, 1947 are:

It enables the Government to fix the opening and closing hours for the establishments. The sale of goods other than newspapers in or adjacent to a street or a public

place after the closing hour fixed for shops in that locality has been prohibited. The daily and weekly hours of work have been limited to 8 and 48 respectively. Work in excess of these limits should be paid at double the ordinary rate. Every employee should have rest interval of one hour after four hours work and his hours of work should not spread over more than 12 hours in a day. Provision has also been made as in the Weekly Holidays Act, 1942, for granting to the persons employed a compulsory holiday with pay for one day in a week and, if required by Government, an additional half holiday with pay in a week. It also requires that every shop should remain entirely closed on one day of the week.

Health, Holiday, Payment Secured

The employment of children—persons who have not completed 14 years of age—in establishments is prohibited. Persons who have completed 14 years but not 17 years should not be allowed to work before 6 a.m. or after 7 p.m. nor should they be allowed to work more than 7 hours a day or 42 hours a week.

Chapter V of the Act contains provisions for securing the health and safety of the persons employed. Chapter VI provides for the grant of annual holidays (12 days), sick leave (12 days) and casual leave 12 days in a year, all with pay. Sections 29 to 41 of the Act are intended to ensure prompt payment of wages and the prohibition of unauthorised deduction from wages and follow those of the Payment of Wages Act, 1936. Section 41 prevents discharge of employees with a continuous service of not less than six months except for a reasonable cause and provides a right of appeal against the discharge to the Commissioner of Workmen's Compensation. Existing rights and privileges which are more favourable than those conferred by the Act are protected under Section 51. Suitable penalties have been prescribed for contravention of the different provisions of the Act.

Scope and Compass of the Act

With effect from April 1, 1948, the Shops Act has been brought into force in the City of Madras, in all the Municipalities constituted under the District Municipalities Act, 1920, and in all the Panchayats constituted under the Madras Local Boards Act, 1920, which for the time being are classified by the State Government as Major Panchayats. It was specially extended to 17 industrial areas adjoining Municipalities with effect from June 15, 1948. It has also been extended to all the other Municipalities and Major Panchayats that were constituted after April 1, 1948.

The Government have sanctioned the appointment of 199 Assistant Inspectors of Labour specially for enforcing the provisions of this Act. The following Officers have also been appointed as Inspectors for purposes of this Act in their respective jurisdictions: Deputy Chief Inspector of Factories, Madras, Deputy Commissioner of Labour, Madras, Assistant Commissioner of Labour, Madras, Inspectors of Factories and Inspectresses of Factories, Labour Officers, District Health Officers, Assistant District

Health Officers, Municipal Health Officers, Health Officers and Assistant Health Officers of the Corporation of Madras.

The Shops Act provides for the granting of exemptions either permanently or for any specified period to any establishment or class of establishments or person or class of persons from all or any provision of the Act. Such exemptions are granted only after careful examination, and in many cases after consulting other States where similar legislation had been enacted and implemented. All these exemptions were given in the interests of public requirements; yet, at the same time, all care was taken to see that the interests of the employees were not affected. The Commissioner of Labour has also been granting conditional exemptions under Sections 6 and 52 in connexion with important fairs, festivals and exhibitions so that the people assembled there may not be inconvenienced.

Establishments granted Exemption

A brief survey of the exemptions granted so far will indicate that the Government have exercised in every case a scrupulous sense of equity, and that the decisions taken are fully warranted by the attendant circumstances. The exemption cases are given below, with the reason for the grant of exemption given within brackets in italics:

EXEMPTED FROM ALL SECTIONS: Advocates' chambers, doctors' consulting rooms, dispensaries attached to doctors' consulting rooms, nursing homes, hospitals and other institutions for the treatment or care of the sick, the infirm, the destitute or the mentally unfit (*Conditions of work are not suitable for regulation in these establishments*).

The Research Laboratory, Madras (*Treated as a dispensary attached to a doctor's consulting room*).

The Madras Electric Tramway, Limited, Madras, in respect of ticket clerks (*To ensure equality of treatment with other traffic staff*).

Offices of the Registered Accountants and Auditors (*Conditions of work are not suitable for regulation*).

Officers of air service companies operating in this State (*Treated on a par with a railway administration*).

All establishments whose activities are mainly educational and hostels attached to such establishments (*These are not profit seeking concerns. Conditions of work are in some respects more favourable than those prescribed in the Act*).

All establishments run by the Indian Coffee Board in the State of Madras (*Statutory body constituted under the Coffee Market Expansion Act, 1942. Not a profit seeking undertaking. Conditions of work are generally more favourable than those required by the Act*).

Martha Watts Boys' Home, Hindupur, Anantapur district (*Free boarding home conducted by the Ceylon and India General Mission for the benefit of poor orphan boys. Not a profit making concern*).

Accountants and the Chief Cashier of branches of all banks in the State of Madras (*Duties are similar to those of persons employed in the position of management*).

Offices of the Income Tax Practitioners (*Conditions of work are not suitable for regulation*).

Establishments of the Ceylon Emigration Commissioner and Ceylon Labour Commissioner (*Treated as establishments under the Central and State Governments*).

Offices of Agents of the Labour Department of the United Planters' Association of Southern India (*Conditions of work are not suitable for regulation*).

EXEMPTED FROM SECTION 11 (1).—All shops dealing mainly in vegetables, meat, fish, dairy products, bread or flowers in so far as the sale of these articles is concerned (*To avoid damage to perishable goods*).

All shops dealing mainly in medicines, surgical appliances, bandages or other medical requisites in so far as the sale of these articles is concerned. All petrol bunk, newspaper stalls in so far as the sale of newspapers is concerned. The hair-dressing saloon attached to the Connemara Hotel, Madras (*To ensure uninterrupted supply and service to the public*).

Refrigeration and air conditioning departments of the following companies: Messrs. Addison & Co., Ltd., Messrs. Richardson and Cruddas, Messrs. Beardsell & Co., Ltd., Messrs. Mohamed Ebrahim & Co., Ltd., Messrs. Spencer & Co., Ltd., Messrs. Binny & Co. (Madras), Ltd., Messrs. Gillanders Arbuthnot & Co., Ltd., Messrs. Gordon Woodroffe & Co. (Madras), Ltd., Messrs. Volkart Brothers (*To provide for the servicing of refrigerators and air conditioning apparatus at all times*).

All the shops in the area within the jurisdiction of the Tiruppur Panchayat on Krithigai day under the control of the local bodies (*To meet the requirements of the travelling public*).

All shops carrying on the business of funeral undertakers (*To ensure uninterrupted service*).

All shops in the State of Madras so far as receiving of goods into the shops is concerned (*To receive goods on the weekly closing day*).

All shops dealing mainly in aerated waters (*Same as establishments manufacturing ice*).

Premises No. 50, First Agraharam, Salem, in respect of business connected with the insurance agent (*It is a place where both job typing and insurance work are carried on. This exemption is necessary to enable the agent to attend to his insurance work on the weekly day*).

Shops where the work of tanning of raw skin and hides is carried on (*Tanning of raw skin and hides should be done on all days as it is a continuous process*).

Establishments of independent handloom weavers (*Weekly closure is not necessary as there is scarcity of yarn and slump in the handloom industry*).

EXEMPTED FROM SECTION 32 (1).—Messrs. Spencer & Co., Ltd., Madras, and their branches in respect of wages of persons employed (*To facilitate payment from the head offices at Madras to various branches in the State*).

Depots at Bellary and Coondapoor of Burmah Shell Oil Storage and Distributing Co., of India, Ltd., Bombay, in respect of wages of persons employed in the depots (*To facilitate payment from Bombay after verification of the pay rolls*).

EXEMPTED FROM SECTION 34.—Imperial Bank of India (*To enable the Bank to make deductions from the wages of the employees for contribution to 'pension fund'*).

EXEMPTED FROM SECTIONS 7 AND 11 (1).—Establishments engaged in the manufacture of ice (*To ensure uninterrupted supply to the hospitals and the public*).

EXEMPTED FROM SECTION 15.—All restaurants, eating houses and residential hotels (*Longer spreadover is considered necessary for the transaction of business in hotels.*)

EXEMPTED FROM SECTIONS 14 AND 15.—Scheduled Banks in the State for the half-yearly closing of accounts. Non-Scheduled banks in the State for the half-yearly closing of accounts. All commercial establishments in the State for the half-yearly and annual closing of accounts (*Longer hours of work are necessary for closing accounts in a short period.*)

All branches of the Imperial Bank of India in the State of Madras conducting Government transactions in respect of the last working day of each financial year. (*To enable the Bank to attend to Government transactions.*)

EXEMPTED FROM SECTION 14.—All insurance companies in the State for the half-yearly closing of accounts (*To cope with the rush of work incidental to the closing of accounts half-yearly and annually.*)

EXEMPTED FROM SECTIONS 14 (1) AND 15.—Messrs. Burmah Shell Oil Storage and Distributing Company of India, Limited, Madras, in respect of shipping clerks. (*To enable the Company arrange for the collection of necessary documents, etc., when ships arrive at odd hours.*)

EXEMPTED FROM SECTIONS 14, 15 AND 16 (1).—Messrs. Parry & Co., Ltd., Madras, in respect of persons employed in jaggery buying offices at Nidadavole, Tadepalligudem and Attili. (*Hours of work should be elastic to suit the hours at which wagons are made available by the Railway.*)

EXEMPTED FROM SECTIONS 7 AND 13.—The following shops and establishments—Petrol bunks; chemists and druggists shops; shops and restaurants situated within 100 yards of railway premises, bus-stands under the control of local bodies, theatres and places of public amusement or entertainment; shops situated within vegetable markets under the control of local bodies; motor transport undertakings; shipping departments of commercial establishments; departments engaged in recording transactions in day cash books in commercial establishments. (*To enable the establishments to be kept open at all time for the convenience of the public.*)

EXEMPTED FROM SECTION 13 (1).—The Mylapore Hindu Permanent Fund, Limited, Madras. (*To enable the fund to transact business at 7-30 a.m.*)

The Madras Government Servants Co-operative House Mortgage Bank, Limited, Gopalapuram, Madras. (*To enable the bank to transact business before 8 a.m.*)

Offices of the Combined Booking Agency in the district of South Kanara. (*Treated as a Motor Transport undertaking.*)

The Nungambakkam Saswatha Danarakshaka Nidhi, Limited, Madras. (*To enable the Nidhi to open its office for business at 7-30 a.m.*)

All Banks in the State of Madras for half-yearly and annual closing of accounts. (*To cope with the rush of work on these days.*)

All cinema theatres in respect of censor and trade shows. (*Hours and trade shows have necessarily to be exhibited outside the hours of exhibition to the public.*)

Electric Supply Corporation in the State of Madras. (*To ensure uninterrupted supply of electric energy to the public.*)

EXEMPTED FROM SECTION 9.—All dispensaries which are kept open during nights. (*To enable the public to obtain their urgent medical requirements during nights.*)

EXEMPTED FROM SECTION 7 (1).—Potato mundis situated within the limits of the Mettupalayam Municipality. (*To avoid damage to perishable goods.*)

EXEMPTED FROM SECTIONS 7 (1) AND 13 (1).—All shops and establishments situated in Nagore Town portion of the Nagore Municipality on Thursday nights (*To enable the establishments to be kept open till 12 midnight on every Thursday for the convenience of the public visiting the Dargah.*)

EXEMPTED FROM SECTIONS 7 AND 13.—Stalls and refreshment rooms situated in premises which are factories. Stalls and refreshment rooms wherein 500 or more workers are ordinarily employed and within a radius of 100 yards of any of the gates of such factories provided they are run by the management of the factory or by any association connected with the factory. (*For the convenience of the workers employed in the undertakings during nights.*)

EXEMPTED FROM SECTIONS 7 (1) AND 13 (1).—All establishments situated in the adivaram of the Palni Municipality, Mathurai District, on Krithigai days. (*For the convenience of the public attending the festival.*)

EXEMPTED FROM CHAPTERS II AND III.—All petrol bunks and storage depots for petrol and other petroleum products in the State of Madras. (*To ensure regular supply of petrol and petroleum products to consumers.*)

EXEMPTED FROM SECTIONS 7, 9, 10, 11 AND 47.—Shops dealing mainly in paddy in Tanjore District from January 15 to May 15 and September 15 to November 15 every year. (*It is considered necessary that there should be no restriction on establishments engaged in procurement and distribution of foodgrains.*)

EXEMPTED FROM SECTIONS 7 (1) AND 11 (1).—Shops situated inside the premises of theatres. (*To enable the shops to transact business during the hours when the public visit the theatres.*)

Persons Granted Exemption

The following persons are exempted from the various provisions of the Shops Act as indicated below. The reasons for such exemption is given within brackets in italics:—

EXEMPTED FROM SECTION 41.—Persons employed on contract for fixed periods. (*The employment of these persons is governed by a specific agreement between the parties.*)

EXEMPTED FROM SECTION 14 (2).—Employees in establishments other than shops. (*One hour rest interval is not necessary for this class of employees. It was therefore reduced to half an hour.*)

EXEMPTED FROM SECTION 15.—Sweepers and cleaners working in establishments other than in shops. (*The work of these classes of persons is usually outside the hours of work of the other employees and a longer spreadover is necessary for them.*)

Staff employed by the Anamalais Bus Transport Limited, Pollachi, in their bus-stands and booking offices. Staff employed by the City Transport, Limited, Coimbatore, in the bus-stands and booking offices. (*Longer spreadover was considered necessary in the case of employees in these establishments.*)

Staff employed in the restaurant and refreshment rooms by Messrs. Spencer & Co., Ltd., in railway stations (*Longer spreadover is necessary as the employees travel in trains.*)

EXEMPTED FROM SECTION 9 (2).—Employees in shops (*Same as for employees in establishments other than shops.*)

EXEMPTED FROM SECTIONS 14 (1) AND 15.—All persons engaged in entering and clearing ships, loading and landing cargo and attending to customs and port formalities in all ports (*Elasticity in the hours of work and spreadover is necessary for this class of employees.*)

EXEMPTED FROM CHAPTERS II AND III.—Watchmen (*The work of watchmen is similar to that of caretakers.*)

EXEMPTED FROM CHAPTERS II AND III EXCEPT SUB-SECTIONS (2) AND (6) OF SECTION 11 AND SUB-SECTION (1) AND (4) OF SECTIONS 18.—Messengers (*Their employment is mostly outside the establishments and their hours of work cannot be regulated.*)

EXEMPTED FROM SECTIONS 13 (1) AND 14.—Telephone operators of the Mudies Group, Office of the Bombay-Burmah Trading Corporation, Limited, Coimbatore (*To work the telephone exchange continuously throughout the day and night.*)

EXEMPTED FROM SECTION 14.—Fixed number of stenographers in commercial establishments in the State of Madras (*Their presence in the office beyond the specified hours of work is necessary to attend to urgent and confidential matters.*)

EXEMPTED FROM ALL SECTIONS.—Persons employed in factories in any kind of work (*They are governed by the Factories Act, 1948.*)

Interests of All Parties Considered

The rapid survey of the pertinent factors that led to the granting of total and partial exemptions from the Shops Act in general and specific cases, will make it clear that the Government have punctiliously considered the merits of each case with due regard to the interests of labour, management and the public in each instance and at every stage. It will be appreciated that no case can be made out to substantiate any charge that Government's policy of labour betterment has been shelved or forsaken to suit the needs of vested interests. On the other hand, it would be appropriate here to recall a significant observation made by the Chief Minister of Madras, Sri P. S. Kumaraswami Raja: "With regard to the various labour legislations of the recent past, it has been pointed out that while endeavour was being made by industrialists and the Government to ameliorate the conditions of labour, the response from labour has hitherto been halting and unsatisfactory. This is indeed very unfortunate, but let us hope that this is only a temporary phase in the human upheaval that is now taking place in the country."†

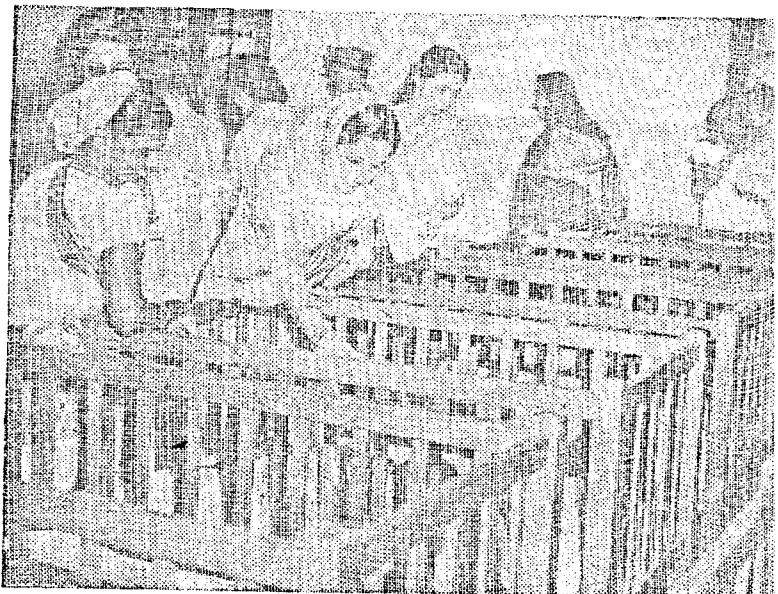
*Madras Information, October 1950, Page 28.

†Madras Information, August 1950, Page 4.

Rani Rajendrasinhji, wife of Lt. Gen. Maharaja Rajendrasinhji, Goc-in-C., Southern Command, paid a visit to the Seva Samajam Boys School, Adyar, during her visit to Madras. Picture shows the Rani Sahba inspecting one of the classes at the School (top).

Rani Rajendrasinhji meets the tiny tots in their cradles at the Broadway Creche (centre).

At the Victoria Technical Institute Rani Rajendrasinhji views some metal works of art (bottom).



Education and Training for Craftsmanship

By Janab S. A. Qadir, Regional Director, Resettlement and Employment

In modern times, education is very often looked upon not as an end in itself, but only as a means to an end. The conception of education for education's sake is apparently fading into the background. As the struggle for existence is becoming increasingly intense, education has in several cases become the inevitable means to employment. In the words of Willmott, "Education is the apprenticeship of life," more especially in the sphere of technical education. Herein lies the laudable aim of Training for Craftsmanship which has come to the forefront in the scheme of the National Employment Service in India.

With the advent of Independence, India is on the threshold of an industrial renaissance. This renaissance is just a sign of the things to come. If this renaissance is to result in progressive industrialisation, the crucial factors which govern industries should be provided for. It is said that just as the Three R's are indispensable to education, the Three M's, viz., Men, Money, and Materials, are indispensable to industrial progress. It is the primary responsibility of the capitalists to find the money and materials.

But the most important factor in industrialisation is manpower. The success of any establishment depends on the personnel employed therein. Money and material may be made available, but these two factors may suffer reverses, if not used properly by the right type of personnel. We are, therefore, confronted with the problem of finding the right type of personnel for employers. This is one of the problems before the Employment Service in India.

Importance of Manpower

Until the outbreak of the last war, the importance of manpower in this country was not fully realised. During the last war, mechanisation, coupled with scientific discoveries and developments, called for highly technical personnel to operate fine types of machines. The war effort, therefore, necessitated the training of thousands of technical personnel within a very short period. The Government of India took the necessary powers to regulate and direct the available technical personnel in the national interest, but the available supply was found to be woefully short of requirements. The Government, therefore, introduced a scheme for training war technicians. The course was short but intensive, and training was imparted at a large number of Training Centres opened throughout the country. This scheme remained in operation for about five years, and over 100,000 persons were trained.

In 1943, when the war situation had already taken a favourable turn, the Government of India in the Department of Labour set up an Advisory Committee on Technical Training to review the working of the war-time scheme and to make recommendations to adapt it to the peace-time needs of the country. The Committee, which consisted of representatives of Government, employers, workers and all other interests, recommended the introduction of the scheme for the systematic training of craftsmen on a national basis. This recommendation was subsequently

endorsed by the All India Council for Technical Education and the Scientific Manpower Committee.

Problems of Demobilisation

In 1945, when the war came to a close, most of the war establishments had to be closed. It was at this time that the enormous number of men who got themselves enlisted for combatant service had to be gradually released from the Forces. The Government, therefore, were confronted with the problem of resettling the ex-service personnel and also finding suitable jobs for workers. Some organisation had to shoulder this responsibility of resettlement and employment. While reviewing the position, Government felt that in accordance with the Convention of the International Labour Organisation, a National Employment Service should be set up in India. A resettlement programme was, therefore, undertaken and as many as 71 Employment Exchanges were opened all over India, including Pakistan.

As a matter of fact, the resettlement programme was preceded by arrangements made at the Demobilisation Centres where the Service personnel were given vocational and technical training for a short period prior to their demobilisation. The idea implied in this was that, as and when the men came back to civil life, they should be in a position to fit into the scheme of things, find their feet and make a living. But unfortunately, this did not meet with the desired effect for certain reasons. The ex-servicemen and women who were used to a kind of life and service in the Forces could not adapt themselves to the civilian environment. This is by no means an aspersion on the ex-service personnel.

Post-war Psychology

If we examine the post-war psychology not only in this country, but also in the West, it is evident that all ex-service personnel were labouring under this difficulty at the close of the World War II. Therefore, it meant that some arrangements should be made to initiate them into the civilian environment. They had to acquire a fair degree of skill in the employability had to be increased. This resulted in the Government of India opening Training Centres for ex-servicemen and women in several technical and vocational trades. Persons with some background knowledge of the trade were selected and trained free in the trades of their choice. They were given free board and lodging besides stipends.

So far as Madras State is concerned, we had 32 Technical Training Centres and 15 Vocational Training Centres where as many as 9,745 ex-servicemen and 323 women received the benefit of training in engineering and vocational trades as such blacksmithy, carpentry, general mechanic, electrician, radio mechanic, instrument mechanic, turner and machinist, weaving, cutting and tailoring, knitting, toy-making, etc., etc. Besides vocational and technical training, apprenticeship training was given to 540 ex-service personnel in 40 centres. During the period of training under apprenticeship, every trainee was given the benefit of a stipend

besides free board and lodging. The programme was continued till June 1950, when the Scheme came to an end.

Adult Civilian Training Scheme

The efficient distribution of manpower among the various sectors of national economy and the maximum utilisation of productive resources so as to provide full employment are inextricably bound up with the training of manpower. The Advisory Committee on Technical Training, which was set up by the Labour Department of the Government of India in 1944, expressed the fear that "the paucity of skilled craftsmen may well prove to be the bottleneck in the future development of industry in India." It is obvious that training has become such an important factor in the industrialisation of our country that it is essential that it should be imparted and regulated on a national basis. In order, therefore, to give a fillip to the progress of industrialisation and to make available to employers the requisite skilled technical personnel, the Government of India have undertaken the Adult Civilian Training Scheme.

The objects of the scheme are:

- (1) To ensure a steady supply of skilled workers,
- (2) To raise the quality and quantity of production,
- (3) To reduce unemployment amongst educated young men.

Two important features of the scheme are that it aims at imparting intensive practical training to young men and that it provides for a scholarship of Rs. 25 to fifty per cent of the trainees. Training is free and free workshop clothing is supplied once in four months to those who work near moving machinery. Free facilities for recreation and medical aid and free hostel accommodation are also provided wherever available.

Technical and Vocational

The scheme envisages two types of training, viz., technical training in important engineering and building trades and vocational training in cottage industries. The duration of training in technical trades will be eighteen months and that in vocational trades one year. The scheme also provides for a six-month apprenticeship in technical trades. At the close of the training, an examination will be conducted by a Board of Examiners and successful candidates awarded the National Certificate in Craftsmanship which will go a long way in helping the trainees to increase their employability.

Candidates for selection should ordinarily be between 18 to 25 years and should have studied up to two standards below the Matriculation or its equivalent except for certain trades like Draughtsmen Mechanical, Draughtsmen Civil, Radio Mechanic, etc., for which the minimum qualification is Matriculation or its equivalent. Separate Selection Committees have been constituted for the different States and almost all the available seats in the Training Centres filled. These centres include the Government of India Industrial Training Institutes at (1) Kakinada, (2) Anantapur and (3) Madras; the Madras Government Polytechnics at (1) Vuyyur, (2) Madras, (3) Madhurai, (4) Coimbatore and (5) Mangalore; the Ex-Servicemen Co-operative Society, the Strathie Engineering Workshop, Madras, and the Women's Welfare Training Centre, Madras.

National Standard of Skill

As regards the quality of training, the Committee appointed by the Government in 1944 found that even the larger and better organised workshops in India had no arrangements for systematic training and that the technical training institutions set up by Provincial Governments fell short of requirements. The Committee, therefore, recommended that a Central Institute for the training of instructors should be set up. Unless vocational and technical institutions turning out skilled workers were manned by competent and trained instructors, the right type of men would not be made available to industry. Therefore, the Government of India set up in 1949 an Institute at Koni, near Bilaspur in Madhya Pradesh, for the training of instructors. This Institute is designed to serve the needs of the Central and State Governments as well as of private employers. It provides training in both technical and vocational trades.

The importance of this Central Institute will be recognised by all who are interested in the uniform development of industry throughout the country. It will not be economical for the States to make their own arrangements for such training. Furthermore, the Central Institute will promote uniformity of standards, which is so essential to the training of craftsmen on a large scale and within a short time. The evolving of a uniform national standard of skill to be acquired by craftsmen is considered absolutely essential. The reasons are that (a) such a uniform standard will facilitate mobility of labour from one area to another, and (b) ultimately, it will help to introduce a National Diploma of Craftsmanship for industry, which will be recognised all over the country. This Institute has made a steady progress and up to the end of June 1950, it had turned out 317 instructors.

Training the Instructors

Admissions to the Central Training Institute had been, in the first instance, confined to instructors deputed by the Labour Ministry of the Government of India and by the State Governments. In order, however, that considerations of cost may not deny the benefit of the training to an increasing number of State Government nominees and to private candidates, in July 1950 training which was free to the Central Government's nominees was declared free also to State Government nominees. The institution was thrown open to instructors from private industry as well and also those applying direct. The fee for training was fixed at a nominal amount of Rs. 10 per head in the case of private industry and Rs. 15 in the case of private candidates applying direct for admission.

The training of women as a means of making them economically self-reliant has not been ignored by the Government. The Government of India have since, with the concurrence of the Madras Government, opened a separate training centre for the training of women at Madras. It is under the management of the Women's Welfare Department which is responsible to the Government of India for training. The required staff, equipment, charges incurred for training and also hostel accommodation, etc., are provided by the Government. About 60 girls are undergoing training in tailoring, weaving of saree borders, etc., and the manufacture of glass beads.

Orderly Harnessing of Manpower

It was Wendell Phillips, a leading educationist, who said that "the best education in the world is that got by

struggling to get a living." This statement is pregnant with meaning. The struggle for existence seems to be the greatest problem of mankind. That problem can be faced squarely, only when human resources and faculties are brought within the orbit of training. Training disciplines faculties and develops potentialities. Training ensures the orderly harnessing of manpower to industries. Training renders factory organisation smooth and personnel administration easy. Training affords scope for increasing efficiency and speed. In short, training is the keynote of success of any industrial enterprise, and therefore, its importance cannot be over-emphasised.

In the first place, it helps workers to choose occupations which are most suitable to them. We are aware that boys and girls who come out of schools and colleges grope in the dark in choosing a career for want of proper vocational guidance. They are not adequately informed of the prospects and possibilities that await them. Except for certain popular vocations for which hundreds crowd up in queues, we do not see much of a variety of vocations. In fact, the young men and women who come out of educational institutions choose careers more by force of circumstances than by deliberation. This indeed is an unfortunate state of affairs. The only way to deal with the situation is to assess the aptitudes, the physical and mental capacities of the youth so that they may be trained

in such trades and vocations as would enable them to find suitable jobs.

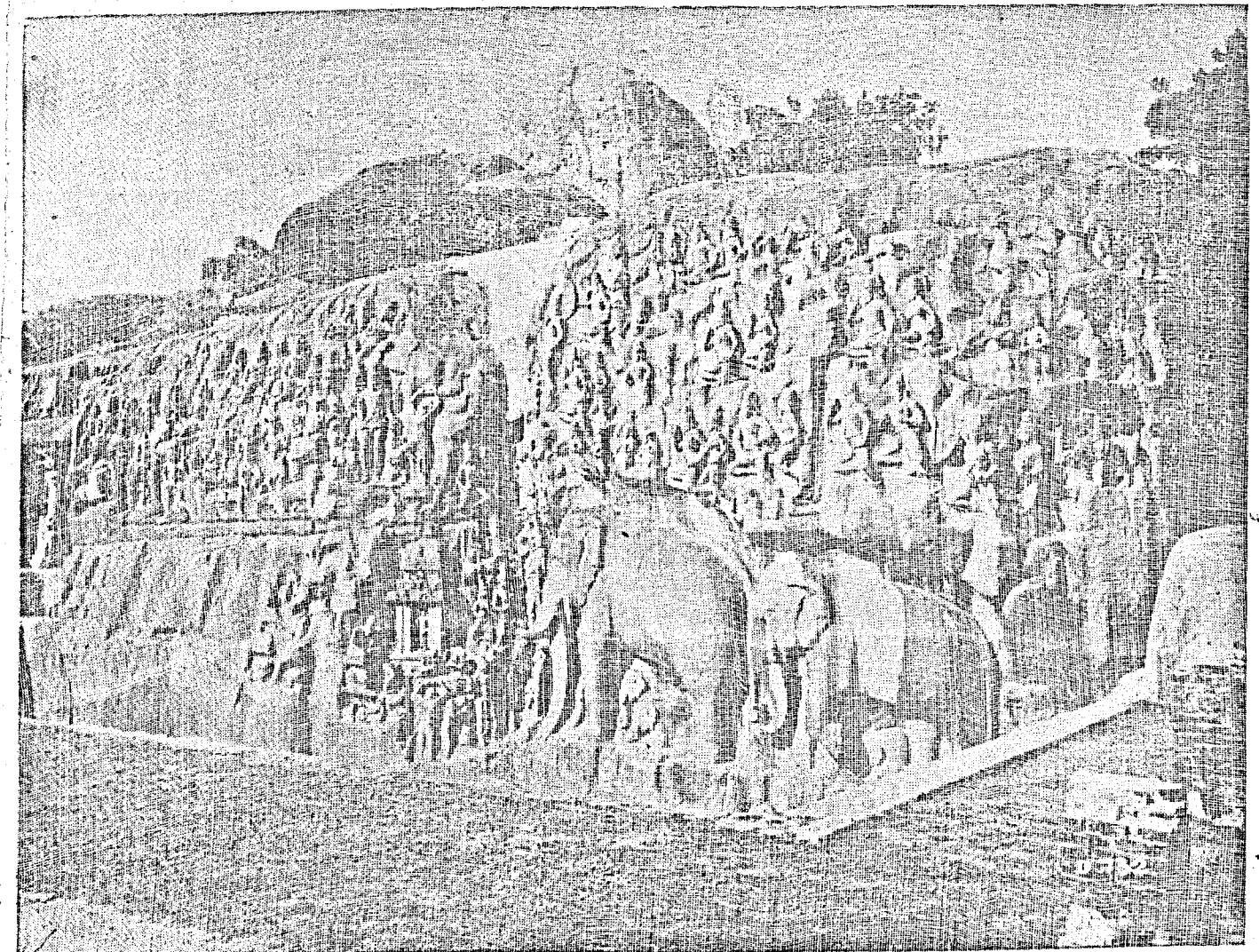
Secondly, it facilitates the classification of personnel under correct occupations. In the absence of a training scheme, everyone thinks that he is a factotum or a jack of all trades. Classification of personnel facilitates job analysis and division of labour which is very essential for personnel management.

Aim of Efficient Service

Above all, training paves the way for more efficient service in every sphere of life. The standard of efficiency in our country is subject to carping criticisms as though efficiency is an impossibility in our country. This is contrary to history. If we go back to the early centuries, our country was producing goods which were novelties to the West. Our craftsmanship has been highly commended. Fine arts were the treasures of India. But unfortunately, Indian craftsmanship could not keep pace with modern developments, since facilities for training were lacking in this country.

Our present programme which aims at improving craftsmanship will undoubtedly help our country to recover from the setback. There is so much to attain and so much to hope for that given the facilities our youth who avail themselves of the benefit of training will contribute the most to the industrial progress of our country.

In the International Anti-Tuberculosis Campaign, Dr. Fleming Lund of the United Nations Organisation visited Madras in connection with the B.C.G. Vaccination Campaign



East view of Arjuna's penance, a striking bas-relief at Mahabalipuram, in Chingleput District

Pandava Tradition in Southern India

By SRI V. SRINIVASAN

Mahabalipuram is reputed for a sculptured bas-relief depicting the penance of Arjuna for obtaining some arms from Indra, and for the Dharmaraja Ratha in the Pallava group of monoliths standing nearby. These relics and the other structures that are submerged in the sea are known even in distant lands through the reference to them in "The curse of Kehama" (1810) written by the English poet, Robert Southey. Interesting as are these links with the age of the Mahabharata, standing so far away from Indraprastha and Hastinapura, there are others, besides, in Southern India.

The bas-relief of Mahabalipuram is not the only memorial of Arjuna's efforts to secure arms. Tradition has it that the Gandivathirtham in Udayarpalayam in which there are said to be no frogs, was dug by him to induce Siva

to give him the special missile which he coveted and the shepherds of Esamalai near Perambalur, it is said, often see the bow of Arjuna rise from the ground and return to the earth with a metallic clang.

Bhima's Pool

The Udayarpalayam tank also brings to our mind, a pool which Bhima is said to have made in Arakandanallor using a club clipped out of a hillock nearby. A shrine in the vicinity is considered to be the handiwork of the Pandavas and Bhima is said to have also founded the Siva temple at Tirumalavadi.

In the old Viksharanya forest which is identified with modern Tiruvallur, the Pandavas, on another occasion, caused a well to spring by praying to Siva and thus

quenched their thirst. The princes are said to have also lived for sometime in Aivargudi in Vriddhachalam Taluk where they erected some *lingams* too.

The story of their arms is, however, incomplete without a reference to the notion held in many parts of Southern India that the Pandavas concealed their arms in a *Vanni* or *Sami* tree and that the weapons turned into snakes and remained so till they returned to take them. This is of interest to students of folk-lore about tree-worship and snakes.

Held in Special Reverence

The incidents referred to relate to the period of the Pandavas *Ajnatas*. The tradition of the five princes is impressed deep in the popular religion of the peninsula and Ladapuram in Perambalur Taluk has the distinction of being considered to be the Vratapuram of the Mahabharata story. Persons bearing the names of Yudhisthira (Dharma, or Dharmaraja), Bhima (Bhimasena), and Arjuna and Draupadi are found in all castes and it is also well-known that the Pallis of North Arcot and the Koyas of the Godavari region held the Pandavas in special reverence. Korra Malayya Swami, the leader of the rebellion against the British regime in the Salur Taluk (1900), gave out that he was a reincarnation of the Pandavas.

Sahadeva is known to have subjected or befriended a ruler of Kerala some days before the great Kurukshetra battle, while a notable exploit of Bhima was the killing of Suraty, the king of Kalinga, whose capital was at Srikakulam. The Vellar River in Salem District is said to be named after Arjuna who was known as Svetavahana. Draupadi temples abound in Tamil Nad and the Sinnanamanur copper plates mention Arjuna or a son of his, as the ancestor of the Pandavas. And across the sea a Ceylonese ruler bearing the name of Pandu is mentioned in the Tirukonessalapuram while the Mahavamsa Chronicle mentions the name Bhima as having been borne by one of the princes related to Vijaya Bahu (eleventh century) through his wife who was a Kalinga princess.

Arjuna in Dramatic Tradition

There are several stories about Arjuna's amours with Ali, Chitrangadai, Paralakodi and Ulipi and representations of his life with these damsels whom he met during his wanderings in the South form an integral part of the popular dramatic tradition. Arjuna's burning love for the amazonian Ali also forms the theme of *Ali Arasani Malai* written by the Tamil author Pugalendi.

The martyrdom of Aravan, a son of Arjuna by the Naga princess, is a pathetic story sanctioned by South Indian tradition. The Kauravas gave a white elephant as sacrificial offering to the Gods during their prayers for success and the Pandavas were perplexed for want of a like offering and Aravan agreed to offer his life for the purpose. He was an unmarried youth and his selfless sacrifice which was crowned with victory for the Pandava cause is said to be commemorated by the annual Kuttandar festival held in the month of May at Kuvakkam in South Arcot District.

Pandava Beds and Hills

We may now turn to what are known as Pandava *padukkais*. Some shallow excavations on the top of

a rock near Mangulam in Madhurai District are called *Pancha Pandava Padukkais*, i.e., beds of the five Pandavas. As Jaina figures are however seen cut on the rock it is probable that some Jains resided in the place at one time. Caves with 'Pandava beds', are also found on a hill at Mattur Tirukkai in North Arcot District.

In two rock-cut caves near Tondur, eight miles from Gingee, are clipped rectangular spaces of 18 inches by 12 inches by $\frac{1}{4}$ inch on the floor, with an elevation at one end to serve as a pillow-case. Here too is a Jain image but the hill is known as *Pancha Pandava Malai*, "Hill of the five Pandavas."

We have another *Pancha Pandava Malai* at Dalavanur which is also near Gingee, where the Pandavas are said to have stayed for a while in the course of their itinerary, and it is also said that the geometrical figures of rural pastimes like the game of "fifteenth tiger" which are drawn on the hill were used by them. It is also interesting to learn that the poetess Auvaiyar, the Sappho of Tamil literature, is said to have been born among the boulders here.

Yet another spot with the reputation of having been the resting-place of the fugitive princes is Aivarmalai near Palni and we may also mention the Pandava Muttu Hill south of Mangulam already mentioned.

Antiquarian Remains

Kistvaens and tumuli are of great archaeological interest and such antiquarian remains abound in the peninsula though not in the state of perfection associated with structures elsewhere, as for instance the perfect 58 feet girth Kistvaen of the stone barrow on the Samson Isle of the Sicilly Isles group off Cornwall.

What are usually known as *Pandukulis* (pits of the Pandavas) are mostly burial places and dolmens or rude stone circles of this class are, in fact, known in some places as *mandavar kulis* (graves of the dead), 'Pandukuli' or 'Pandava kuli' being regarded as a corruption of 'Mandavar Kuli.' It is also believed that some burial grounds are protected by spells cast on them and that when a person is buried, his ghost is raised through spells to keep guard. It is also interesting to learn that Kistvaens are known as *Pandugullus* in the Andhra districts too, many of them being found near Yerraguntla in Cuddapah District and also at Amilepalle in Vayalpad Taluk now in Chittoor District.

The burial places of Pollachi opened many years ago and described by Wedderburn and Dr. Shortt (1874) were large, being of 10 to 45 feet diameter and revealed that greater care was formerly taken in the disposal of the dead than now. The numerous *Pandukulis* which abound in Devanur, east of Tirukkoyilur, were described by J. H. Garstin and Walhouse in 1875 in the pages of the now defunct *Indian Antiquary* and such *Pandukulis* are indeed widespread.

It would appear that the tradition of Veerakkal or hero-stones easily associated such efforts with the Pandava name much as Cyclops and Nimrod figure in the legends of the Levant and Asia Minor. The lakelets and temples in the Berikai Palayam area in Hosur Taluk and the region about Perur and Ellapalayam near Coimbatore also show examples, while the vicinity of Kundanur near Gummala-pura and Edappadi on the Morappur-Rasan Road have

Back hundreds of these *Pandavakulis*. Although tradition has it that the Pandavas performed tapas in them, the existence of hundreds of *Pandukulis* is inexplicable as the princes were only five in number (*Salem District Gazetteer*, ii. 144).

They are all too near residential areas to be deemed to have been graveyards and as some of the *Pandukulis* were ransacked in the past, it is considered likely that people made the *kulis* or pits for concealing treasure. The making of such pits would therefore seem to exemplify a primitive effort towards security and the late M. M. Swaminatha Iyer preferred the expression *Panda Kulis*, i.e., pot pits as being appropriate to connote the purpose of concealing treasure in mud or earthen pots.

Stone-tables and Shrines

The stone-tables erected in some places are attributed to a race of Pandava dwarfs who are said to have been assisted by hares and porcupines even as squirrels helped Sri Ramachandra at Setu. The dolmens of the Nilgiris are no mere places of worship and the Badagas who treat them as Gods have resisted attempts to remove them to any museum.

There are several shrines in Southern India where pious folk render worship of Draupadi, the Pandavas' joint spouse through the most famous phratrogamous alliance of all time. Her worship has wide vogue and notably in places like Chinnasalem, Edappadi and Devanur, as well as Scivilliputtur and Viravanallur in the districts of Ramanadhapuram and Tirumelveli in the far south.

Draupadi-amman kovils are also known as Dharmarajakovils in many places and spectacular 'fire-walking' ceremonies are witnessed at the annual festivals, the story being that Draupadi purified herself by fire as she lived with the Pandava brother by turn, one year with each brother. The fire-walking has extended to the festivals of some other deities too, but it seems to be usual for the fire-pit to be lit on such occasions by a brand from a Draupadi festival. In certain temples the fire-walking depends on Draupadi amma's consent being accorded and at Turaiyur a sword is fixed point downwards and the Goddess is supposed to indicate the permission sought if the weapon remains upright.

Worship of Draupadi

In the district of South Arcot, the Palli or Padayachi community takes a leading part in the worship of Draupadi. Although it is a mystery, there is a belief amongst the members of this community that they, like the Pandavas, were born of fire and that they are consequently related. The Palli recites copiously from the Mahabharatam and is fond of enacting scenes from the epic. The Malayalis of Kalarayan range also perform puja to Draupadi as they do to other deities as well and popular dramatic tradition in Kerala too has given an honoured place to Draupadi and her husbands.

The real name of this famous daughter of Draupada of Panchala was Krishna and it is plausible that the association of the name in men's mind with the contemporaneous avatar of Sri Krishna (the Pandavadhoothar shrine in Kauchepuram recalls His ride as the emissary of the Pandavas), accounts not only for the widespread popularity of Draupadi worship but for the other elements in the Pandava cult as well.

Borewells

1. Chingleput District—

Kancheepuram Taluk—Sirukanchipakkam village.—In a 6-inch well bore put down in survey No. 80 of Sirukanchipakkam village to a depth of 58 feet to ground level good spring was tapped at 47 feet from ground level. The water level rose up to 19 feet to ground level. The borewell discharges at the rate of 10,800 gallons per hour. The approximate cost of boring is Rs. 156-6-0 and an extent of about ten acres will be irrigated.

Ponneri Taluk—Thanderampalayam village.—In a 4-inch well boring put down in survey No. 56 of Thanderampalayam village to a depth 57 feet to ground level good spring was tapped at 57 feet below ground level as a result of which the water level rose up to 26 feet to ground level. The well gave a discharge of 12,000 gallons per hour. The approximate cost of boring is Rs. 157 and about nine acres of land will be benefited.

2. North Arcot District—

Takkolam Taluk—Takkolam village.—In a 6 inches × 4 inches well bore put down in survey No. 553 of Takkolam village to a depth of 39 feet from ground level good spring was tapped between 57 feet and 59 feet as a result of which the water level rose to 17 feet 6 inches to ground level. The well gave a discharge of about 15,000 gallons per hour. The approximate cost of boring is Rs. 150 and an extent of about four acres of land will be benefited.

3. East Godavari District—

Rajahmundry Taluk—Razole village.—In a 6 inches × 4 inches boring put down in a well of 9 feet diameter and 30 feet deep in survey No. 70/1 of Razole village to a depth of 60 feet ground level good spring was tapped between 58 feet and 60 feet below ground level. The well yields at the rate of about 9,000 gallons per hour. The approximate cost of boring is Rs. 400 and an extent of about six acres of land will be irrigated.

Regional Transport Authorities

Consequent on the introduction of the scheme of the Separation of the Judiciary from the Executive in the districts of Srikakulam and Visakhapatnam, the Government have appointed the Collector and Additional District Magistrate concerned, as the Chairman of the Regional Transport Authority in each of these two districts.

Tiruchi Donation

The Government accept with thanks the offer of a donation of Rs. 2,000 from the Tiruchirappalli District Committee of the Madras Provincial Welfare Fund towards the provision of certain amenities for the patients of the Gandhiji Memorial District Headquarters Hospital, Tiruchirappalli.

Practical Training in Highways

The Government have directed that the scheme sanctioned some time ago, which affords facilities to Engineering students for acquiring practical experience in Public Works Department Works during their vacation, be extended to the Highways Department also.

Our Fishery Resources

Our State has a coastline of 1,700 miles—1,425 miles in the east and 275 in the west. The exploitable shallow area extends on an average up to 25 miles from the coast. This area sustains good fishery of oil sardines, mackerals, flying fishes, ribbon fishes, seey, white-bait, sharks and perches. Only one-tenth of this fishery is at present exploited, the annual landings being two lakhs tons of fish valued at ten crores of rupees. By the introduction of small power vessels, a little modification and mechanisation of the existing boats and nets, and by making available adequate quantities of yarn and catamaran logs at reasonable prices, it should be possible to exploit the entire shallow area including the recently made known rich fishing areas off Cape Comorin, Mandapam, Nagapattinam and Mangalore.

Besides the sea, the inland fisheries also have got great potentiality for intensive development. There are about nine lakhs of acres of inland waters consisting of 6-82 lakhs acres of fresh waters and 2-13 lakhs acres of brackish waters. Properly cultivated by putting in them quick growing fish seeds which are available in large numbers, each acre should yield 1,000—2,000 lb. of fish. The Fisheries Department has been able to get an yield of 2,000 lb per acre from demonstration farms like the Dykes Pond at Visakhapatnam. There are also the great river systems and immense reservoirs like Mettur Reservoir. The latter alone can yield 10,000 tons of fish valued at 56 lakhs of rupees. The chank beds and pearl banks of Gulf of Mannar also yield a considerable income to the Government.

In this connection, the Government desire to point out that fish has a very high nutritive value. Its approximate composition shows about 70 per cent water, 18 per cent protein and 12 per cent fats. It also contains calcium, phosphorus and iron which are of great importance in body building, especially in growing children and nursing mothers. This State produces only 3-4 lb. of fish per head per annum, while the production *per capita* per year in Japan is 111 lb. Several new schemes to augment fish production and to make increased quantities of fish available for human consumption will be executed shortly by the Fisheries Department.

Work of the Fisheries Department

It was to conserve, develop and exploit the natural resources of this State, the Madras Fisheries Bureau,

Racks with fish hung up for drying in a Bombay curing yard.
"Salted fish sans smell" will give a great filip to fishing



the first of its kind in India, was organised four decades ago. The Department set to itself the execution of the following programme of work:—

1. Surveying and exploiting the marine resources of the State by improved fishing craft and gear and popularising their use by demonstration and propaganda.
2. Stocking inland waters with fry of quick growing species, and persuading private pisciculturists to do the same by demonstration and propaganda.
3. Introducing improved methods of processing the preserving fish by sun drying, salt curing, pickling, canning, semi-drying and refrigeration.
4. Manufacturing bye-products such as liver oil, body oil, fishmeal, manure, beach demer, sheel grit, etc.
5. Developing subsidiary branches of fisheries such as pearl and chank fisheries, turtle fisheries, etc.
6. Organising and marketing of the various products from the fisheries.
7. Supplying the results of scientific investigations to practical problems and commercial methods and practice of the country and improving the socio-economic condition of the fishermen who form the back-bone of the industry through organising fishermen co-operative societies and starting fisheries schools.

Considerable Progress Made

In all these attempts the Department has made considerable progress. Rich fishing grounds off Mandapam and that off Cape Comorin called the Wadge Bank have been explored; preliminary operations were conducted last year and very good catches have been landed. The Department has also constructed a small mechanised craft called the "Ajit" costing about Rs. 6,000. It is at present operating at Nagapattinam. The daily catches from the craft are roughly six times that derived from the indigenous non-mechanised craft.

The Department has introduced a latest contrivance for catching sharks. It is a revolving hook, a very simple but effective contrivance for capture of sharks. The bait is attached to the hook and is swallowed by the shark. As sharks are very powerful fish they usually snap off the chain attaching the hook to the wire. The hook goes on revolving when the sharks struggle to get free. The sharks get exhausted in a few hours. These revolving hooks have been widely adopted by fishermen and are very effective in catching the sharks.

Preservation of Fish

Considerable attention has been devoted to the important problem of preservation of fish. A number of fish-curing yards, where good quality salt is supplied at concessional rates, were opened decades back. The curing was done under expert supervision. The other methods of preservation like semi-drying of prawns, canning (only one of its kind in India) have been successfully introduced. From the inception of the Department socio-economic work has engaged considerable attention. Many co-operative societies have been started in the West Coast, Tanjore and Visakhapatnam. At present there are 112 co-operative societies.

The Department has been aiming at giving suitable education to children of the fishermen. Special attention has been devoted to subjects relating to fishing, the various crafts and tackle, the season and breeding habits of fish and various methods of fish preservation. There are at present 67 schools with a strength of 10,390 children. There is also a high school at Madapalli (North Malabar).

Shark Liver Oil

Due to the great shortage of cod liver oil, research was conducted to find a suitable substitute. It was found out that the oil from the liver of sharks and rays is not only a good substitute, but in some respect exceeds cod liver oil. A factory to manufacture shark liver oil was opened at Kozhikode. A number of deep sea fishing centres to capture sharks and supply livers to the factory were opened. The common tiger shark which grows up to a length of 14 feet and weights about 1,000 pounds is found to yield very good quality of oil and in good quantities also. As much as 25 gallons of oil have been extracted from a single shark. The oil is of fine golden colour, with a slight red tint. The Shark Liver Oil Factory at Kozhikode is doing a great service to the country by placing a fine product containing essential vitamins at a reasonable price to the public. 'Adamin' that is produced in the factory is found to be superior to many foreign products, especially in the matter of assimilability delicate children.

In the field of inland fisheries, the Department has achieved considerable success and acclimatised estuarine fishes like Chanes and Mulletts to the fresh water. The rate of growth of the species in fresh water is remarkably good. Cases of increase of 4 to 6 lb. a year have been recorded. Numerous potential collection centres for Carps like Catla have been located. Valuable exotic fishes like Gourami from Java and Mirror Carp from Prussia have been introduced.

Catla was introduced from the Godavari and the Krishna to the Cauvery. It is now breeding prolifically in the Cauvery. The value of the Cauvery fisheries have, as a result, gone up considerably. Catla weighing 25 to 30 lb. are caught frequently in the Cauvery and Mettur Reservoir. This achievement of the Department is of great economic importance as Catla is one of the most popular food fishes in South India.

Towards Self-sufficiency

The Government are making an all-round drive for self-sufficiency before 1952. The importance of fish as an article of diet and the necessity for increasing its production has been fully realised. It has been already indicated that only a portion of the resources of the marine fisheries are now being exploited. The rich banks off Cape Comorin, Nagapattinam and Mangalore have been left practically untouched. A number of motor fishing vessels for conducting deep-sea fishing were bought recently. On an average these vessels landed about 300 tons of fish annually, besides feeding the Shark Liver Oil Factory at Kozhikode with 25,000 lb. of raw oil.

Under a plan known as the Rural Fishery Demonstration Scheme, staff were stationed in all the districts to survey the waters with a view to find out their suitability for pisciculture and to plant suitable types of fish seed in them. So far the section has surveyed 2½ lakhs acres of

water and planted eight lakhs of fish seed like Catla, Chanes, Labeo, etc. Demonstration tanks were maintained and ryots encouraged to farm all the waters. Satisfactory results have so far been recorded, the units having produced 5,000 tons of additional fish yearly. There is also great demand for fish seed from private pisciculturists. A scheme for stocking intensively 5,000 acres of inland waters with five crores of fingerlings is awaiting Government sanction.

If all the inland waters of over eight lakhs of acres are stocked properly in course of time it would be possible to get annually an yield of about three lakhs tons of fish. The big reservoir if exploited properly under proper supervision can yield considerable quantities. The Mettur Reservoir, for example, which has got an average depth of 65 feet and an area of 40,000 acres, has been estimated to produce about 10,000 tons of good fish yearly. At present the Fisheries department is working a pilot scheme with 20 fishermen and are landing about 1,000 lb. of fish daily. The area exploited is only a small fraction of the reservoir.

Honorary Propagandists

The attention of the Government has been drawn to the comments appearing in the Malayalam issue of *Pourasakthi* under date 10th September 1950 on the decision of the Government to appoint 27 Honorary Propagandists in eight selected districts of this State. The paper is under a misapprehension that this is another means of wasting public funds, as the honorary officers will be getting an allowance besides travelling allowance, and will also be having clerks and peons.

The Government, therefore, wish to make clear the scope and purpose of the above scheme for the information of the public. The present proposal is to appoint in the first instance 27 Honorary Propagandists selected from among enlightened farmers in eight deltaic districts, generally at the rate of three propagandists for each district and four for a few districts in that group.

The main object of this scheme is to carry the latest scientific knowledge about agriculture to the door of the cultivator. The distinguishing feature of this "Extension Service" is the field demonstration carried through voluntary local leaders in ryots' own lands. The Honorary Propagandists will be paid only an honorarium of Rs. 50 per mensem each to cover their travelling expenses and will not be entitled to any further emoluments and they will be assisted each by a demonstration maistri. The Propagandists will generally work in villages not covered by the Agricultural Demonstrators but in close collaboration with them.

Each Honorary Propagandist is required to set up a certain number of demonstration plots in ryots' own lands. It will also be the duty of these Propagandists to organise Village Agricultural Associations, conduct exhibitions and all other types of agricultural demonstration and propaganda. Only suitable persons with sufficient experience in agriculture and enthusiasm to take up the work have been selected by the Government.

IRRIGATION

Madras Agriculturists' Relief Act, 1938— Working

The number of cases under the Madras Agriculturists' Relief Act, 1938, disposed of by Civil Courts in the Province during the quarter ending 30th September 1949 was 891. For the period between the 22nd March 1938 (when the Act came into force) and 30th September 1949 (covering 139 months), the total number of cases disposed of was 2,10,854.

The amount involved in the applications disposed of under sections 8, 9, 13, 18 (1), 19 and 19-A of the Act for the quarter ending 30th September 1949 was Rs. 5,87,766. The amount involved in such applications for the period between 22nd March 1938 and 30th September 1949 stood at Rs. 9,98,36,750.

The amount as scaled down by the courts on the applications of indebted agriculturists for the quarter ending

30th September 1949 was Rs. 2,37,218. For the period between 22nd March 1938 and 30th September 1949, the amount as scaled down was Rs. 4,78,82,816.

The amount reduced as a result of the scaling down of debts for the quarter ending 30th September 1949 was Rs. 3,50,549. For the period between 22nd March 1938 and 30th September 1949, the amount similarly reduced was Rs. 5,19,53,933 and the percentage of reduction was 52.04.

The number of cases pending at the close of the quarter ending 30th September 1949 was 1,219.

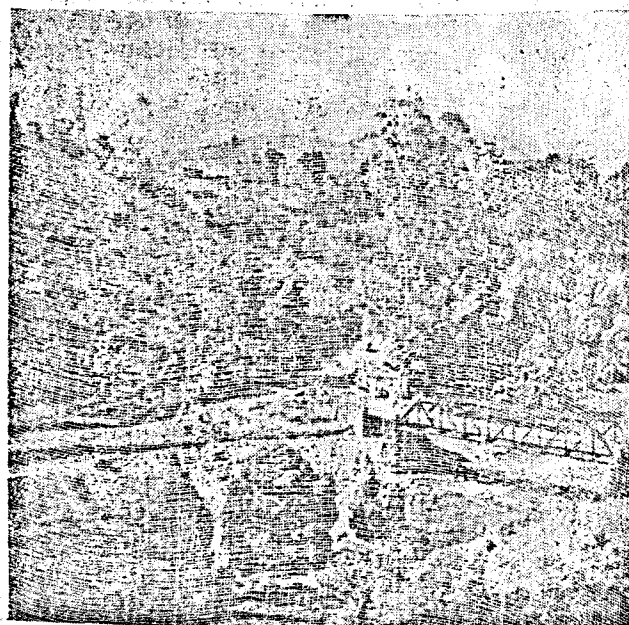
The figures given above exclude the number of cases voluntarily settled by private parties without recourse to courts.

In The Past

In a country with fluctuating and irregular rainfall there is no need for arguments to show that irrigation necessarily plays a vital role if the agriculture is to prove a paying industry. Ever since the dawn of the present century, the Government have taken various measures for expanding the irrigation facilities in this country. A Central Board of Irrigation was started in 1927, as a panel from which sub-committees could be formed to advise the Government of India and the Provinces on matters connected with irrigation projects and allied matters. It was formed into an active committee in 1930 with the additional objects of collecting and disseminating knowledge on irrigation and allied subjects, co-ordination of research, etc. During the recent meeting of the Board, the possibilities of increasing the prosperity of the country through planned expansion of irrigation facilities were discussed.

The President made significant observations in the course of his address to the Board. The part irrigation and hydro-electric schemes play in the general picture was outlined. Irrigation works are also machines in the sense that they raise water from a low level to a high level and make it flow by gravity. Storage reservoirs store water which otherwise gets wasted into the sea, even out the vagaries of a monsoon and make man less dependent on nature and be sure of the fruits of his labour. They are just like electric storage batteries. A worker can cultivate more land when the land is irrigated by flow than when he has to lift water from a well. It is also a well-known fact that an irrigated land produces about three times more crop than a land solely dependent on rainfall in low rainfall areas.

Water power is cheaper than other forms of energy provided certain favourable conditions exist and often irrigation and power can be both combined in one work as in a multipurpose project, and again also linked to thermal power. Food and power are in the forefront of our needs.



IRRIGATION

New Schemes

The Government have sanctioned a number of irrigation schemes during December 1949.

In West Godavari district, it has been decided to extend the irrigation under the Kolanpalli Lanka canal. The scheme is estimated to cost Rs. 91,350 for works or Rs. 1,18,851 including direct and indirect charges. The additional annual production of foodgrains expected as a result of the execution of the scheme is estimated at 450 tons of rice.

In Nellore district, the excavation of a new High Level channel from the Pydaru river has been sanctioned. The scheme is estimated to cost Rs. 33,000 for works or Rs. 42,935 inclusive of direct and indirect charges. The additional yield of foodgrains expected as a result of the

execution of the scheme is estimated at 200 tons of foodgrains per annum.

In Tanjore district, the excavation of a new channel from Seeravattanam has also been sanctioned. The scheme is estimated to cost Rs. 21,200 for works or Rs. 27,583 including direct and indirect charges. The anticipated additional yield of foodgrains as a result of the execution of the scheme is about 33 tons of rice per annum.

In Tiruchirappalli district, the restoration of the abandoned Kaikathur tank in Perambalur taluk is to be carried out. The scheme is estimated to cost Rs. 1,47,500 for works or Rs. 1,92,000 inclusive of direct and indirect charges and bring under cultivation 350 acres. The additional yield of food grains anticipated as a result of the execution of the scheme is about 81 tons of rice per annum.

Tungabhadra project well under way



Weavers and the Yarn Market

During the second half of 1949 there was a glut in the yarn market owing to large accumulation of stocks with the mills. The demand from the weavers was very low with the result that the dealers felt difficulty in disposing of stocks with them. Consequently, all the stocks of yarn allotted to dealers were not lifted. In order to see that the allotted supplies did not lapse and that the available yarn was distributed to all parts of the State, the Government ordered that yarn licences might be freely issued without any restriction. Instructions were also issued removing all restrictions as to sale of yarn within the State.

The Government of India, with a view to helping the mills in the disposal of their accumulations, permitted them to dispose of one-third of their production of yarn to the buyers of their own choice, to dispose of any quantity of yarn for export, and also to sell all quantities of yarn not lifted by Government nominees, to buyers of their own choice.

The above concessions, while helping the mills in South India to dispose of all their accumulations, also enabled them to dispose of a large part of their subsequent production without even trying to satisfy the local demands. The power shortage in South India and the shortage of cotton also contributed further to the decline in the quantity of yarn available for internal consumption. Though the cut in power supply has since been restored, there has not been any appreciable improvement in yarn supplies.

Concession of Free Yarn Sales Withdrawn

This position was brought to the notice of the Government of India and the imperative need to withdraw the concession of free sale of yarn from mills and also to stop unrestricted exports outside the Union was repeatedly impressed upon that Government. As a result of these representations, the Government of India temporarily withdrew the concession of free yarn sales from the Madras State mills for June and July 1950 and later withdrew the concession permanently in the case of all mills in the Union from 1st August 1950. The withdrawal of concession during June and July 1950 resulted in some increased offers by mills, but there was a sudden fall in the offers by mills in August 1950 and scarcity has again come to stay. Owing to the reduced offers in August, this Government addressed the Government of India for an immediate *ad hoc* allotment of at least 30,000 bales to relieve the immediate distress of the weavers.

As regards the shortage of the required counts of yarn, it is due partly to the mills spinning counts which are suitable for export and which fetch them higher prices and partly due to the shortage of the required types of cotton. The Government of India have been addressed to instruct the mills to produce the required counts of yarn as far as possible by suitably adjusting the spinning programme and by helping them to import the required types of cotton. The Government of India have also been addressed to allow the entire yarn requirements of this State as far as possible from the production of the South Indian Mills and allow exports to other States in the Union only after satisfying the requirements of this State. As regards the counts yarn in respect of which this State is deficient, the Government of India have been requested

to make necessary allotments from mills in this and the neighbouring States instead of from far-off places like Delhi, to reduce transport charges and also delay in transit.

Shortage of Higher Counts of Yarn

As regards shortage of higher counts of yarn in this State, the Government of India have already decided to allow imports of 80s. and 100s. counts to meet the immediate requirements of the handloom industry in these counts and arrangements for issuing import licences are expected to be finalised shortly. The mills in this State producing these counts are also being encouraged to produce more and more of these higher counts by allowing them a higher margin of profit by permitting sales direct to consumers at retail rates.

In order to ensure equitable distribution of the available yarn among all the weaving centres in the State, instructions have been issued by the Director of Controlled Commodities to Collectors to introduce informal rationing of yarn immediately by a system of identity cards and also to constitute yarn advisory committees for weaving centres.

From the above it may be seen that this Government are fully alive to the serious situation facing the handloom weavers in this State due to scarcity of yarn and that they are taking all possible steps to relieve the distress of the weavers.

Publication of Race News

It has been brought to the notice of the Government that certain newspapers did not comply with the provisions of the Madras City Police Gaming Rules, 1949, in regard to the publication of information during the 1949-50 racing season at Guindy. It is therefore considered necessary to clarify the position in the matter of publication of race news in newspapers for future guidance. Rule 3 of the Madras City Police Gaming Rules, 1949, as amended, allows only a *description of the facts* relating to pedigree, form, handicap and track performance of the candidates in each race before the event. The key word is "facts" and any expression of opinion or discussion of the comparative merits of the various horses or speculation as to the result of the race is *not* permissible under the rule.

Law Officers and City Criminal Cases

The Government have directed that in all criminal or quasi-criminal matters including writs of *Habeas Corpus*, arising within the limits of the City of Madras, the State Prosecutor should ordinarily appear and deal with them on behalf of the State.

In matters where the Advocate-General is requested by Government to appear on behalf of the State (in criminal or quasi-criminal matters arising in the City) he will appear as the Senior Counsel of the State Prosecutor, the State Prosecutor also entering appearance to assist the Advocate-General.

Rural Housing

Food, clothing and shelter are the essential requirements of human beings. Housing is the primary need of a human family in civilised life. It constitutes the most important part of the physical environment, which continually influence man's health and well-being. Health, happiness, general manners and morals of the people are to a larger extent influenced by the conditions of housing. The increase in population without a corresponding increase in the number of houses in recent years has led to shortage of houses. On account of the conditions created by the war, the shortage of houses was getting more and more acute.

To relieve the shortage of houses, co-operative building societies were formed and loans were advanced at cheap rates of interest through these societies for construction of houses. In important towns Co-operative House Construction Societies were formed for the construction and letting out of houses on the hire purchase system. Co-operative housing schemes have so far been confined to municipalities and major panchayats. As a first step in providing housing facilities for the rural population, the Government have recently sanctioned a scheme for organising co-operative housing societies in rural areas, and have provided in the current year's Budget a sum of Rs. 20 lakhs to be advanced as loans to the members of such societies, for construction of houses. The scheme is applicable to all places outside municipalities, and major panchayats to which the urban housing scheme is available.

Functions of Housing Societies

Separate rural housing societies will be organised in all centres where the scheme is to be introduced. The liability of these societies will be limited and their constitution, working and management will be similar to those of the urban housing societies on the individual ownership system. The society will borrow money from Government and pass on the loan to the individual applicant in cash in instalments as the construction progresses. The society will not undertake the construction of houses on behalf of its members, except if expressly required by the borrowers. Most of the villagers are anxious to construct their houses themselves because, in that case, they can contribute their own labour and reduce the ultimate cost of the house. The society will, however, assist the members by the bulk purchase of building materials such as cement, iron and steel, timber, etc., and by distributing them to members on the indent system.

The construction of houses under the scheme should ordinarily be in a block of at least ten, with a layout plan providing for streets, lanes, etc. The new colony should form more or less an extension of the village. Each house should be separate from the other and should have a ground space of minimum seven cents with space for kitchen garden in the rear. The society will assist the members in acquiring the sites required by them. The special land acquisition staff working under the control of the Registrar can be utilised for the acquisition of private lands, wherever necessary.

Every applicant requiring a loan under the scheme will be required to take shares in the society only in cash. The value of the site will not be permitted to be adjusted towards the share capital unlike in the case of some urban housing societies. Each member of a rural housing society will be eligible for a Government loan up to three times his paid-up share capital subject to a maximum of Rs. 5,000 and for another loan from the society to the extent of his paid-up share capital. Thus each member will get a total loan of four times his paid-up share capital.

Minimum Standards Prescribed

Loans will be granted only for construction of new houses, using pucca materials like burnt bricks, or coarse rubble in lime or cement mortar for the foundation, basement and superstructure. Construction of such houses will confer on the members the benefits of damp-proof and rat-proof walls and flooring and the charges of maintenance and repair will be lighter than if cheaper materials are used. No Government loan will be advanced for the construction of a house whose area is less than the minimum standard prescribed by the Provincial Housing Committee.

The intention is that houses constructed in rural areas with the aid of State loans should be roomy and spacious and conform to health conditions. They should provide at least two living rooms, a veranda and a kitchen and should have a minimum flooring space of 340 square feet. The members will be at liberty to prepare the design of their houses according to their needs and taste. To assist persons who may not find it easy to engage the services of a qualified technician to prepare the plans and designs of their houses, two or three type designs of houses costing between Rs. 3,000 and Rs. 6,000 will be made available to rural housing societies, for adoption by their members, if they so desire. During the course of construction, the houses will be inspected by the Officers of the P.W.D. to ensure that the materials used are according to specification approved and that there is no major flaw in the construction.

One Village in Each District

The scheme is proposed to be introduced in the first year only in one village in each district. Rural housing co-operative societies have so far been organised at Gurupuram in Bellary District, Khajipet in Cuddapah District, Elathur-Chettipalayam in Coimbatore District, Thavanampalli in Chittoor District, Rangapuram in West Godavari District, Peddapalem in Guntur District, Panyam in Kurnool District, Pudupatty in Madhurai District, Ramachandrapuram in Ramanathapuram District, Kalathur in Salem District, Tiruvidaimarudur in Tiruchirappalli District and Budalur in Tanjore District.

In the remaining districts, rural housing societies are expected to be organised shortly. The question of extending the scheme to more villages will be considered next year. Rural Housing on a co-operative basis is a new enterprise launched in Madras State and its working will be watched with keen interest by the Government and the public.



Just Published

"ON THE RED TRAIL"

Exposing the futile policies and desperate tactics of anti-social elements in Madras State.

English, Tamil and Telugu editions available.

Published by the Department of Information and Publicity, Fort St. George, Madras-9.

Price Annas Four.

MADRAS . . . IN THE FOURTH YEAR OF FREEDOM

Latest Publication
Profusely Illustrated
Price Annas Eight only

Order your Copy now through your local Agent.
Copies can also be had, on payment of cost in advance, from:

The Director of Information and Publicity,
Fort St. George, Madras-9.

BOOKS

45

290

MADRAS INFORMATION

India In The Year 1949

THE THIRD YEAR

Published by the Publications Division, Ministry of Information and Broadcasting, Government of India.

Pages 378.

Price Rs. 1-8-0.

This neatly got-up book gives a compact summary of Indian affairs in the year 1949. Admittedly the year marked a critical phase in the progress of the nation from establishment to consolidation; and problems like financial stringency, food shortage, devaluation and the influx of refugees, sorely strained national economy and political peace, already disrupted by post-war conditions and the Partition. The book records the tackling of all such questions in the Government sphere, both in the centre and the periphery, and the achievements listed constitute a modest tribute to the nation builders.

The book is designed in three parts. Part I describes the activities of the Central Government, surveying fields like law and order, food and agriculture, transport, industry, rehabilitation of displaced persons, power and mineral resources, education, defence, international relations, finance, health, commerce, integration of territorial units, labour, communications, information and broadcasting.

Part II is a welcome departure from the run of Government reports. It consists of articles on aspects of national development like press and public opinion, scientific research, industrial expansion, cultural contacts, important publications, progress of the Adivasis and Indians abroad, contributed by well-known writers who command public attention. Part III lists the progress made by the States in the various spheres of nation-building activities.

Despite the bulk of the Volume, the articles are short and terse, even to the point of being abrupt. By severely restricting themselves to the events of the year, the compilers have perforce to sacrifice an element of continuity in the review, thus making the volume a jerky record of developmental highlights. A short introductory paragraph in each chapter, dealing with the *status quo*, would easily remedy this minor defect in the structure of the book.

The vast scope of the publication, the authoritative sources of the information contained, the fine photographs and neat graphs make this book an indispensable reference work for all students of Indian affairs.

—P.V.S.

BULLETIN OF THE GOVERNMENT ORIENTAL MANUSCRIPTS LIBRARY, MADRAS

*Edited by T. CHANDRASEKHARAN, M.A., L.T.,
Curator, Government Oriental Manuscripts Library, Madras.*
Vol. III, No. 2. Pages 140. Price Rs. 2.

The Government Oriental Manuscripts Library publishes two numbers of the Bulletin annually, to provide in a printed form critical editions of original works in Sanskrit, Tamil, Telugu, Kannada, Malayalam, Marathi and Urdu, from rare and ancient manuscripts of literary, scientific, historical and artistic importance. The Oriental Manuscripts Library contains a vast collection of such manuscripts, many of which have never been printed and some available only in this Library. The invaluable services to the world of letters by this undertaking of the

Oriental Manuscripts Library has been duly acknowledged and applauded by scholars both here and abroad.

The annual subscription is only Rs. 4 inland and 8 sh. foreign. Every earnest student of Indian Literature will endorse the appeal of the Curator who writes: "Scholars, Patrons of Culture, Universities, Public Libraries and Educational Institutions are requested to enrol themselves as subscribers for this Bulletin and thus encourage the cause of Oriental Studies and Culture."

—P.V.S.

INTERMEDIATE CALCULUS

*By N. RAMA RAO, M.A. (HONS.), B.ED.,
Professor of Mathematics, Sri Venkateswara College,
Tirupati.*

Pages 116.

Price Rs. 1-8-0.

Intermediate Calculus, designed as a text-book for Intermediate Students of the Andhra University, is a handy guide for introduction to the study of calculus. Functions and Limits, Differentiation and Integration are defined in a simple yet lucid manner, along with suitable examples neatly worked out. A number of problems are given in each chapter for the student to work out, along with the Madras University question papers from March 1942 to September 1949. The answers are also given.

—P.I.

TWENTY-THIRD ANNUAL REPORT OF THE SOUTH INDIAN HUMANITARIAN LEAGUE

132, Mint Street, Madras-1.

The twenty-third annual report presents the activities of the South Indian Humanitarian League for the year 1949. The main object of the League is to bring about the complete abolition of animal immolation in the name of God and Religion. Commendable work has been done by the League workers to carry the message of love and kindness to animals throughout the State, and the report indicates that their mission has evoked gratifying response from the public. The South Indian Humanitarian League sponsored the Animal and Bird Sacrifices Abolition Bill, passed in the Madras Legislative Council on January 26, 1949. This measure, the League proudly claims, is in furtherance of Gandhiji's appeal: "It is my constant prayer that there may be born on earth some great spirit, man or woman, fired with divine piety who will deliver us from this heinous sin, save the lives of the innocent creatures, and purify the temple. Sacrifice of animals in the name of religion is remnant of barbarism."

Drama Scripts on Tree Planting

Government have sanctioned the holding of a competition for drama scripts on Tree Planting in the regional languages of the State, viz., Tamil, Telugu, Malayalam and Kannada. The best script in each language will be awarded a prize of Rs. 100.

The Standing Committee on Tree Planting at Madras will be in charge of conducting the prize competition.

Silent and Swift Revolution

By SRI G. RAMACHANDRAN

Sri G. Ramachandran, Secretary of the All-India Village Industries Association, Waraha and Member of the Advisory Board of the Planning Commission, New Delhi, who recently visited some Basic Teachers' Training Centres in the Madras State, has given his impressions of Basic Education work in the State.

Sri G. Ramachandran observes:

I have visited 12 Basic Teachers' Training Centres. These are situated mostly in rural areas in the Districts of Malabar, Ramanathapuram, Madurai and Coimbatore. I must say that I am pleased and not a little thrilled by what I have seen and studied. There are altogether 48 Basic Teachers' Training Centres in the State and I have so far seen only 12 of them, but I am planning to see more of them. What I have seen and studied however has convinced me that what is happening is a silent and swift revolution in education from the bottom. In the 12 Training Centres I met nearly a thousand teachers under training in Basic Education and the members of the staff in charge of the training work. The following are some of my vivid impressions:—

1. Agriculture has become an integral part of Basic Education. At the Basic Teachers' Training Centres in rural areas excellent farm work is going on. There are no hired farm labourers, all the work being done by the staff and teachers under training. In five of the twelve of the training centres cereal and vegetable self-sufficiency already stand at 50 per cent. Compost manure making is a speciality at almost every centre.

2. Cotton craft is next emphasised. A stream of cloth production has started which when fully developed will make the villages in which the training schools and basic schools are situated, progressively fully self-sufficient.

3. Farm work and cloth production are being carried on as media for teaching various subjects, so that such work is not mechanical but educational. This synthesis of work and learning has improved both production and education.

4. The new teachers are getting training in community organisation on the basis of self-reliance and self-government. The teachers under training elect from month to month their own Cabinets of Ministers who take complete charge of community work including kitchen management, sanitation, cultural activities, internal discipline, etc. Teachers are thus being transformed from classroom officials into conscious and trained citizens in a new social order where all must work for all.

5. In the model Basic schools and other Basic schools a new generation of boys and girls is growing up whose fingers and limbs are receiving as good training as their heads. They are more alert mentally and physically than the children in the ordinary schools. They too are trained in community organisation on the basis of self-reliance and self-government. They ply visitors with paper and often difficult questions.

6. The emphasis on sanitation is something splendid. Through sanitation work much knowledge is given in problems of public health. Similarly kitchen work has become the basis of lessons in nutrition and health.

7. The new teachers have caught the meaning of the idea that an activity-centred system of education is much better than a book-centred system and therefore not only craft activity but agricultural, sanitation and social projects have come into the new schools as the integral basis of education.

Basic education is only three years old in the State. There are many shortcomings and quite a number of flaws. These are being attended to and remedied. The Minister for Education, Sri K. Madhava Menon, deserves congratulation for infusing the Education Department with its long traditions in another direction with faith in the new system; it is lucky that the Special Officer for Basic Education, Sri R. V. Rudrappaswami, is one of those who has fully grasped the ideology and methodology of Basic Education. He was throughout with me on the tour and I had no difficulty in discovering that for him Basic Education is an article both of faith and of conviction. If Gandhiji's dream of self-reliant, prosperous and happy village ever comes true it will do so when every school is a Basic School. The idea that Basic Education will create anti-scientific or anti-modern outlook is absurd. When children become mentally more alert and self-reliant and willing to do strenuous and productive work with their limbs, then they become ready to face up to every problem of modern life. When vast numbers of teachers cease to be classroom officials and become trained and equipped servants of society inside and outside the schools, then nothing is lost but everything is gained. One remarkable thing which I noticed was that wherever Basic Education is planted in an environment where some Gandhian constructive work is already going on, there the new plant acquires a more genuine and richer vitality and where Basic Education takes root in an otherwise different or difficult environment it has the trick of gently and quickly converting that environment into one of all-round constructive work.

And finally, let me say, I know something of Basic Education work in other States in India. The work started in Madras later than elsewhere. Sri Avinashilingam Chettiar, the then Minister for Education, gave the work the first big push. Sri K. Madhava Menon, who came next as Minister for Education, also took up the cause with zeal and conviction. This Southern State has already not only caught up with other States in Basic Education but bids fair to outstrip them all in the next few years.

Training in Tobacco Curing

The Indian Central Tobacco Committee are offering facilities to train about 20 persons free of charge in the flue-curing of cigarette tobacco at its Research Stations at Rajahmundry and Guntur. The qualifications prescribed for a candidate are that they should have some experience or training in general agriculture and must have at least the standard of fieldman or a Kamgar. They must have at least a reading and writing knowledge of Hindustani, Telugu or English. Further particulars and date of commencement of the course of training can be had from the Director of Tobacco Research, the Central Tobacco Research Institute, Rajahmundry.

Planned Leisure for Boys and Girls

Half a century ago, a tiny lamp was lit which lent a gleam of hope to the world torn with strife and turmoil. Today it scintillates with radiance all over this globe illuminating the path of rectitude in the nigrity of the world's darkest passions.

Scouting, the only great serious attempt to organise non-adult life, was started by Lord Baden-Powell, a great man with a glorious vision. Possessed with a fire of enthusiasm and drive, he set the movement afoot with a small band of boys somewhere in remote South Africa. Ever since that time, the organisation has grown by leaps and bounds now embracing millions of youths in its folds.

Scouting is not only the anvil of citizenship but it is a great game, that converts a "mob of appetites into an army of duties and purposes in life". Though character-building is the chief goal, the organisation treats the boy not as a member of a group but as an individual with a specific mental set-up. The boy who joins the movement, however, is unaware of these latent ideals and is merely attracted by the iridescent charm that characterises any scout activity. He throws in his lot purely for the great fun he derives out of it. Incidentally he develops a camaraderie that keeps him inside scouting ever afterwards.

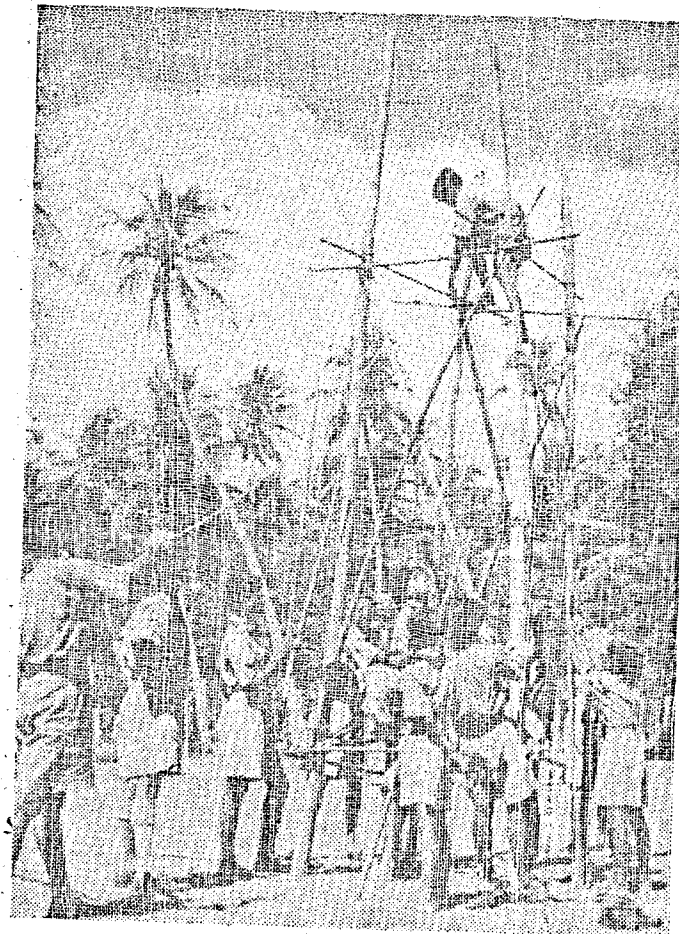
A New Find

Chance throws Natarajan in the midst of a group of scouts on their way hunting for trails. Aroused by curiosity he approaches the leader of the gang, a youth of his own age, and of his own temperament, and requests the leader to take him in the fold. He gets introduced to the Scout Master who admits him. No sooner than he enters the threshold, he finds a new vista open before him with all its splendid allurements. He finds himself transferred from a world enveloped in darkness to a heaven full of light and lambent sprightliness. He discovers that the gloomy winter of his life has yielded place to blooming spring. The raw recruit is nursed in the cradle of nature in an environment of impeccable purity and all his angularities get rounded off.

He is taught the ten basic laws, the alpha and omega of scouting, embodying all that is good and desirable. He finds that these laws dictate the ethics of a civilised world and are easy to follow in his daily life. His life turns a new leaf in trying to follow the laws and his eyes glow with ardent zeal and purity. After a few days, he learns the uses of staff, story of his country's flag, knots to keep his fingers engaged, parade to add to his smartness and passes the tenderfoot test. He is officially absorbed in an investiture ceremony where he takes the sacred pledge of keeping the sacred laws. The investiture creates a deep impression and thenceforward scouting becomes his life.

He Mounts the Scout Ladder

Slowly rung by rung, Natarajan mounts the scout ladder. To him, all the obstacles placed on his path give him the joy of grappling with them and overcoming them. Ere long his perception of life becomes keener. He learns to run a mile in 12 minutes, and camps out a few days in the lap of mother nature. Various tests in smelling, observation, memory he has to pass through. He becomes proficient in signalling, first-aid and finally qualifies himself for the Second Class.



Brawn and brain at work, rigging up a bamboo signalling tower

A patrol out hunting for tracks. An onlooker gets curious and is soon persuaded to become a Scout



To pass the First Class test he has to be a first class boy. Agility, smartness and intelligence he acquires by now, besides skill in the use of cycle and axe. He has to go on a journey of 14 miles on foot and should know how to read a map and estimate correctly distances, heights and weights. The hard experience in the outdoor, the rigour of the tests would shape him into a self-reliant youth, ready to look after himself, cook his own food and attend to his own needs.

But first class does not end the career. He has good number of proficiency badges for which he can qualify himself. These proficiency badges cover a variety of subjects like ambulance, home nursing, woodcraft, signaling, pioneering, camping, photography, book-binding, citizen, airmen, etc., etc. His burning desire for knowledge goads him on to attain proficiency in all fields and he appears for these tests and passes them. His eager endeavours and unstinted life earn him a good name and all his conquests in the field culminate in a grand finale in his being awarded the highest honour that a scout can possibly aspire to get.

Character-building

Though scouting has many inflections from the deeply earnest to the piping playful, the chief aim throughout is character-building. The necessity of a system of ethics, a rule of the road by which conscience, the moral policeman, can direct the mental traffic into right channels, need not be over stressed. Character and character alone is the *sine qua non* of modern civilization. Scouting is the only organization that realizes this pressing need. Competition between patrols not only develops a wonderful team-spirit but, what is more, helps to share knowledge unlike in individual contests which kindle jealousy. Improvement of health forms a major part in the evolution of the scout. Games are devised in such a way that they sharpen the sensory organs and quicken their response. Ceremonies like investiture serve to inspire awe and regard. With what bated breath does the raw recruit kneel before the condave to take the sacred pledge!

Out-door Activities

Out-door life constitutes most of the scout's activity. Camping life is part and parcel of scout-life. Who can describe the passionate longing of the soul for its head where the grass is cool and deep? To rest and play beneath the boughs in the lap of Mother Nature is an enjoyment beyond expression in words.

A big branch of the colossal tree of scouting envelops the girls' section. The tests and rules that the girls have to satisfy far outnumber those of boys. This is because that a girl must be trained to take upon herself heavy responsibilities pertaining to her house at a comparatively earlier age than a boy. Hence it is meet that she be subjected to a more severe examination.

Charges for X-Ray Treatment

Charges are now levied for X-ray treatment in Government medical institutions to patients whose income or the income of the head of whose family is Rs. 75 per mensem. The Government have now raised this limit from Rs. 75 to Rs. 100. The revised limit will come into effect from 1st November 1950.

Scout Training for Rural Welfare Officers

The Rural Welfare Officers of the State will be undergoing shortly two important training courses.

The first is the 10 days' course of Scout Commissioners' training to be given by a Provincial Officer and an Associate Officer of the Hindusthan Scout Association, at the Tamil Nad Grama Sevak Vidyalayam, Kallupatti, during the current year. This decision has been taken by Government on the suggestion made to them that scouting which would inculcate in the minds of the boys a sense of discipline and civic consciousness and an aptitude for social service, should be made popular in the villages.

The second training is intended to enable these officers to prepare estimates relating to simple works such as road-forming, well digging, drain making, and in the check measurement of those works after completion. This training which will last for three weeks and will commence at the Tamil Nad Grama Sevak Vidyalayam, Kallupatti, on 11th December 1950.

Pay Scales for Instructors in Dancing

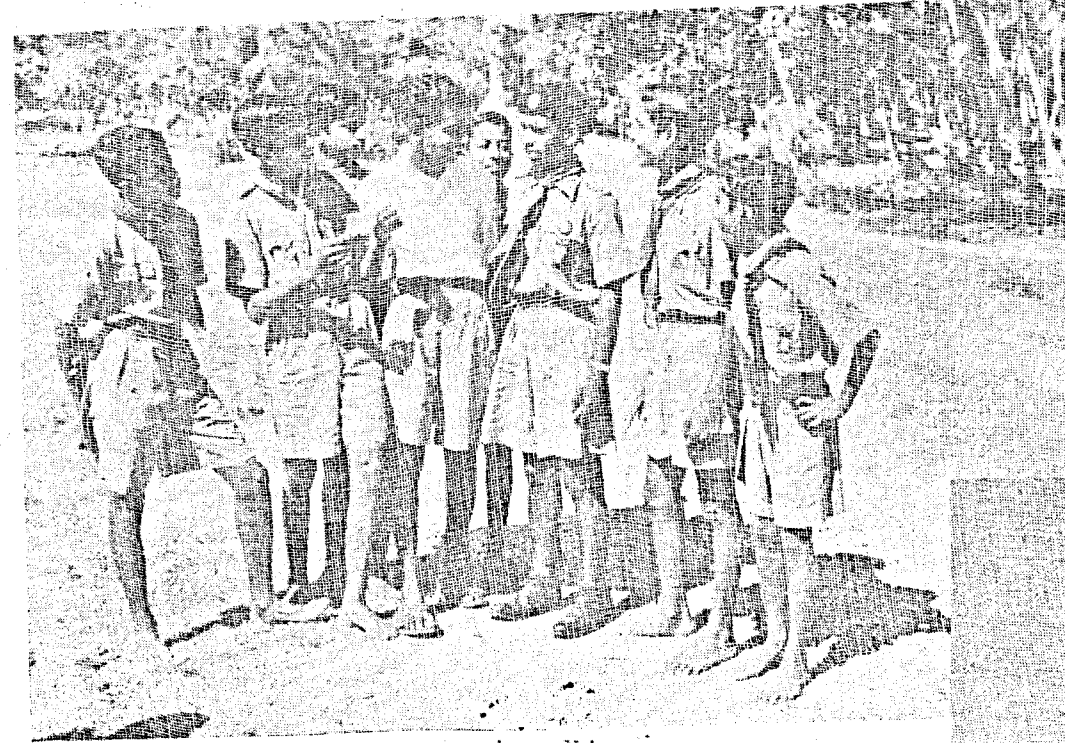
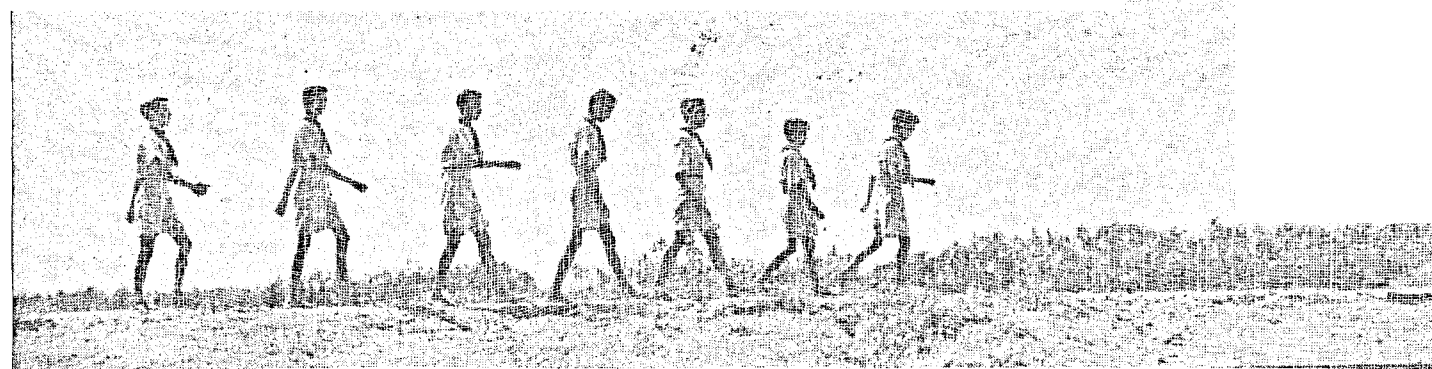
The Government have fixed the scales of pay for Instructors in dancing in Government and non-Government Secondary Schools as Rs. 85-5-125-10-175 and Rs. 75-5-145 respectively. The Diploma course of the Kalakshetra, Adyar, which provides instruction in Kathakali and Bharatha Natyam will be recognized as a qualification for Instructors in Dancing.

Registration of more Pharmacists

The medicaments used in the treatment of diseases are becoming increasingly complex. Some of the drugs are so dangerous that a slight error in their handling or dispensing may endanger life. It has therefore become necessary that medicines should be compounded, prepared, mixed or dispensed on prescriptions, only by, or under the direct and personal supervision of a fully qualified and competent person. The Indian Pharmacy Act, 1948, enacted for the purpose therefore provides for the registration of persons practising the profession of Pharmacy. The Government of Madras have constituted a Registration Tribunal in this State and had fixed the 31st July 1950 as the last date for the receipt of applications for registration. The date was subsequently extended to the 31st October 1950. But the number of applications received so far is much less than the number of persons who must be practising the profession in this State.

Apparently many Pharmacists are not aware that no medicine can be compounded, prepared, mixed or dispensed except by or under the direct supervision of a registered Pharmacist, and that anyone who contravenes the provisions of the Act will be punishable with imprisonment for a term which may extend to 6 months or fine which may extend to Rs. 1,000 or with both. The Government have therefore decided to extend further the last date for receipt of applications up to 31st December 1950, to give an opportunity to persons who have not so far applied for registration, to do so without delay.

Details regarding the qualifications for registration, the fee payable and other particulars can be had from the Registrar, Pharmacy Registration Tribunal, No. 5, Rosary Church Road, Mylapore, Madras-4.



SCOUTING IN PICTURES

Top: A patrol of boys in search of adventure

Centre: A non-scout interested in scouting makes enquiries

Circle: Investiture ceremony—a new entrant receives scarf

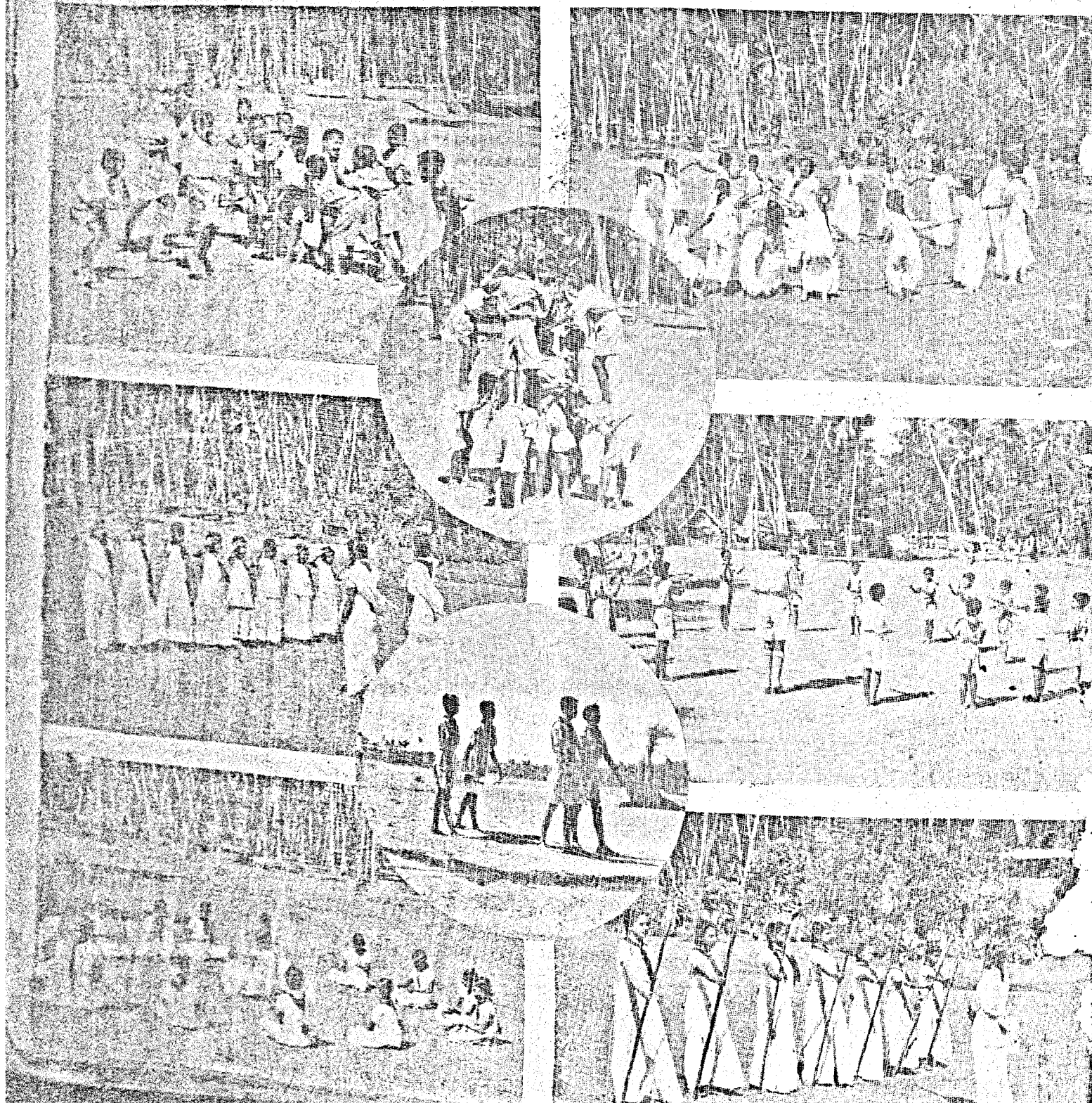
Right: A scout signals from an improvised tower

A PAGE FROM SCOUT LIFE

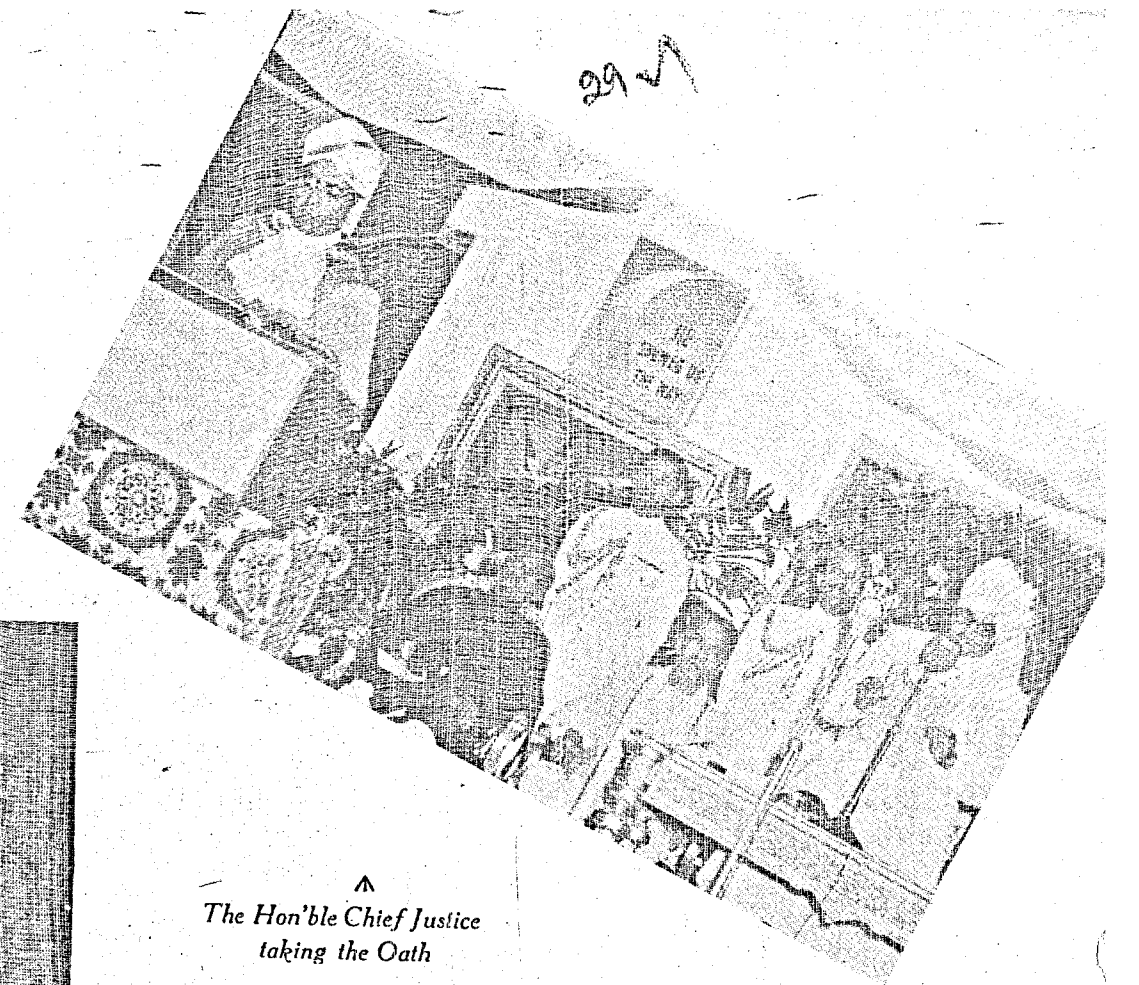
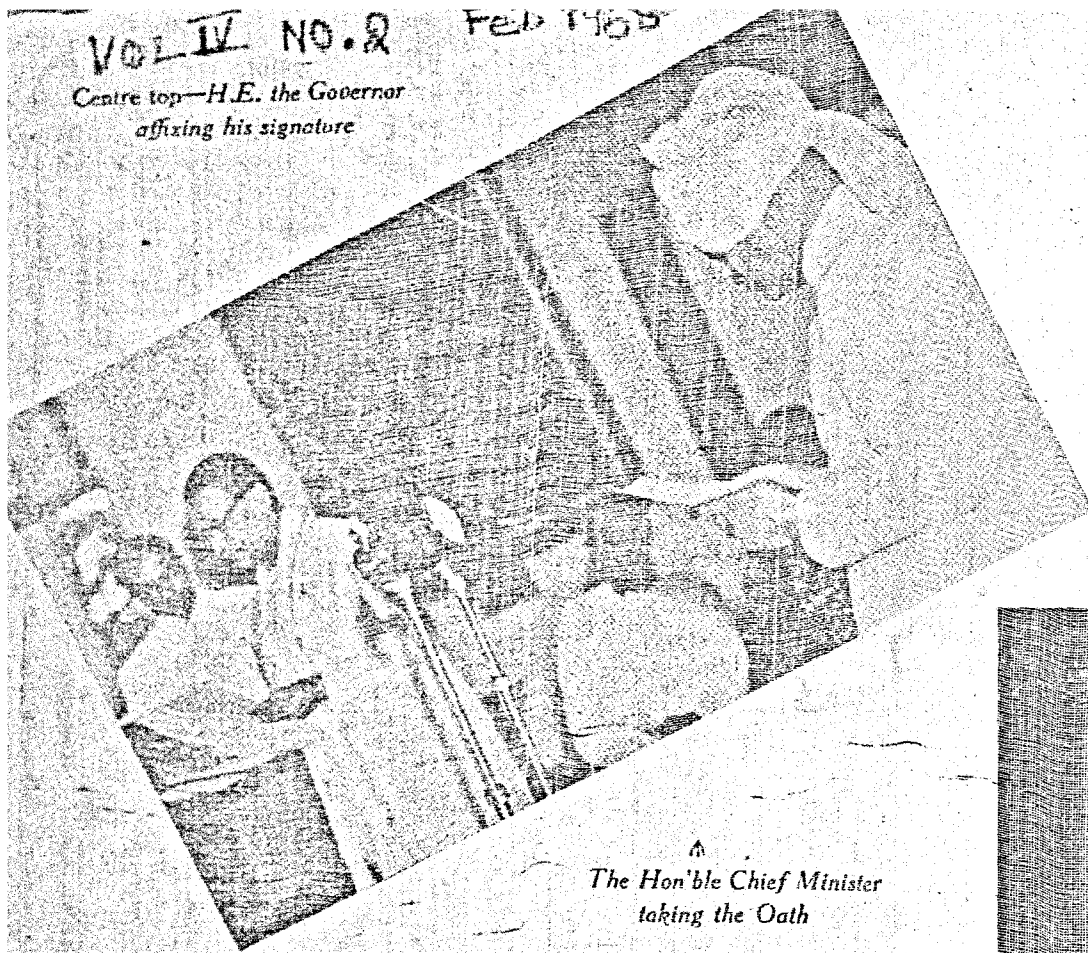
Left : Cubs in happy mood. Right : Bulbuls caught at play. Centre left : Bulbuls salute their leader.

Centre right : Community singing. Bottom left : Handicraft class. Bottom right : A patrol at staff drill.

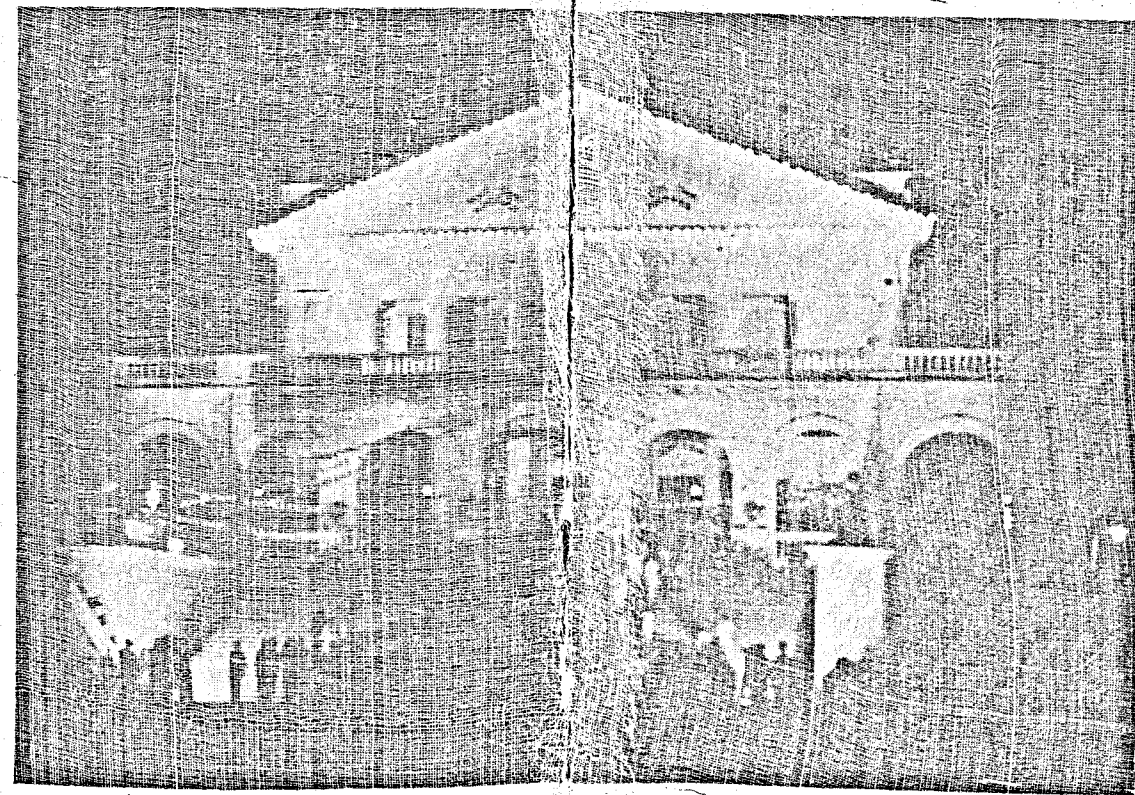
Circle top : Pyramid. Circle bottom : Scouts carrying stretcher.



Centre top—H.E. the Governor
affixing his signature



The Hon'ble Chief Minister
taking the Oath



The Hon'ble Chief Justice
taking the Oath

SWEARING-IN CEREMONY

AT RAJAJI HALL

Dr. T. S. S. Rajan.

Sri M. Bhaktasalam.

Sri B. Gopala Reddi.

Sri Madhava Menon.

Sri H. Sittarama Reddi.

Sri A. B. Shetty.

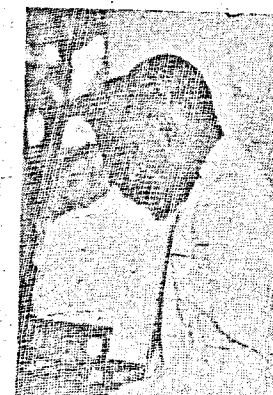
Sri K. Chandramouli.

Sri B. Porameswaran Reddi.

Sri N. Sanjeeva Reddi.

Sri C. Perumalsamy.

Mr. Roche Victoria.



EDUCATION

estimated cost of Rs. 6 per head works about more than 11 crores of rupees. The organizational difficulties are, in respect of schools and teachers. In respect of schools all the existing buildings can be used after school hours provided funds are found for lighting arrangements. In respect of teachers, the difficulty cannot be easily overcome. But in Western Countries University students as well as farmers' clubs played a notable part in wiping out illiteracy.

It has been said that it is very difficult to bring adults to attend classes: experts have, therefore, suggested a different technique for their education. Dr. Labhash has evolved a pictorial method in which a reduced number of letters are associated with well-known objects. Another method is by the employment of Cinema and Radio. Whatever be the methods adopted success depends upon the co-operation of the people with the Government.

The South Indian Adult Education Association is concentrating its efforts in this direction. It has a Central Committee with representatives of 23 organizations. The Honourable Minister for Education is the President and Honourable Mr. Roche Victoria is the Vice-President.

Education Through Art in
Madhya Pradesh

With a view to giving a fillip to educational and cultural activities, the Central Province Government have, it is learnt, enlisted the services of the "Sarvodaya Kala

Mandir" a cultural squad of Bombay. The squad will give demonstrations at selected Social Education centres in the province. It has already commenced its work from Malkapur centre in Berar on the 27th December 1949 and is expected to cover about a dozen other places in the province. The object is to show through these demonstrations how the local institutions of folk songs, folk dances and similar other popular media of art and cultural recreation could be harnessed for the propagation of the "Sarvodaya" ideal of society.

Adult (Social) Education

The Government of Madras have sanctioned a supplemental Adult (Social) Education Scheme, costing Rs. 1.57 lakhs, for introduction in the current year. Five hundred adult schools are proposed to be started immediately, the schools being attached to colleges, secondary schools, and higher elementary schools. A bonus of Rs. 1 per adult, who has become literate, has also been sanctioned by the Government.

Harijan Day

The Government of Madras have directed that the "Harijan Day" be continued to be observed on the 30th of each month as hitherto, for a period of one year, commencing from January 1950. In February 1950, the Harijan Day will be observed on the 27th.

CO-OPERATION

Progress

The Government are fully alive to the immense utility of the co-operative movement as an agency for the promotion of rural prosperity and it is therefore applying the co-operative principle to all possible spheres of rural welfare. Rural Credit Societies have also received a fillip and they are being expanded to undertake multi-purpose projects. There are 11,689 rural societies covering 51.21 per cent of the villages and 14.08 per cent of the rural population. Of these, 3,659 societies have undertaken multi-purpose work. Co-operative movement has also played a notable part in food production and in the distribution of food-stuffs. There are Land Colonization Societies, Agricultural Societies and Tenants Societies and all these are doing good work.

During the year 1948-49, the Central Land Mortgage Bank issued Rs. 77.73 lakhs of loans to the Primary Land Mortgage Banks and the debentures issued by it are guaranteed by the Government up to a limit of little over 5 crores. The total amount of loans due to the Central Bank from the Primary Land Mortgage Banks at the end of June 1939 was Rs. 3.32 crores. The Madras Provincial Co-operative Bank which is the apex of the Co-operative Banks of the Province for providing short-term and medium-term credit disbursed to the tune of Rs. 7.84 crores as loans and cash credits to the Co-operative Central

Banks in the districts, while the total amount of loans and cash credits issued by the latter to their affiliated societies was Rs. 47.44 crores. At the end of June 1949, there were 1,764 Primary Co-operative Stores and 23 District Co-operative Central Stores in the Province. The District Central Stores sold goods worth more than Rs. 25 lakhs during the year. The Primary Stores Societies similarly distributed goods for more than Rs. 23 crores. The Madras Handloom Weavers' Provincial Co-operative Society is a magnificent example of what a producers' corporation can do. A successful beginning was made in the tackling of the housing problem. During the year, Rs. 73.48 lakhs as loans were issued to the Co-operative House Building Societies. The progress made by the Ex-servicemen's Co-operative Societies has been equally remarkable. During the year, the Co-operative Workshops for Ex-servicemen produced goods worth more than Rs. 4 lakhs of rupees. The co-operative movement also assisted ex-tappers in their rehabilitation. There were 1,488 Co-operative Jaggery Societies at the end of June 1949. These were for ex-tappers and they produced jaggery amounting to 25 lakhs of maunds and valued at more than one crore of rupees. One hundred and eighty Milk Suppliers' Organizations were also formed for the benefit of the ex-tappers and ex-addicts and they sold milk worth more than eleven lakhs of rupees.

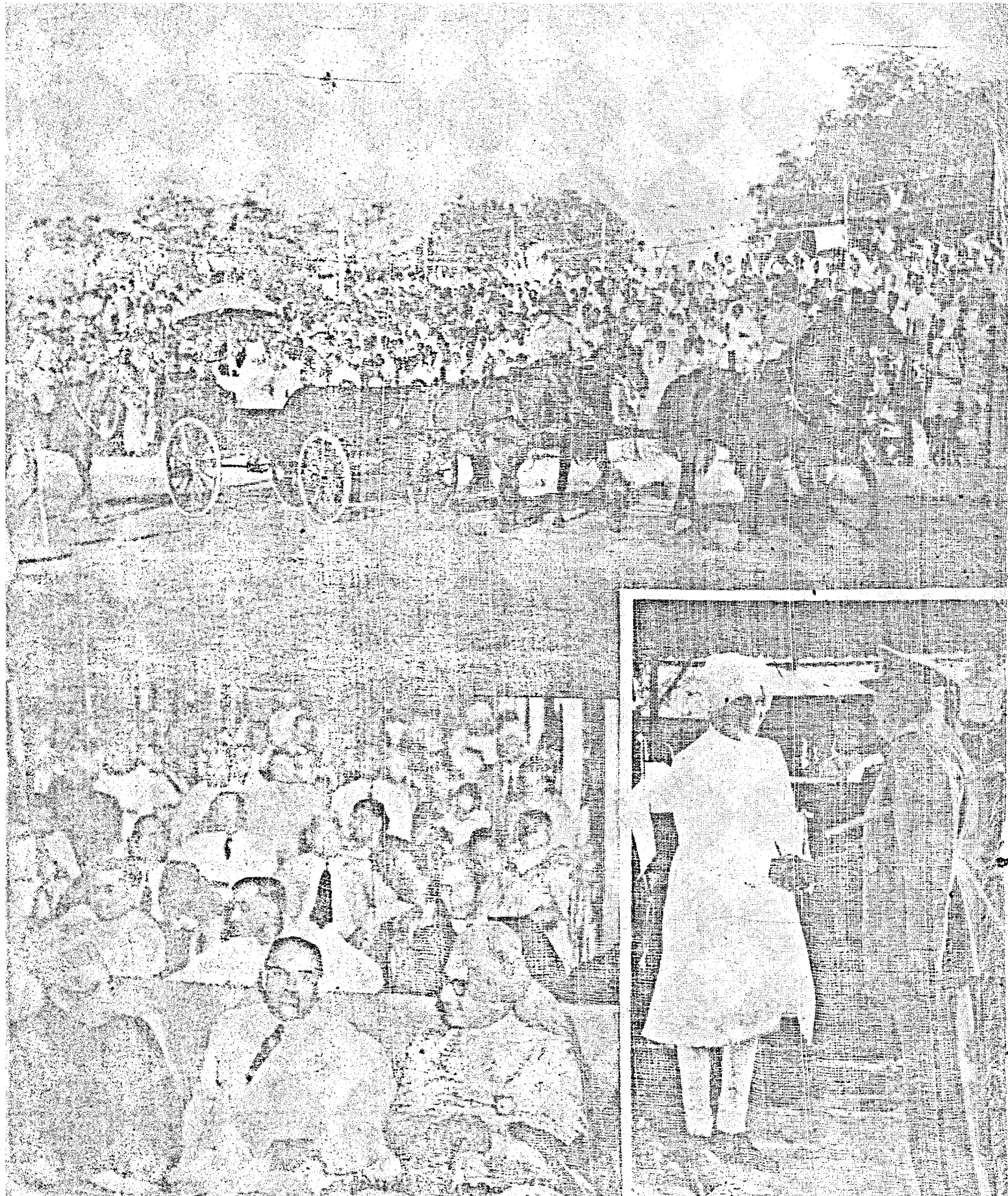
Co-operation and Rural Uplift

India is essentially a country of agriculturists and any movement which has the object of bettering their lot must deal with all aspects of village life and secure for the villager not only better farming and better business but also better living conditions both as an agriculturist and as an artisan. The co-operative method places credit within his easy reach. But credit alone, however cheap it may be, cannot solve his difficulties. It should be accompanied by the means to repay the loan not only by making agriculture pay better but also, where possible, by supplementing his income. It should enable him to sell his crops conveniently, that is, at a time when prices are favourable and at a place where he can obtain better prices. Prices are rarely favourable to the ryot at the harvest time when much of the crop is in the market and at his own place where the local dealer, who might also happen to be the local money lender, will fix an arbitrary price and impose his own grading, weights and measures. In order, therefore, to ensure that the borrowing ryot uses credit to the best advantage, money is lent to him on condition that he sells his produce through the sale society or the marketing society to which the local rural credit society is affiliated. The marketing society stocks his produce in a godown, waits for a favourable market, grades

and processes the produce for the market and by a collective sale of the produce obtains a better price for him than he can in his own village. This is known as the "Controlled Credit System." This system also ensures that the loans sanctioned are disbursed to members in instalments as the cultivation operations progress and the loan is collected from the sale proceeds of the crops raised.

The next problem of the agriculturist is subsidiary occupations. The ryot must find some productive occupation when he is not engaged in agriculture and also for the members of his family whose services may not be required in cultivation. There is also the larger problem of relieving the prevailing pressure on the land. The population in India dependent on agriculture is increasing while that of the population engaged in non-agricultural pursuits is decreasing. This state of affairs is depressing indeed considering that the cultivable land available per head of population engaged in agriculture is very small. To remedy these conditions, we must aim at not only increasing the income of the ryot from land, but also to transfer some of the excess population for farming to non-farming pursuits. Agricultural improvement societies and even rural credit societies have played an

A basic education class



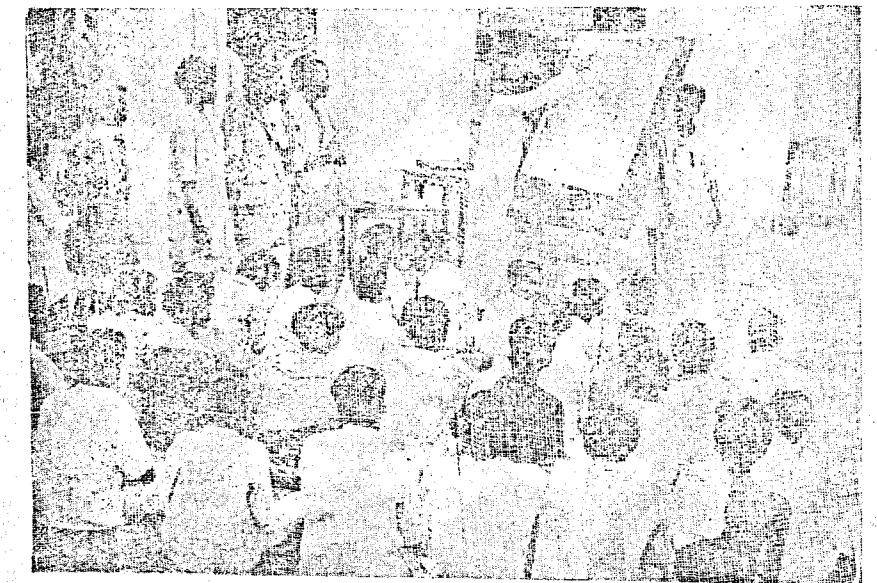
EDUCATION

Adult Education

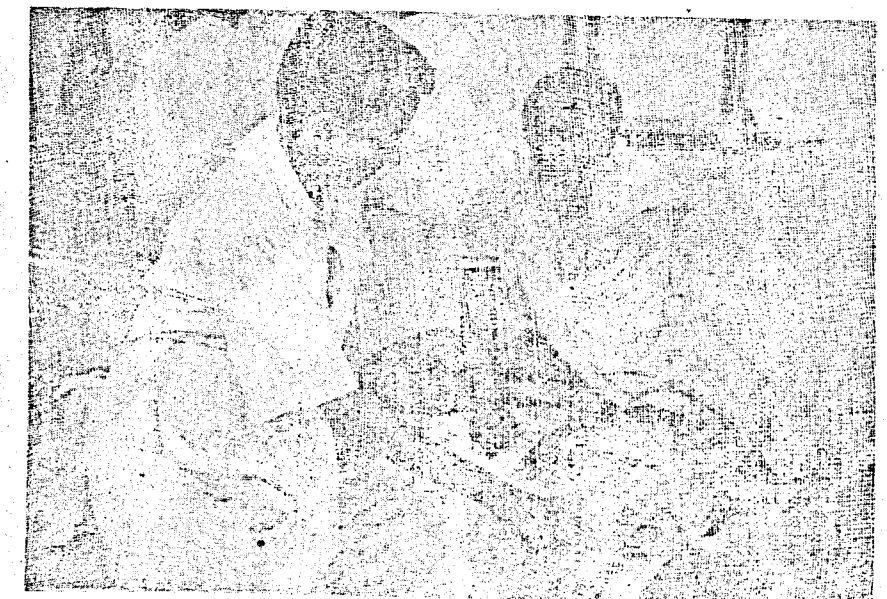
The first South Indian Adult Education Week is being celebrated this month. The importance of adult literacy in the context of a democratic India cannot be overstressed. It has been said that an illiterate electorate is a danger to democracy. In this country, the percentage of literacy is poor and considerable leeway has to be made. It is, however, a happy augury that there is a widespread awakening to this fact and efforts are being made on all sides to hasten the progress of adult education.

The problem of Adult Education is a stupendous one. It is computed that illiterate adults in this Province between the years of 12 and 45 number 19 millions. This is nearly five times the number of school going children. Even on a Five-year Programme which was considered the problem of Adult Education is, therefore, nearly of the same size as that of elementary education. This programme is beset with a number of difficulties, viz., Financial, Organizational and Personnel. Financially, for educating 19 million at the

An adult education class is in full swing



A patient learner



← 4th inset page

State Drive of H.E. the Governor
to the Corporation Stadium on
the Republic Day.

CO-OPERATION

effective part in increasing the productivity of the ryots' land, by distribution of improved seed, fertilizers and improved agricultural equipment and many other means of help. Co-operative Schemes of Land Colonization organized for landless classes have brought tracts of waste lands in many places under the plough and have served to relieve this pressure.

Among subsidiary occupations for the agriculturist, the handloom industry offers the greatest promise. It is the oldest, the most extensive and well-organized rural industry, particularly in Madras which is the largest producer of handloom cloth. The industry has many advantages for rural areas. It can be carried on without the need for a large capital, its operations can be conducted at home by members of a family and a market is readily available for the produce.

Next to land, cattle is an important form of agricultural wealth to the ryot. Cattle supply the motive power such as for ploughing, water-lifting for irrigation, supply of manure, etc. If he has milk producing cattle, it is an additional source of income to the villager. But though most of the milk is produced in rural areas, its market lies mostly in urban areas. Co-operative societies have helped to bring together milk producers to secure for them improved methods of milk production as well as better income by a collective sale of milk. Co-operation has also been applied to many other undertakings providing subsidiary occupations for the villager in the matter of organizing production, financing it and finding a market for the commodities produced. They are too numerous to mention here. The following list will give an idea of the nature and variety of occupations which can be brought

within the movement. We have societies for poultry farming and egg production, for carpet and cumbly weavers, coir workers, mat workers, bullock cart makers, carpenters and oil producers. Recently the Government have placed a handsome grant at the disposal of the Registrar for payment of subsidies to societies for the purchase of tools and equipment and for meeting the cost of establishment, etc.

Co-operative societies are the most suitable agency for rehabilitation of ex-tappers and ex-addicts and for general rural reconstruction work. Employment has been provided to the ex-tappers through the organization for them of jaggery manufacturing societies, milk-supply societies, land colonization societies and other industrial co-operatives. Of these, by far the most important are jaggery manufacturing societies which have provided employment to about 55 per cent of the ex-tappers thrown out of employment. From the experience gained so far, it is found that, in order to enhance the usefulness of the societies, their objectives must be broadened to cover all aspects of village life. Hence it is that the formation of multi-purpose co-operative societies is being encouraged.

On 30th June this year we had 21,000 societies functioning in the Province, of which nearly 15,500 societies were for the agricultural population doing credit or non-credit activities. We have nearly reached the target fixed for serving 50 per cent of the villages and 30 per cent of the population. When it is reached fully, we will find co-operative societies taking a far greater share than at present in shaping the economic prosperity of the village.

—Extracts from a recent Broadcast.

Assisting ex-tappers

One of the main problems that has arisen in the wake of prohibition is the loss of the sole means of livelihood to thousands of tappers who were thrown out of employment, on account of the introduction of prohibition. Unaccustomed to agricultural labour and unwilling to take up coolie and other work, many of these ex-tappers wanted an avocation similar to their age-long profession of tapping. The Government had permitted the tapping of palmyra trees for sweet juice and its conversion into jaggery. Tappers are issued licences only if they had been bona fide ex-tappers and also members of any co-operative society.

The jaggery manufacturing co-operative societies in Tiruchirappalli district have made rapid strides. The total paid-up share capital of these societies is Rs. 20,145.

Almost all the jaggery societies have introduced thrift schemes. There are now 1,013 subscribers and the hundi collections amount to Rs. 5,012.

The money so collected was not allowed to lie idle. During the off-season, it was found that many of the ex-tappers required some funds for domestic expenses.

Further some wanted money for productive purposes, such as sheep breeding, maintenance of poultry, purchase of cattle, etc. As a result, 33 of the societies have taken up the issue of loans for these purposes. Five hundred and sixty-two loans amounting to a sum of Rs. 10,691 were advanced to ex-tapper members of the Jaggery Manufacturers' Co-operative Societies in the district. This type of small financial help is so much appreciated by the members that they are very regular in repaying the amounts on or before the due dates.

On the production side, good work is being done by these societies.

In 1947-48, 87,118 maunds of jaggery were produced and sold for Rs. 4,10,470. In 1948-49, 69,963 maunds of jaggery were produced which fetched a sum of Rs. 3,69,501 by their sale. The 1949-50 jaggery season is just commencing.

There are 42 Jaggery Manufacturers' Co-operative Societies in this district and they are functioning without any financial assistance from the Central Bank or Government. They depend for their working completely on their

CO-OPERATION

are capital and home safe deposits from members. However, many of them are affiliated to the local District Central Bank. For the sale of the jaggery produced by

the members, all of these societies in Karur taluk have become members of Karur Co-operative Marketing Society, Limited.

Co-operation helps them

The Jathesya Quarry Workers Co-operative Labour Contract Society, Limited, Vijayavada, was registered on 7th July 1949 and started its work on the same day. The objects of the society were to promote the economic interests of the Labour Members of the society and to find suitable and profitable employment for them by obtaining contracts from Government, Local Bodies, Municipalities and others, and by executing these contracts through or with the help of the members and to encourage thrift, self-help and co-operation among the members. The Society may also act as agent for the joint purchase of the domestic and other requirements of its members.

There are about 3,000 quarry workers and 1,000 earth workers in Vijayavada. There are about half a dozen

quarries in the locality under the control of the District Board, the Revenue and Public Works Departments. Generally the departments give contracts to private persons who are capitalists and they were said to be enjoying huge profits at the expense of the poor labourers from time immemorial. It was to improve the lot of the labourers that this society was organized and started. When once the labourers learn to manage their own affairs it is expected that communism may gradually die out. The society started with a membership of 21 and paid-up share capital of Rs. 100 and the number of members as on date is 187 and the paid-up share capital of Rs. 935.

It is a remarkable fact that within a period of five months the society has found work for about 700 labourers and still there are vast possibilities for its expansion.

Co-operative Farming

Co-operative farming which can prevent the loss of production arising out of extreme fragmentation of land that is prevalent in India is discussed in a brochure just published by the Economic and Statistical Adviser to the Ministry of Agriculture.

The average size of an agricultural holding in India has been estimated at between 3 to 5 acres as against 145 acres in the U.S.A., 40 in Denmark, 25 in Sweden, 21.5 in Germany and 20 in England. Even this small average is further falling. Besides, each individual holding is not merely small but often is scattered over a wide area in tiny bits, which stand in the way of their economic cultivation. Increased agricultural production, which is necessary for a country at any time, is of vital importance to India at the present moment as land constitutes the fundamental factor for solution of a number of pressing problems with which the new government has been faced. Resettlement of the ex-servicemen, rehabilitation of displaced persons, abolition of zamindari and finally, the Grow-More-Food campaign, all depend on how the available land is put to the maximum economic use.

The brochure, therefore, advises cautions, gentle approach with formation of multi-purpose societies at the outset, followed by intense co-operative education which would put before the farmer the benefits of co-operation in a concrete way.

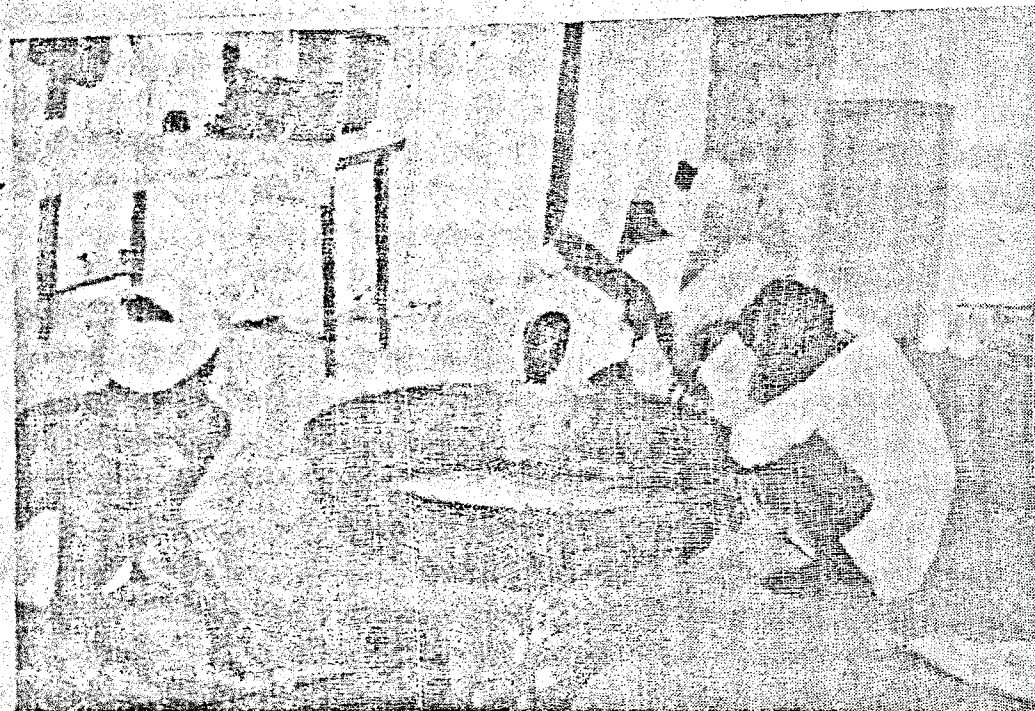
This spirit of co-operation which already exists in a smaller degree needs to be developed. As an immediate

measure, co-operation aims at increasing the production for making the country self-sufficient in food and industrial raw material; as a permanent measure of improvement, it affords the best means of rationalising agriculture and attaining a higher order of social and economic life in keeping with the principles of democracy and self-government. To the State it provides a handy and useful agency for enforcing its production programme.

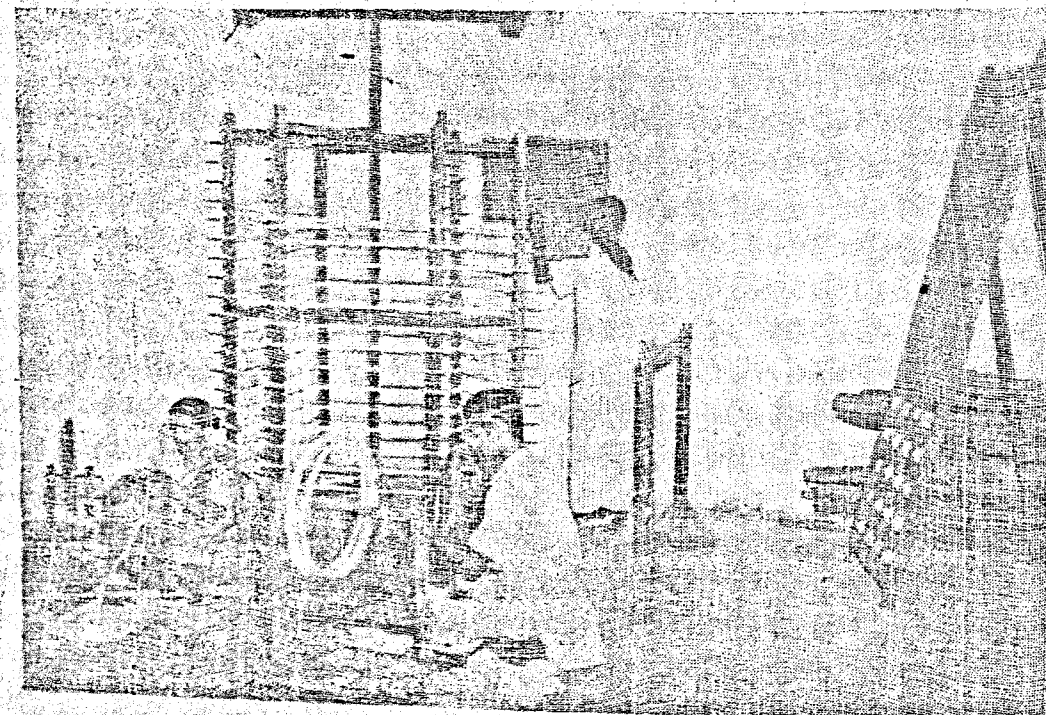
Multi-purpose societies aiming at not only increasing the production of the land but also to provide marketing and credit facilities, seeds, manures and other services and for development of cottage industries should be formed. The next step should be some measure of consolidation of holdings so that compact areas could be available for cultivation. Such multi-purpose societies should be co-terminus with the village, as far as possible, and Government assistance should be given to encourage their formation in every possible way. In addition to providing the necessary guidance and technical assistance, encouragement in the form of a subsidy towards meeting the cost of management for a few years at the beginning and reduction in assessment for the first few years are recommended. Fertilisers and manures, improved seeds, implements and other capital equipment should also be made available to the society on cheap terms.

Newly reclaimed lands, the brochure points out, should be allotted only on the understanding that co-operative farming will be introduced by the allottees.

CO-OPERATIVE ENTERPRISES



Teynampet ex-lappers' jaggery manufacturing co-operative society. Jaggery is being prepared.



Main Bridge Factory of the Provincial Handloom Weavers' Co-operative Society. Warping, pirn winding, bobbing, winding etc. are being done here.

HEALTH

Concession to Backward Classes

With a view to promote the uplift of the Harijans, the Government have already ordered that a specified area in a block of forest coupe may be leased to the Harijans of that locality at a rate equal to the average of the revenue derived in respect of the coupe during the preceding five years, provided they form themselves into a co-operative society for the purpose and that the rest of the area should be sold in auction as usual. It has been represented to Government that the concession granted to Harijans should also be made applicable to other Backward Classes. The

Government have reviewed the position and have issued orders that the concession be extended to Backward Classes (meaning thereby not only members of the Scheduled Castes and Aboriginal and Hill Tribes but also "Backward" Sections of Hindus, Muslims and other communities). The concession will be force for 5 years to begin with. The lease amounts are however liable to variation during the five-year period with reference to the trend of bids for coupes sold in auction.

Problems of Rural Medical Relief

India lives in villages. Nearly 75 per cent of her population are rural folk scattered over the thousands of villages in the country. The improvement of the condition of these villages is one of the major jobs of the present Government. Among other disabilities, the villager is at present without sufficient medical facilities within his easy reach. It has been said that while 75 per cent of the population live in villages; 75 per cent of the doctors practise only in urban areas. Despite numerous practical difficulties, the Government are tackling the problem of rural health with zeal and enthusiasm.

The number of rural dispensaries of modern medicine sanctioned by Government is 428 and of these, only 256 are functioning. Eighty-five rural dispensaries remain closed for want of Rural Medical Practitioners, 78 were converted into rural dispensaries of other systems of medicine and nine were converted into Primary centres under Post-war Scheme.

The number of medical institutions of the indigenous systems of medicines is 578 out of which 416 are now in charge of L.I.Ms. and the rest are in charge of practitioners registered under class 'B' of the Central Board of Indian Medicine, Madras.

In spite of the best efforts of the Government and the local bodies, a few medical institutions have to be kept closed for want of suitable medical practitioners to run them. To encourage qualified medical practitioners to serve in rural areas, Government have this year enhanced the subsidies payable from Provincial Funds.

The Public Health Sub-Committee considered the question of the Medical Relief afforded to the rural population in general. The post-war plans in this Province have been framed on a twenty-year basis. There will be in the post-war years three types of organization in the Province, namely,

(1) a combined public health and medical centre to serve a group of villages or normally 10,000 to 12,000

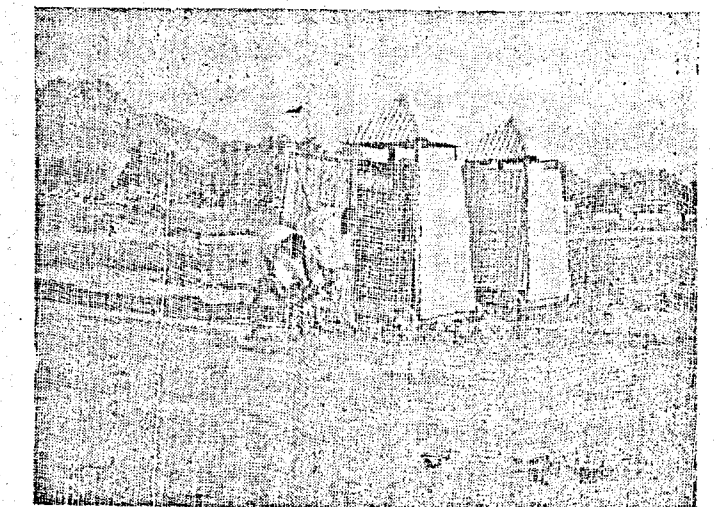
persons, the Government's formula being that there should be no village farther than five miles from a village health centre;

(2) a group or a taluk centre which will exercise supervision over the activities of the village centres; and

(3) the district centre.

The Post-war Scheme contemplates the provincialisation of all the existing local fund and municipal medical institutions in order to retain the administration in the hands of the State so that all the medical institutions may be under the control of the Provincial head for purposes of according equal treatment and equal prospects, contentment and efficiency and arranging for refresher courses whereby the professional knowledge of all concerned may be kept up to date.

It was originally proposed to open 150 primary centres (combined medical and public health centres) and 25 taluk



A latrine on the Wardah model

HEALTH

public health centres in the first quinquennium of the post-war period, the opening of these centres being spread over the first five-year period at the rate of 30 primary centres and five taluk group centres in a year. The first instalment of 30 primary centres and five taluk centres has already been ordered to be started during the year 1948-49. Most of the centres are functioning now.

In addition to the above, the Government have sanctioned the opening of 31 additional primary centres during the current year. But the opening of these centres is kept pending in view of the existing financial stringency. The expenditure incurred on primary centres during the six months of 1949-50 is Rs. 73,306. When the scheme is completed every village will have adequate medical and maternity aid and the standard of the health of the villages will be maintained at a higher level.

Maternity and child welfare work consists mainly of care and supervision of ante-natal cases, internatal care, care of infant and mother during the puerperal period, care of infant and pre-school child, supply of milk and shark liver oil to expectant mothers and infants and propaganda. There are 382 maternity and child welfare centres in the Province and 100 women medical officers, 112 health visitors and 814 midwives are employed in them. In rural areas, a Woman Medical Officer is usually in charge of eight centres and is responsible for supervision of 2,000 cases of labour annually conducted by midwives. Each

health visitor looks after two health centres and carries out the follow up of 300 cases and each midwife conducts 120-150 confinements on the average per year. During 1948, the number of births conducted by midwives under the scheme is 116,609. The amount spent on maternity and child welfare work in the Province during 1948 is Rs. 15,98,738, the Government's share thereof being Rs. 2,30,908.

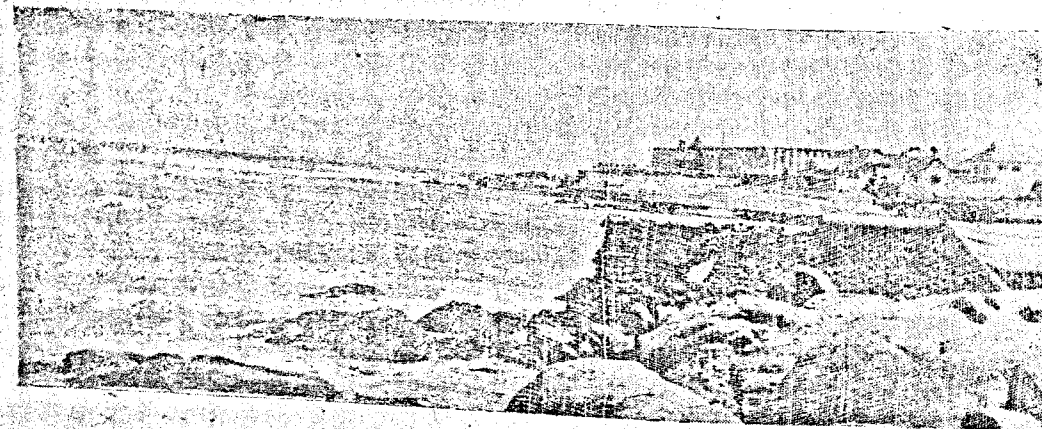
The nutrition work in the Province is carried out by a Central Nutrition Bureau—with Nutrition Officer, a laboratory with necessary technical assistance and by two Regional Nutrition units, each under a Regional Nutrition Health Officer with three health inspectors and necessary clerical staff—each unit for the present working in 12-13 districts. During 1948, 67 diet and nutrition surveys among the poorer classes in the various districts had been carried out and propaganda was carried out on the deficiencies noticed, and how to make good deficiencies detected by incorporation of locally grown foodstuffs at low cost within the means of the population groups. Publicity and propaganda on nutrition were carried out by participation in the various exhibitions organised in the Province. A sum of Rs. 45,100 was spent under the Nutrition Budget during 1948-49. The question of reorganization of this Nutritional Branch is under consideration.

The total expenditure on Public Health of this Province amounts to nearly 44 lakhs of rupees.

Jobs for Doctors

Most of the people know the useful work that is being done by the World Health Organization, generally spoken of as WHO. This organization is dedicated to the promotion of public health all over the world. During the brief period of its existence, it has demonstrated the manifold ways in which it could assist the promotion of the health of world's growing population.

This organization is anticipating the need for additional staff and it has accordingly issued a notification specifying the categories of officers required together with their qualifications. These categories include the chief of the section of Public Health Organization, Medical Officer and Nurses of different cadres. The qualifications which are necessary for these jobs and the terms of service have also been specified by the Health Organization.



INDUSTRY

Post-War Services Reconstruction Fund

"The Post-War Services Reconstruction Fund" is intended for the collective benefit of persons of Indian domicile (including subjects of Indian States) who served in the Defence Services during the war of 1939-46 in the ranks including non-combatants, but excluding Commissioned Officers, and their dependants and may be used—

(a) on facilities and amenities to ex-servicemen, e.g., scholarships and stipends to supplement those provided by Government;

(b) provision of buildings, libraries, etc., in connexion with the Sailors', Soldiers' and Airmen's Boards or in heavily recruited areas;

(c) special measures for the health of soldiers' families, e.g., provision of, maternity benefits, appointment of health visitors, etc.;

(d) specific schemes to help groups of ex-servicemen, to resettle them in civil life such as co-operative workshops, co-operative buildings, special technical training facilities, e.g., for tanners, weavers, etc., purchase of agricultural implements, bullocks, etc., in connexion with co-operative farming, group schemes of rural housing for the benefit of and to be carried out by, ex-service personnel.

The objects of the Fund do not extend beyond the Province of Madras.

ALLOCATION OF FUND

The Government of India decided that the amalgamated Fund called "The Post-War Services Reconstruction Fund" referred to above less 20 per cent kept as a Central Reserve should be divided between various Provinces and States, the share of each Province



A trainee at the wheel-pottery section



Calico printing forms one of the useful trades taught

INDUSTRY

ACTIVITIES OF THE COMMITTEE

The Committee has held 13 meetings so far. Sixty-six claims had been scrutinized by the Committee and grants and loans amounting to Rs. 24,80,761 and Rs. 24,97,575 respectively, sanctioned to deserving cases exclusive of recurring grants on certain schemes which are dependant on ex-servicemen's *per capita* expenditure. Some of the organizations for which the grants were sanctioned may be enumerated here. These include the Madras Sappers and Miners Hostel, Madras; the Madras Regimental Hostel, Wellington; monthly grants to ex-servicemen and their dependants suffering from tuberculosis; scholarships for children of deceased and disabled ex-servicemen; Boys Hostel and Child Welfare Centre, Bangalore; stipends to ex-servicemen undergoing Sanitary Inspectors' training; Land Colonization Schemes; provision of beds in the Lady Willingdon Leprosy Settlement for the benefit of ex-servicemen (subject to further confirmation by the Committee); grant to the Provincial Welfare Fund for the benefit of ex-servicemen and Co-operative Motor Transport Societies, etc.

Loans have been granted for Co-operative Motor Transport Societies and Land Colonization Schemes.

The Committee *inter alia* will bestow special consideration on—

- (a) schemes for teaching trades to disabled men;
- (b) medical care of the disabled, especially T.B. patients;
- (c) rehabilitation of disabled men;
- (d) collective resettlement of ex-servicemen in life;
- (e) education of ex-servicemen and dependants of ex-servicemen killed or disabled;
- (f) educational assistance to needy children of ex-servicemen;
- (g) collective training of children of ex-servicemen;
- (h) health services for families of ex-servicemen; and
- (i) ex-servicemen's organisations.

It is in the interest of all, that ex-servicemen and their dependants who need assistance, are helped. It is only an elementary form of recognition that the country should stand by those who stood by her in her hour of need. There are of course very many ways in which they could be helped but un-co-ordinated expenditure may prove wasteful and may not yield benefits to the desired extent. The Committee's aim is to see that the money is spent in the most beneficial manner and that as many ex-servicemen as possible are helped without doing away with their initiative and enterprise.



Crayon manufacture. Scientific methods and careful handling produce enough crayons

The Committee are precluded from making grants to individuals and therefore no applications from individual ex-servicemen or their families can be considered. But the Committee will be glad to allot funds at their discretion to organisations or institutions for any collective benefit of ex-servicemen or for any other useful cause which would ultimately bring benefit or advantage to ex-servicemen.

The Honorary Secretary, Post-War Services Reconstruction Fund, will be glad to furnish any further information on request.

Applications for contributions from the Fund for the purposes mentioned above from such organisations and committees should be sent to the Honorary Secretary, Post-War Services Reconstruction Fund, Government House, Guindy, Madras Governor's Camp P.O., India.



LABOUR

Supply of Skilled Labour

The Hon'ble Sri Jag Jiwan Ram, Labour Minister, during his recent visit to Madras, appealed the employers for their support to the Technical and Vocational Training Scheme for adult civilians which the Labour Ministry has decided to introduce.

Under this scheme, the Ministry proposed to train 10,000 persons a year in about 30 technical trades and an equal number of vocational trades with a view to providing a steady supply of skilled workers for India's industries. The training will be free and 50 per cent of the trainees will be given a monthly stipend of Rs. 25 per mensem. In addition, those trainees who worked near moving machinery will be supplied with free workshop clothing once every four months and also free facilities for recreation and medical treatment during training at the Labour Ministry's Training Centres.

The training will be of two types: one, the Technical Training extending over a period of two years—eighteen months of which will be spent at a training centre and

the remaining six months at an industrial undertaking or at the training centre itself as may be convenient to enable the trainee to acquire practical experience of production work as apprentices in the trades of their choice. The other type of training which will be in small scale and cottage industries will extend over a maximum of twelve months.

In the course of his speech, the Hon'ble Sri Jag Jiwan Ram said that he recognized that the number of seats provided for training every year, viz., 10,000, was not quite sufficient to meet the demands of industrialists. That capacity, however, represented only the small beginnings in the direction, and if the scheme met with satisfactory response, the Labour Ministry would not hesitate to increase the number. He hoped employers would avail themselves of the scheme and co-operate with Government as best as possible.

The Labour Ministry expects to give effect to the scheme in March 1950.

Labour Disputes

The Government have enforced the award of the Industrial Tribunal-I, Madras, in the dispute between the workers and the management of the Mysore Vegetable Oil Products, Limited, Madras. Government have ordered, the industrial dispute between the workers and the management of Messrs. Gramophone Company, Limited, Madras, to be referred for adjudication to the Industrial Tribunal, Madras-I. The Government have ordered the Industrial dispute between the workers and the management of Indian Leaf Tobacco Development Company, Limited, Chirala, Guntur district, to be referred for adjudication to the Industrial Tribunal, Vijayavada. The Government have referred the dispute between the clerical staff and the management of the Indian Leaf Tobacco Company, Limited, Chirala, to the Industrial Tribunal, Vijayavada. The Labour Officer, Visakhapatnam, has settled the dispute in the Sree Ramachandra Spinning Mill, Pandalpaka. The Commissioner of Labour, Madras, has settled the dispute in the Diamond Machinery Manufacturing Works, Vijayavada. The Government have enforced the award of the Industrial Tribunal, Vijayavada, in the industrial dispute between the workers and the management of the beedi factories at Kalahasti, Chittoor and Puttur. The workers of the Commonwealth Tile Factory, Codacal, Malabar district, staged a stay-in-strike on 25th November 1949 demanding reinstatement of 25 discharged workers. The Labour Officer, Kozhikode, intervened and brought about a settlement of the dispute. The workers resumed work on 29th November 1949. There was a partial strike in the Commonwealth Weaving Factory, Cannanore, Malabar, on 6th December 1949. The workers resumed work on 7th December 1949 and the Factory is working normally.

The Government have referred the dispute between the workers and the management of the Meenakshi Mills, Mathurai, to the Industrial Tribunal, Mathurai. The Government have referred the dispute between the workers and the management of the Madura Knitting Company, Mathurai, to the Industrial Tribunal, Mathurai. The coal workers (for unloading from boats and loading in railway wagons) at Tuticorin Port, of Madura Company, Limited, Tuticorin, struck work on the morning of 4th December 1949 consequent on reduction of supply of food (rationed). On the intervention of the Labour Officer, Tirunelveli, the workers resumed work at noon the same day. The Government have ordered the industrial dispute between the workers and the management of the Madura Mills, Tuticorin, to be referred to the Industrial Tribunal, Mathurai.

[First fortnight of December 1949.]

The Government have enforced the award of the Industrial Tribunal, Madras I, in the dispute between the workers and the management of the Maxwell Engineering Works, Madras.

The Government have also enforced the award of the Industrial Tribunal, Madras I, in the dispute between the workers and management of the Commonwealth Trust, Limited, Engineering Works, Mangalore.

The disputes between the workers and managements of Messrs. Simpson and Company, Messrs. George Oakes, Limited, and Messrs. Associated Printers, have been referred to the Industrial Tribunals for adjudication.

LABOUR

The workers of Messrs. Kutty and Rao (Engineering), Limited, Madras, staged a stay-in-strike on 27th December 1949 on account of the dismissal of a worker by the management on 26th December 1949. The Deputy Commissioner of Labour visited the company and persuaded the workers to resume work. The workers numbering 139 resumed work on 28th December 1949.

The Managing Director, Thompson and Company, Madras, has reported that the workers of the Press struck work for one hour on 14th December 1949.

The Government have enforced the award of the Industrial Tribunal, Mathurai, in the dispute between the workers and the managements of Tailoring concerns, Mathurai.

The Government have sanctioned the prosecution of the managements of the Pootu Mark Cigar Company and Meen (Fish) Mark Cigar Company, Kumbakonam, for reduction of wages, etc.

The workers of the Dalmia Cement Factory at Dalmiapuram, Tiruchirappalli district, staged a stay-in-strike on 16th December 1949 as a protest against the action of the management in allowing a contractor and his men (who are engaged in some construction work inside the Factory) to use the workshop attached to the Factory after the regular

workers closed their day's work in the workshop. The strike continued peacefully throughout the day.

The workers of Messrs. Tiffin's Barytes Asbestos and Paints, Limited, Cuddapah, have struck work from 9th December 1949 demanding payment of wages for the months of October and November 1949. The Inspector of Factories, Kurnool, is taking action against the management for non-payment of wages under the Payment of Wages Act, 1936.

The workers of Sree Ramachandra Spinning Mill, Pandalapaka, who went on strike from 29th November 1949, demanding the running of second shift, which had been stopped on 14th November 1949 due to accumulation of stock, have resumed duty on 15th December 1949.

The workers of Beam Scale Manufacturing Companies in Dowlashwaram, who are members of the General Industrial and Engineering Workers' Union, Dowlashwaram, have struck work from 26th December 1949, demanding festival holidays, holidays with wages, annual leave with wages, etc. The Labour Officer, Visakhapatnam is taking necessary steps in the matter.

[Second fortnight of December 1949.]

The I.L.O. and Asia

The role of the I.L.O. and the ideals it stands for were explained by Sir G. M. Evans recently in the course of a broadcast. He stressed the fact that Mahatma Gandhi himself pointed out the need for such an organization when he said "Freedom would lose its significance if the lot of the common man were not improved." He further emphasised how the I.L.O. is assisting the solution of problems connected with Asian Countries and denied that it was designed to meet the needs of the Western Countries only.

The I.L.O. was founded thirty-one years ago as an international agency to help in the establishment of universal and lasting peace by furthering social justice. It seeks by international action to improve labour conditions, raise living standards and promote economic and social stability. It is unique amongst international organizations because it is composed of representatives of Government, employers and workers. During the War itself, at its 1944 Conference, the members of the I.L.O. adopted what has since come to be known as the "Declaration of Philadelphia." This Declaration re-affirmed those vital principles—

That labour is not a commodity.

That poverty anywhere constitutes a danger to prosperity everywhere.

That freedoms of expression and of association are essential to sustained progress.

Re-affirmation of these principles was not enough. Positive action was necessary to attain them.

The Declaration of Philadelphia recognized this. It recognized that the I.L.O. had the solemn obligation of taking this action. How was this action to be taken? By furthering amongst the nations which are members of the International Labour Organization—there are now 61—the development of national programmes designed to achieve definite social objectives such as—

- full employment and a living wage
- extension of social security and medical care
- maternity protection and child welfare
- adequate food, housing and recreation
- the right to bargain collectively
- adequate health and safety measures
- equality of educational and vocational opportunity.

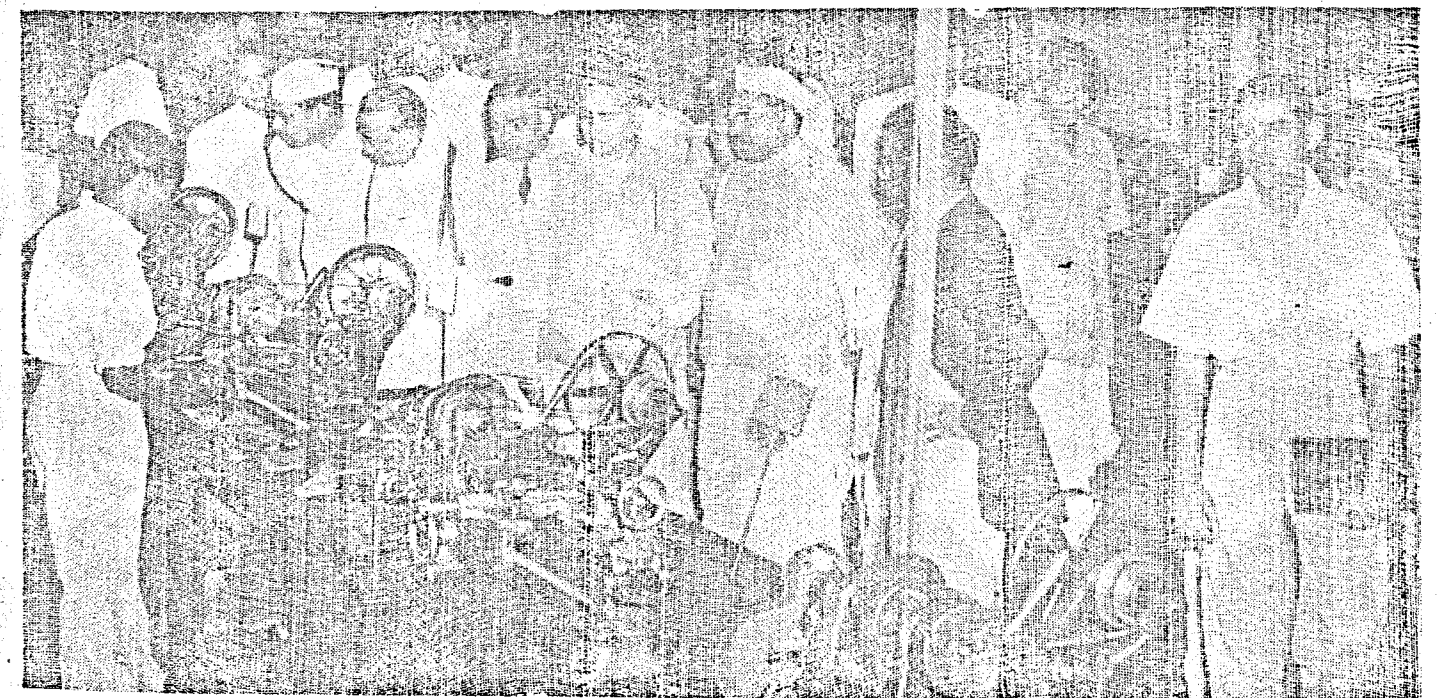
A number of Asian countries—India, Pakistan, Ceylon and Burma to name just a few—are of the I.L.O. and have contributed towards its work for some years. The I.L.O. is, in a real sense, a world organization. It is designed to raise the standard of living of people in all countries in all parts of the world. The need for special consideration of the problems created by social and economic conditions of Asian countries was recognized from the very inception of the organization in 1919. Various international conventions and recommendations adopted made special provisions for Asian countries. Nevertheless there was a measure of criticism that the activities of the International Labour Organization were primarily designed to meet the needs of western countries. The view was held by many

LABOUR

that there was a need for special and separate consideration of the problems of the Asian countries. The I.L.O. recognized this need when the Asian Regional Conference, the first of its kind, was held in Delhi in 1947. It was a landmark in the activities of the Organization. For the first time, representatives of Government, employers and workers of many Asian countries met, under the auspices of the International Labour Organization, to consider their own special problems. Accredited representatives of many countries were able to see at first hand, even if only for a brief period, the conditions of the masses in at least one Asian country. The conferences provide a forum, for the consideration of problems which are peculiar to Asian countries. One of the most important of these problems is to improve the existing labour conditions and to hasten economic development so that the present low standard of living may be improved. In raising the standard of living, the International Labour

Organization, in common with other international organizations, has a vital part play. We must also improve agricultural methods, seek better standards of housing and hygiene and improve technical processes.

In recent years, the nations of the world have become more and more conscious of the debt which they owe to the East and many international organizations are taking steps to assist Asia to develop its economic and social life. Among the steps which the I.L.O. has taken is one which will be special interest to the people of India, namely, the establishment of the Asian Field Office of Technical Training at Bangalore. It was set up because training seemed to be the most urgent aspect of the man-power problems of the Asian region. It was felt that practical action had to be taken to promote the development of appropriate training facilities. It is in ways such as this that the I.L.O. hopes to provide practical help to Asia.



Hon'ble Shri Jag Jivan Ram, Minister for Labour, Government of India inspected a Technical Training Centre at Madras

ANIMAL HUSBANDRY

and waste lands, (3) private patta grazing lands and (4) fodders and crop residues from agricultural lands.

To improve grazing in forest areas, rotational grazing is necessary to give time for the grass to regenerate. Restricting the number of grazing cattle to the carrying capacity of the pastures and receding with nutritive fodder grasses and legumes are other means of which a rapid improvement can be effected. On porambokes and wasteland areas overgrazing is even more rampant and here it is essential that stringent control should be exercised in the matter of grazing, along with adopting rich soil and water conservation measures as are necessary and receding overgrazed areas with suitable grasses and legumes. Private patta lands that are set apart exclusively for grazing are very limited in area; being found only in the important cattle breeding tracts of Ongole and Kandukur where the Ongole breed of cattle is reared and the Dharapuram-Palladam tract for the Kangayam breed of cattle. The grazing in these areas is generally good, though even here in recent years, much of the pasture areas have been broken up for cultivation. There is plenty of scope for improving these pastures by introducing more nutritious grasses and legumes.

Fodder from cultivated lands.—In our province, more than 93 per cent of cattle depend on agricultural land for their fodder and only some 7 per cent resort to forest grazing. Crop residues such as straws of cereal crops, haulms and bhusa of pulse crops, etc., form the chief sources of fodder. The position at present is such that even if an increase of 50 per cent is secured in straw yields by adopting intensive methods of cultivation, we are still faced with a huge deficit of 20 million tons of dry roughage

per year. It is here that we have to examine the scope of mixed farming as a possible solution. In a mixed farming system, the farmer grows all the fodder that is needed for his livestock, on his own land. The manure obtained from his livestock is returned to the fields year after year and thus the fertility of the soil is maintained at a high level and crop yields increased. The results obtained in mixed farming experiments both in Indian and abroad have shown that mixed farming is the only way to bring back the fertility of soils and secure high yields of grain and straw. A healthy relationship between animal, plant and soil is essential for success in farming and mixed farming is the only lasting solution for maintaining this relationship and solve our urgent food and fodder problems.

—The M.A. Journal.

Animal Husbandry in United Provinces

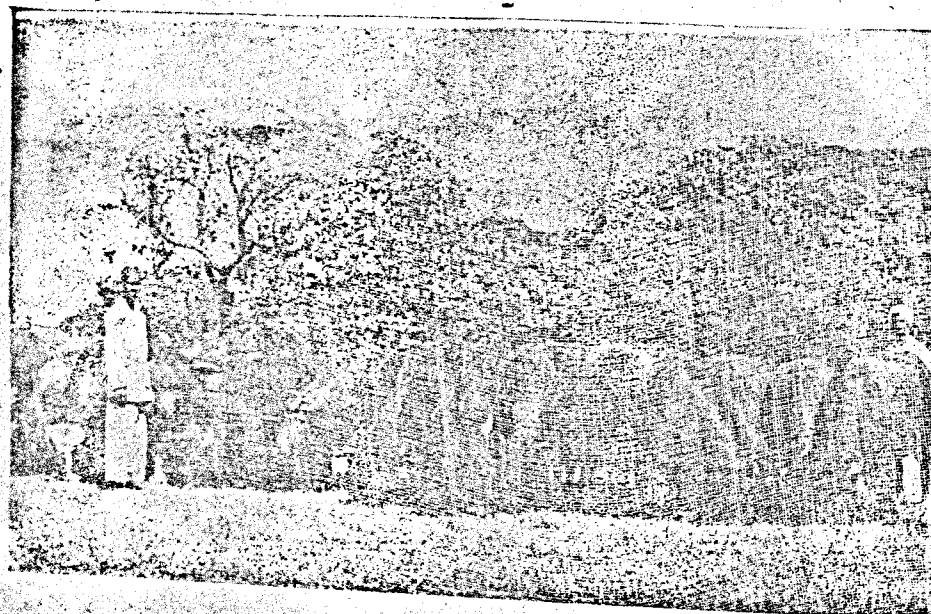
The United Province Government have under consideration a scheme for the establishment of key village centres, one in each tehsil of the six western districts of the Province.

Expenditure on Animal Husbandry

Expenditure on Animal Husbandry in the Province has risen from Rs. 12.85 lakhs in 1938-39 to Rs. 43.64 lakhs in 1949-50. From 5 pies in the former year it has risen to 15 pies in the latter year.

Sheep Improvement Scheme

The Government of Madras have sanctioned a scheme for the starting of a sheep farm in the Nilgiris, in order to improve the breeding of sheep for wool.



Murrah Buffaloes

PROHIBITION

Some Facts About Alcohol

By SRI H. C. MOOKERJEE, M.A., F.E.D.

Alcohol and accidents

It is an undisputed fact that alcoholic drinks taken in even small quantities have a pronounced drug effect with important physiological results and social consequences in the present age of mechanization. When Secretary Daniells of the United States Navy issued an order abolishing liquor from the Navy, he gave the following reason for the departure from the old rule:—

"The fact is that on the modern battleship, in particular, there is so much machinery, electrical and steam, that it is of the greatest importance that those in charge of it be not exposed to any opportunity of being in the slightest degree influenced by alcohol."

What was said from the standpoint of common sense was confirmed and the scientific reason for the step explained by Dr. Haven Emerson of the College of Physicians and Surgeons, Columbia University. He summoned up the medical reasons for total abstinence from liquor on the part of those in charge of machinery in general at an Anti-Saloon League Conference which met at Columbus, Ohio, United States of America, about the beginning of 1940, in the following way:—

"Within the past twenty years elaborate tests of the effect of alcohol in amounts well below those accepted as socially permissible have proved that even in such small amounts as to be unnoticed by the drinker, the life-guarding nervous reflexes upon which we constantly rely for safety and protection against injury are delayed from six to ten per cent."

This explains the large percentage of accidents among industrial workers all over the world if they are so unwise as to come to work when under the slightest influence of drink. Further proof of the correctness of this view is supplied by the fact that as the effects of alcoholic debauch do not pass off immediately, the largest proportion of accidents occur, almost invariably, on Mondays as the result of the comparatively heavy drinking indulged in on Sundays after the people concerned have received their wages and can therefore afford to spend the time which hangs heavily on their hands in the wine shop.

Road Accidents and Alcohol

Coming to the question of road accidents specially, the attention of readers may be drawn to the advice given to its members by the Automobile Club of Southern California. "If you must drink, don't drive. If you must drive, don't drink." And this was said because it has been very clearly realized that alcohol in even small quantities impairs the judgment, making the person under its influence in any degree unsafe at the driving

wheel of the motor car. According to the *Leicester Mercury*, dated the 13th October 1938, the Chief Constable of Leicester addressing the Industrial Transport Association said that it was not the drunkard who caused accidents, but the man who had a few drinks, thought himself a wonderful driver and took unnecessary risks when his judgment had been impaired through alcohol. The reader may also be referred to the opinion expressed by Professor Y. Henderson, Professor of Applied Psychology at the Yale University, who observed that:—

"We used to mean by alcoholic intoxication that a man was drunk when he could not walk straight or could not talk distinctly. Since the introduction of the automobile, however, the definition must be changed."

The above opinion was expressed because experiments conducted in Detroit described as the largest centre of the automobile industry in the United States, have shown that alcohol causes from 70 to 80 per cent inefficiency in motorists. When these facts were placed before the British public, the Liquor Trade of Great Britain through its trade journals and the many periodicals it controls directly by holding a majority of their shares and indirectly by the patronage extended to them in the shape of advertisements, controverted the statements repeatedly put forward by the British Temperance Movement that alcohol is largely responsible for road accidents. To put the matter beyond any doubt, the Chairman of National Commercial Temperance League made a careful study about the middle of 1939, of 1,400 Press cuttings from British periodicals appearing from different parts of the country received in a single month from a Press cutting agency. In publishing the report of this investigation, into the details of which it is unnecessary to enter here, the *Outlook*, the organ of the above-mentioned organization remarked:

"This analysis confirms the view we have long held that drink plays a far larger part in road accidents than either official statistics indicate or than the Ministry of Transport will acknowledge."

As road accidents continued to increase and, with them, the tempo of the propaganda of the British Temperance Movement against the use of alcohol by motor drivers, a committee was appointed to investigate into and to suggest steps for their prevention. The following extracts from the Report of the Select Committee of the House of Lords on the Prevention of Road Accidents though somewhat long, should prove interesting to the reader:

"The effect of even moderate quantities of alcohol on drivers is not generally realized. The Committee think that propaganda should be employed to train and fortify public opinion in the condemnation of persons who drink

ANIMAL HUSBANDRY

Cattle Welfare

It has been said that the twin props of Indian agriculture are Cattle Welfare and Cottage Industries. Few have realized sufficiently the essential relationship between Cattle Welfare and Agriculture. It is a matter beyond doubt now that Agriculture cannot thrive in any country without an efficient livestock.

Agricultural production in this country is intimately bound up with the improvement of cattle. The improvement of nutrition also depends to a large extent on the increase of milk, meat and egg production. We have a large cattle population but a considerable proportion of them are unserviceable, useless and burdensome. In most parts of the country the cattle are non-descript. They are weak and puny, easily susceptible to diseases, especially epidemics. It is uneconomical to keep large numbers of aged, barren, diseased or disabled animals which form a big drain on the scanty fodder resources of the country.

We can improve the general condition of our cattle and increase their milk yield and working capacity by selective breeding. There are four livestock breeding farms at present. Government have a post-war scheme for establishing livestock breeding farms in each district. Steps are being taken to open farms in Malabar, South Kanara and Kurnool. A Village Livestock Improvement Scheme

has been sanctioned for introduction in the first instance in four of the Farka Development centres in Guntur, Coimbatore, Bellary and Tanjore districts. A scheme for the grant of assistance to private breeders which has been under contemplation since 1945 will be brought into effect this year. This may help to encourage private enterprise in improving breeds of cattle. *Artificial insemination* is a method which can be adopted to overcome the difficulty created by the shortage of approved breeding bulls. This work is being successfully done now at the Veterinary College and it has been decided to extend it to two more centres at Guntur and Coimbatore.

According to the existing practice, bulls are distributed to certain localities without any arrangement for compulsory segregation or castration of the adult males in that place, and prevention of promiscuous mating on common grazing grounds. When the progeny of an approved bull is served by a scrub bull, the improvement effected in one generation is nullified in the next. The Key Village Scheme is meant to remove this defect of the present system and ensure a concentrated and continuous plan of improvement. When the plan is developed and there is full breeding control, the key villages are expected to serve as economic cattle breeding farms.

ANIMAL HUSBANDRY

Selective breeding alone cannot bring about improvement in the condition of our cattle. Proper feeding is equally, if not more, essential for this purpose. The large majority of our cattle are underfed and ill-nourished. Poor feeding brings about deterioration in stature and stamina. When milch animals become dry they are neglected and left almost semi-starved. This often affects their yield of milk during their next lactation. The high percentage of mortality and morbidity in our cattle are due in a considerable measure to nutritional deficiencies. Animal nutrition studies have shown the importance of balanced feeding. Cattle food should contain both roughages and concentrates in proper proportions. Village cows put on Government farms have been found to improve remarkably and yield increased quantities of milk as the result of proper management and feeding. The production of fodder and cattle feeds deserves to be given high priority in our plan of food production.

The control and eradication of cattle diseases must form a vital part of the problem of livestock improvement. Though there is lack of information regarding cattle mortality in our country, it is well-known that epidemics of contagious diseases are widely prevalent. They kill a large number of animals every year. A still larger number are incapacitated by such diseases. One of the outstanding problems facing our veterinary department is the control of contagious diseases.

We have at present 144 veterinary hospitals and dispensaries and 169 touring veterinary assistant surgeons. If we have to provide on an average one veterinary assistant surgeon for every 25,000 heads of cattle as laid down by the Agricultural Commission, we shall have to multiply our veterinary staff to three times its present number. On account of the shortage of qualified veterinary men, 46 of the sanctioned posts are being kept vacant and eight of the retired officers have had to be recently re-employed.

Extensions and improvements are being made in the Veterinary College and Hostel at a cost of about

Rs. 1,60,000. An increased number of graduates will come out of the college from next year onwards and this will help to remove the existing shortage of veterinary personnel.

The dairy industry needs development in our Province. Co-operative organizations have taken up the work of milk supply to several towns and cities. A dairy-cum-breeding farm has been set up by Government at Waltair. An officer of the department has been sent to Northern India to buy Murrah buffaloes for this farm. This is the first commercial dairy farm started by Government in this province. The improvement of the breeds of sheep and goats is also receiving attention. A Sheep and Goat Development Officer has been appointed for this purpose. A sheep farm has been opened in the Wenlock Downs near Ootacamund in December 1948. The Poultry Development Officer looks to the improvement of poultry. There are demonstration units in 30 of the veterinary institutions. Three District Poultry Farms have been opened last year. The control of Ranikhet disease by the use of the recently discovered vaccine is expected to diminish the risks of poultry rearing.

Cattle insurance is a measure of far-reaching importance for cattle improvement. It is said to have made great headway in foreign countries. There is no doubt that it would bring security to the cultivator and encourage cattle breeding and dairying industry in this country. Mr. Priolkar who has made a special study of this problem as an officer on special duty in the Central Ministry of Agriculture, has mentioned the varied benefits of cattle insurance and also pointed out the difficulties in the way of its successful operation in this country. The ignorance and poverty of the average cattle owner in India is one of the formidable obstacles. The wide prevalence of contagious diseases and the limited facilities we have at present for effective or speedy control and treatment of such diseases is another great handicap. The attempts so far made to organize cattle insurance through co-operative societies in some of our provinces have not been sufficiently successful.

The Fodder Problem

By SRI T. VENKATARAMANA REDDY, M.Sc.,

India is primarily an agricultural country, where cattle form the backbone of agriculture, both as prime-movers for all farming operations and as suppliers of milk and manure. In recent years, the food problem in India has assumed serious proportions; but in fact the fodder problem is even more grave. Our deficit in fodder is over 100 per cent and production must be more than doubled if our livestock is to be fed adequately. Various views have been put forward to explain this fodder scarcity, one of which is that we are having too many useless animals that should be slaughtered forthwith. The real reason seems to be the lack of

attention that heifer calves get during the growing stages as compared with bull-calves and the consequent slow growth and late bearing of such underfed animals. As a result of this chronic poor feeding, a needlessly large stock of cows have to be maintained to secure the necessary number of work bullocks. Under proper management with more liberal feeding, there would be no need to carry such a large stock of cow population.

The chief sources from which our fodder supply could be increased are (1) forest grazing, (2) grazing in poramboke



PROHIBITION

before driving—above all to discourage the practice of 'One for the road.' A warning of this danger should receive prominence in the Highway Code, and it should be emphasized that, even where there is no question of drunkenness, a small quantity of alcohol is, for many drivers, most dangerous. The driver who has imbibed alcohol experiences a feeling of 'euphoria' or careless well-being and entertains a mistaken idea that he is driving better than usual. He does not realize that his reactions are a lower, that his neuro-muscular control is impaired, and that his vision is restricted. It is essential that they (magistrates and their clerks) should realize that 'under the influence of drink' does not necessarily mean intoxication in the ordinary sense; but that driving skill is affected long before, a man is consciously under the influence of alcohol."

The above report which saw the light of day in 1939 received wide publicity and it was acknowledged on all hands that a majority of the members who were not teetotalers had made quite reasonable and highly practical suggestions for at least reducing the number of road accidents. But these were honoured more in the breach than in the observance.

That this advice was not accepted is proved by the number of road accidents during the first three months of the last year when there were more casualties on the roads of Great Britain than there were in military operations, whether by land, sea or air. The figures published under authority show British War casualties during the months of September, October and November 1939, to be 2,100. During the same period, 2,975 persons were killed on the roads of Great Britain.



These are some of the beneficiaries of prohibition

Awakening of British Public Opinion

When the above facts become known through the propaganda of the British Temperance Movement, there was not only wide discussion in the press but distinguished medical men also felt compelled to draw the attention of the British nation to the risk to which sober men were exposed by reckless drivers. Thus we find Dr. A. N. Bruce, the distinguished nerve specialist and lecturer in Neurology at the Edinburgh University while speaking at the luncheon meeting of the Newcastle Branch of the National Commercial Temperance League on the 18th March, as reported by the *New Castle Journal*, dated the 19th March 1940, saying that "no motorist should touch alcohol within two hours of starting a car journey."

Prohibition in India

The Indian who stands for Prohibition may, according to British standards, be regarded as a crank if not a fanatic, but it does seem to him, perhaps wrongly, that it is a strange country where restraint on the freedom of individuals as regards indulgence in a practice demonstrably discreditable to them and obviously perilous to the life and limb of their fellow citizens, cannot be imposed in public interests. And he wonders whether this is not due mainly to the wide prevalence of the drinking habit and the lenient attitude adopted towards it by the majority of the nation which again may be due to their use of it if not regularly, at least occasionally.

—Sanjeevan.

DEPARTMENTAL NOTES

Food and Agriculture Department

In view of the imperative necessity to maximise sugar production and in order to prohibit the diversion of sugarcane for the manufacture of jaggery, the Government have recently promulgated the Madras Jaggery (Manufacture) Control Order, 1949, banning the manufacture of jaggery except under a permit. Power has also been taken to apply the provisions of the Order to the whole or any

portion of the Province by a notification by the Government.

With a view to encourage the hand pounding of paddy, orders have been issued to the Collectors of the districts who are the licensing authorities under the Madras Rice Mills Licensing Order not to issue licences to new rice mills in any part of the Province.

Electricity Department

Moyar Hydro-Electric Scheme.—Masonry work of the Singara Diversion weir and Headworks was completed except for the flood gap in the silway section. Masonry of Maravankandi Dam and excavation of the flume channel were continued. Formation of earthen bund of the forebay was continued. Grading in the lowest reach from Anchor No. 2 to power house was almost completed. Manufacture of pipes for the Low Pressure Pipe Line was in various stages of progress. Laying of the haulage track at power house was under progress. Excavation for stanchion foundations of Power House was in progress.

Pykara Plant Extension.—Excavation of the left flank of the Pykara Dam and drilling of exploratory bore holes were under progress. Dam masonry was continued. Grading for the penstock line was also continued. Collection of materials for construction of piers and anchors was progressing.

Pykara-Moyyar-Erode 110 KV. Line.—Town erection for 397 locations out of 412, earthing for 327 locations, painting 1st coat for 264 towers, paying out conductors for 52 miles, stringing for 45 miles and earthwire stringing for 9½ miles were completed.

Protection to tower foundation wherever necessary was being done. Almost all sub-station buildings were nearing completion.

Papanasam Plant Extension.—Erection of No. II manifold and IV Coving valve was completed. The coursed rubble masonry in valve house extension was under progress. R.C.C. covering slab for the emergency oil ducts and cooling water pipes were being cast for the power house and transformer yard. Protective timbering work for No. 6 spill way gate was being continued.

Mathurai Thermal Scheme.—Construction of the power house building was progressing. R.C.C. mutting for the boilers has been completed. The steel structure for the turbo-pedestal has been completed. All the works for the cooling water pond were nearly completed.

Madras Plant Extension.—Laying of foundation slab of Power House Extension was continued. Piling for Natural Draught Tower No. 3 was completed and earth work excavation for tower No. 2 was continued.

Nellore Thermal Scheme.—M.B. Sheds for the Power House have been erected. Roofing of one has been completed and that of the 2nd is in progress. Sinking of 16' diameter well was completed for one generator and boiler unit and was in progress for another. The construction of staff quarters was in various stages of progress.

Two Nos. 52 ton turbo-alternator assemblies were transported to Thermal Station site.

Ceded District Scheme.—All the towers for the 66 KV. transmission lines were erected in Hospet-Bellary Section and Bellary-Guntakkal section. The special foundations for towers across Hagari river were completed in Bellary-Guntakkal section. Stringing of conductors and earthwire were in progress in Hospet-Bellary section.

Construction of 11 KV. feeder to Sugar Refineries at Hospet and to Bellary Municipal Power House at Bellary was under progress. 2 Nos. 1000 KVA. transformers for Bellary have arrived. They were unloaded and one was transported to sub-station site.

Hindupur Scheme.—Stringing of 33 line from Mysore border to Hindupur and 11 KV. lines to Mothukapalli was completed. Erection of line to Maravapalli was in progress.

Machkund Hydro-Electric Scheme.—Work on Coffor Dam second stage of Diversion Dam was under progress. Earthwork excavation for diversion dam, flume and tunnel pond dam was proceeding. Tunneling both at entrance and exit of the pressure tunnel was in progress. Tunneling for a total length of 117 feet including the open tunnel of 45 feet length was completed. Construction of buildings in the various camps was in various stages of progress. Tree cutting was in progress in Vizag-Rajahmundry, Vizag-Machkund and Thennubeddavara-Nellimarala sections.

Labour strength during the month was 3,576.

Vijayavada Power House Extensions.—Driving of pressure piles was completed under ash tunnel portion. Concreting for the boiler stanchion was in progress. Foundation work was completed for 15 locations in the Godavari river crossing works.

DEPARTMENTAL NOTES

Two wagon loads of Stanchions, girders and joists were received from Messrs. Richardson and Cruddas Company. Boiler parts were received from Messrs. Gordon Woodroffe.

Visakhapatnam Power House Extension.—Fabrication of end trusses for the Visakhapatnam Power House and earthwork excavation for construction of compound wall

around the newly acquired area for the power house extension were progressing. Erection of the fifth boiler was under progress and the construction of the rest house was nearing completion.

General.—Work on other transmission lines and sub-stations was proceeding satisfactorily.

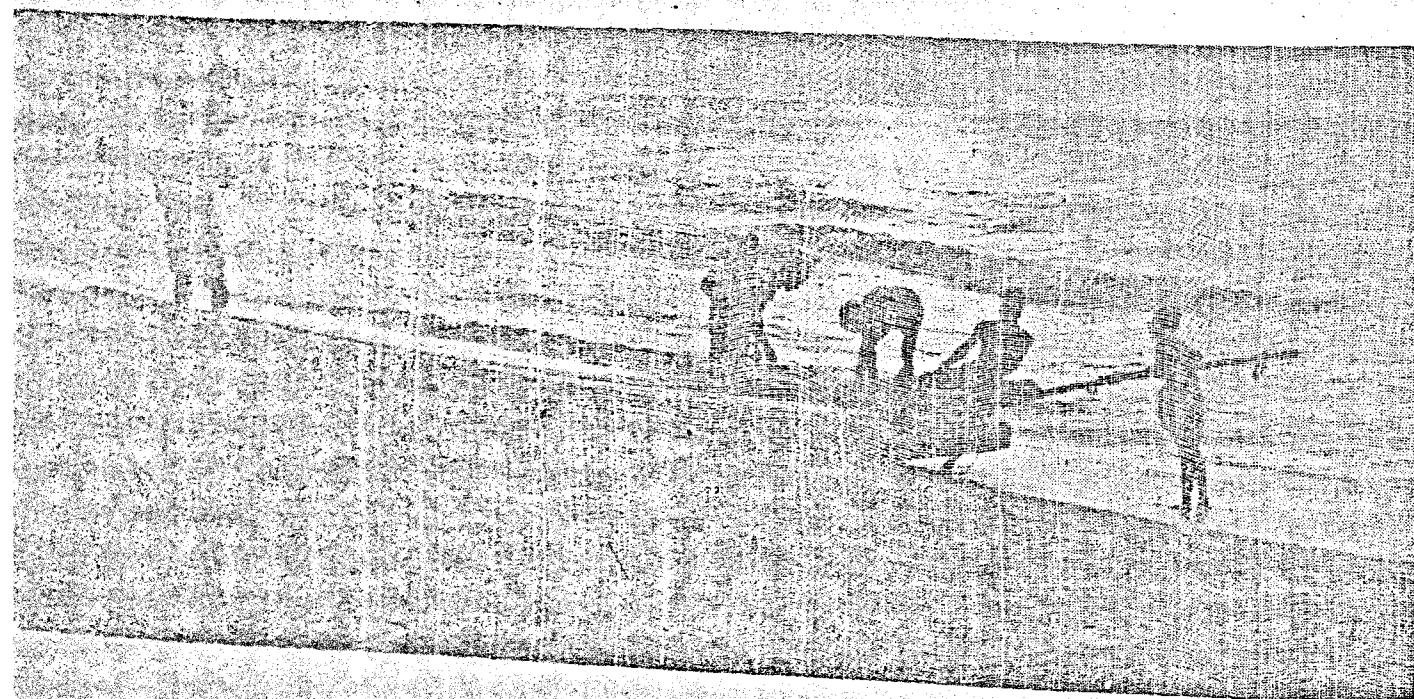
Fisheries Department

Quick transport of fish to Madras markets from the fishing villages has been from a long time a difficult problem. The Government Fisheries Department purchased two new Chevrolet chassis and two new Ford chassis recently and handed them over to the Government coach building factory for construction of the bodies for fish transport vans.

One of the vans on a Chevrolet chassis has been completed. Provision is made inside the van for carrying fish baskets on four expanded metal racks in the centre like Railway luggage racks. Boating accommodation is provided on either side for ten to twelve persons who bring the fish to the market. The panelling is in aluminium sheets which renders the van light and rustproof. Expanded metal ventilators are provided on either side of the van. The

van was shown to the fishermen of Ennur who were thoroughly satisfied with the van. It is proposed to collect only a very moderate fare from fishermen to take them with their baskets to the markets in Madras and to bring them back every day.

Efforts are also being made by the Officers of the Fisheries Department to run vans from other fishing centres like Sadras and Tiruvannamoor to enable the fishermen to supply within a few hours of landing fresh wholesome fish to the public in Madras. It is needless to say that there will be great improvement hereafter in the quality of the fish brought to the markets, as delay in transporting fish to the markets is the principal cause of "Fish Spoilage". By quick transport this delay will be avoided.



Fishermen at work

DEPARTMENTAL NOTES

Education Department

General.—In view of the existing dearth of trained teachers, Government have relaxed the provisions of rule 16 of the Grant-in-Aid Code temporarily for a period of two years from 1949-50 so that the Director of Public Instruction can assess grant on behalf of teachers who are permitted to work beyond 60 years of age.

National Cadet Corps (Junior Division).—During his recent tour, Col. C. G. Bewoor, Director, National Cadet Corps, Ministry of Defence, Government of India inspected a large number of the Cadets of Junior Division on parade. The Director was very much impressed with the progress made by the cadets in such a short time. The Units of Doveton Corrie Boys' School and T.T.V. High School deserve special mention in this connexion.

Adult Education.—Government training schools for adult school teachers were conducted in the four regional languages this year.

Basic Education.—As the Government felt that a separate Board should be constituted to advise Government on all matters connected with Basic Education, they have ordered the dissolution of the Basic Education Sub-Committee of the Provincial Advisory Board and the Constitution of a Separate Advisory Board for Basic Education with 24 members.

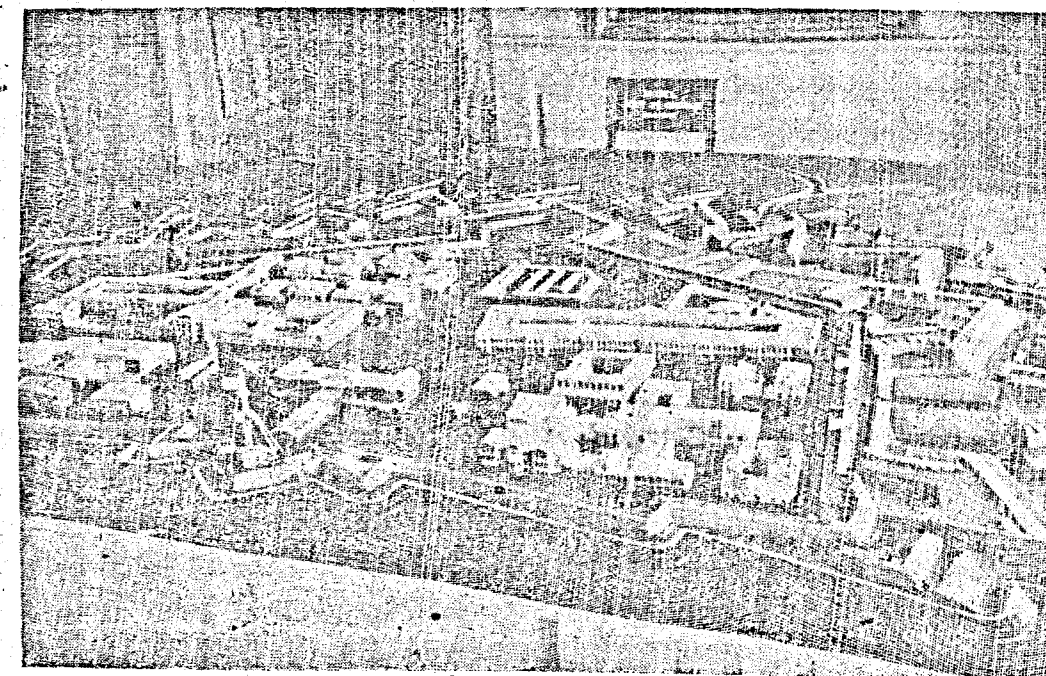
Visual Education—Training Course.—A four-day Training course in the use of projectors and other visual education equipment and their proper use including films and film strips was conducted during the last week of December 1949. Preference was given to teachers coming from schools owning their own projectors. Twenty teachers were trained.

Film Library.—The Library has started to function vigorously. Schools owning 16 mm. projectors are permitted to borrow films. The number of schools that have taken advantage of the scheme is slowly increasing, the number at present being 25.

It is proposed to buy about 100 films (16 mm.) more in the current year.

Citizenship Training.—Eleven training courses for Citizenship teachers were conducted during the period September to November 1949. The total number trained was 556 of whom 346 were men and 210 women.

Similar training courses for the B.T. students will be conducted in the Government Training College, Rajahmundry and in the St. Christopher's Training College.



An aerial view of the Secretariat Buildings

BOOKS AND PUBLICATIONS

A Useful Publication

The Statistical Atlas of the Madras Province, a decennial publication dealing with such subjects as topography, agricultural practices and developments, population and occupation, wealth, famine relief, etc., has just been issued for the decennium ending fasli 1350 by Dr. B. Natarajan, Economic Adviser to the Government of Madras. In the normal course, this edition should have been undertaken and completed soon after 1350 (1940-41), but its issue was delayed due to the intervention of World War II, which necessitated the suspension of the work of compilation of the atlas.

The Atlas covers in all 1,000 pages of printed matter. It consists of a Provincial memoir and separate reports for individual districts. Several new and interesting features have been introduced in the present edition of the Atlas. Apart from a detailed map of the Province

showing the district and taluk boundaries and railway communications, district maps have been added and important aspects relating to the Province and individual districts, such as the distribution of acreage under crops, agricultural stock, distribution of rainfall, of agricultural holdings according to assessment, trend of prices of food-grains, etc., have been represented diagrammatically in coloured charts.

The atlas is attractively got up and contains a wealth of information regarding the agricultural economics of the Province, and should prove very useful not only to administrators but also to research workers and students of Economics.

It is priced Rs. 100 and obtainable from the Superintendent, Government Press, Mount Road, Madras.

"WOMEN'S WELFARE JOURNAL"
SPECIAL ANNUAL NUMBER

Price As. 8.

The publication under review has been brought out by the Women's Welfare Department of the Madras Government. It is a matter of common knowledge that this department has during the brief period of its existence done much to promote the interest of women in this province. In parenthesis, it may be observed that Madras is the first province to organize a separate department to look after women's welfare. The importance of the activities of this department cannot be overstressed. It is an encouraging fact that during the last two or three decades there has been a widespread recognition of the importance of women's welfare in the scheme of national regeneration. Women are responsible for nine-tenths of village life and unless their lot is improved there is no question of improving rural standards in this country—

observed a great champion of rural uplift more than a quarter of century ago. Charles Fourier, the great French idealist said that the level of the civilization of a society is judged from the level of attainments of its womenfolk. Women govern the home and they are the real key to the progress of any society, said yet another author. It is thus no longer a moot point that the promotion of women's welfare is an essential preliminary to improvements in other directions. And the Madras Government's constitution of a separate department is a recognition of this fundamental fact.

The department has amply justified its existence by its many-sided humanitarian and ameliorative activities. Of these their monthly journal give abundant particulars. The present special number also bears evidence of the manner in which they are tackling problems connected with women's welfare. Knowledge is the ammunition of

rural uplift work or for that matter of any welfare work and the special number contains articles bearing on the various aspects of women's welfare. These articles are from the pen of personalities best fitted to write on the respective subjects. The special number includes also a number of messages. The get-up is good.

—T.K.G.

"THE INDIAN VETERINARY JOURNAL,"

1924-49—Silver Jubilee Number—All-India Veterinary Association.

Editor—Sri P. SRINIVASA RAO, 26, Wallajah Road, Mount Road, Madras.

The Indian Veterinary Journal has brought out a special number in commemoration of its silver jubilee. Eminent specialists like H. K. Lall, M. S. Sastry, J. O. L. King, G. S. Iyer, Geoffrey Lapage and T. Vinayak Mudaliyar have contributed articles on various aspects of animal husbandry. Under the heading "March of the Profession" the activities of veterinarians in the different Provinces are reported. Messages from outstanding personalities in the veterinary world are also included, along with the photographs of some pioneers. The get-up is attractive.

—S.A.H.

PHYSICAL CONTENTS AND MATHEMATICAL TABLES BY T. N. SESHADRI, M.A., PUBLISHER S. VISWANATHAN.

The book provides in a convenient form, useful data required by routine work in science laboratory. The opinions given have been gathered from a number of well-known works. The fact that the book has undergone five editions is proof of its popularity and usefulness.

—T.K.G.

PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRESS, AND EDITED AND PUBLISHED BY THE DIRECTOR OF INFORMATION AND PUBLICITY, GOVERNMENT OF MADRAS.

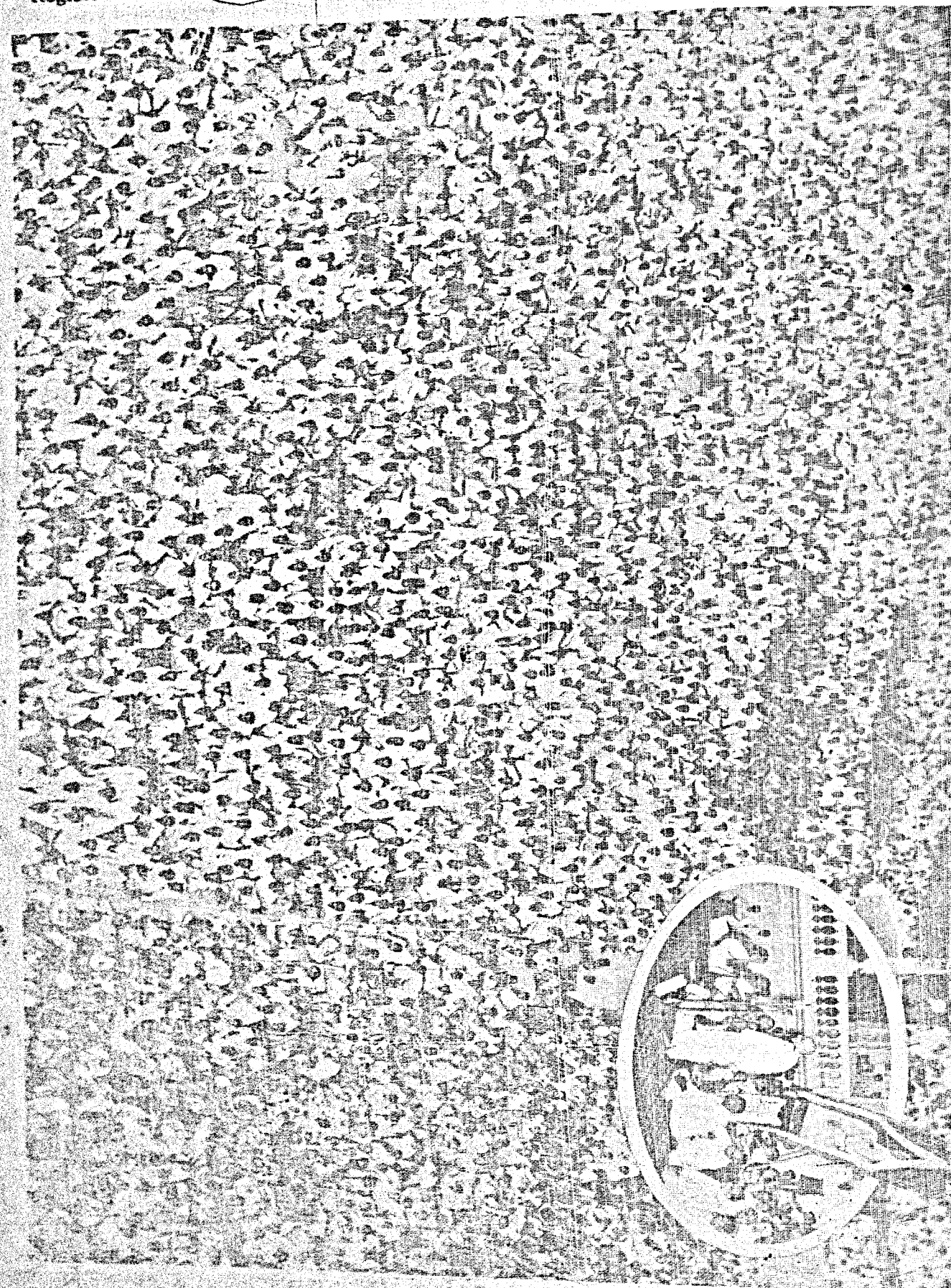


Government Bus Transport during the khadi exhibition. They did a good job of it

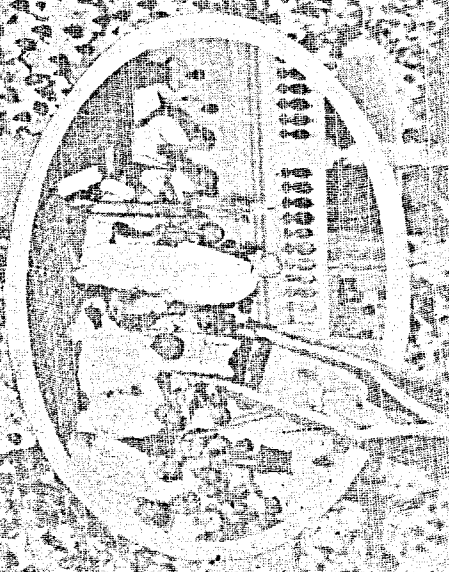


Georgetown Ladies Cottage Industries Production and Sales Cooperative Society—Ladies engaged in embroidery sewing, leaf making, etc.

Registered No. M-4767



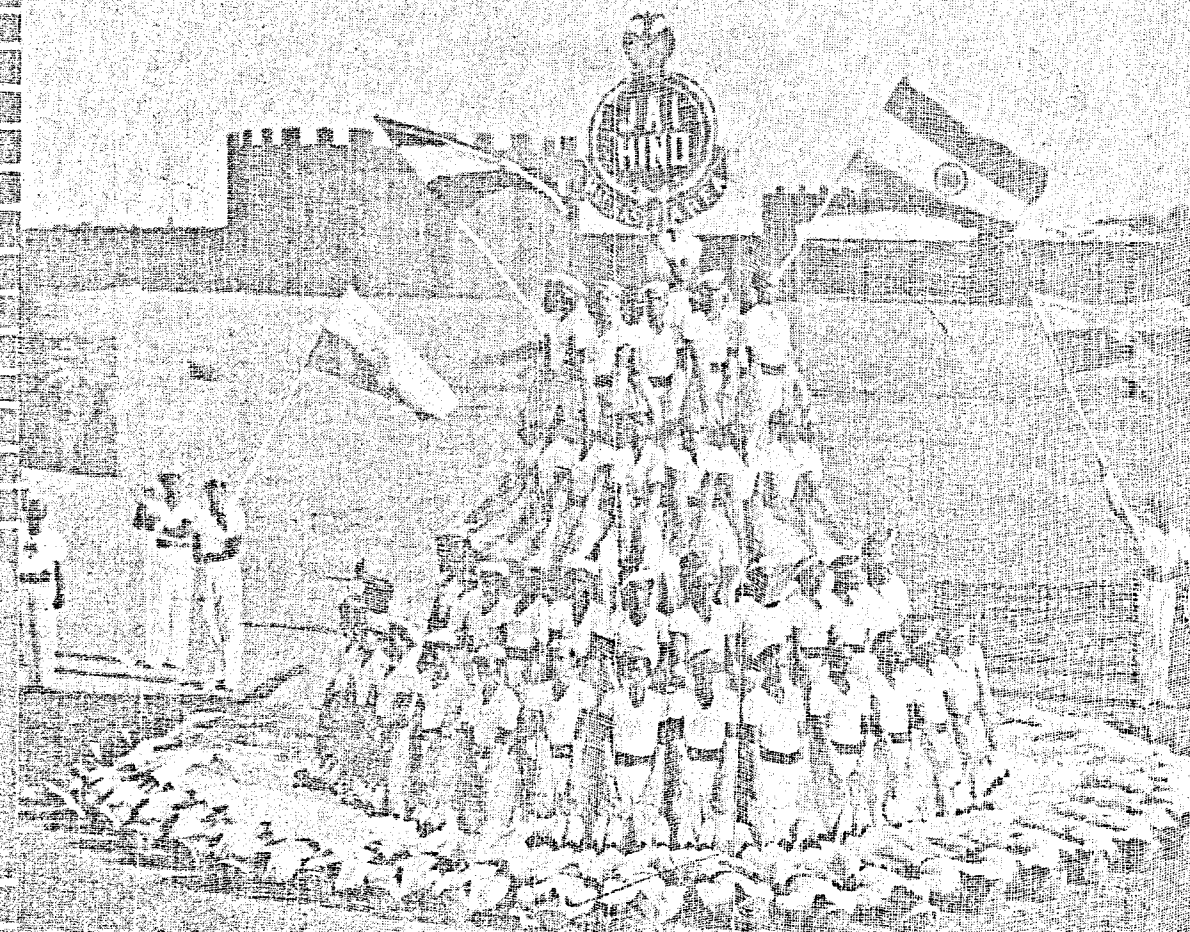
Savitri Day in Madras City—Rajaji addressing the huge gathering assembled in front of Rajaji Hall

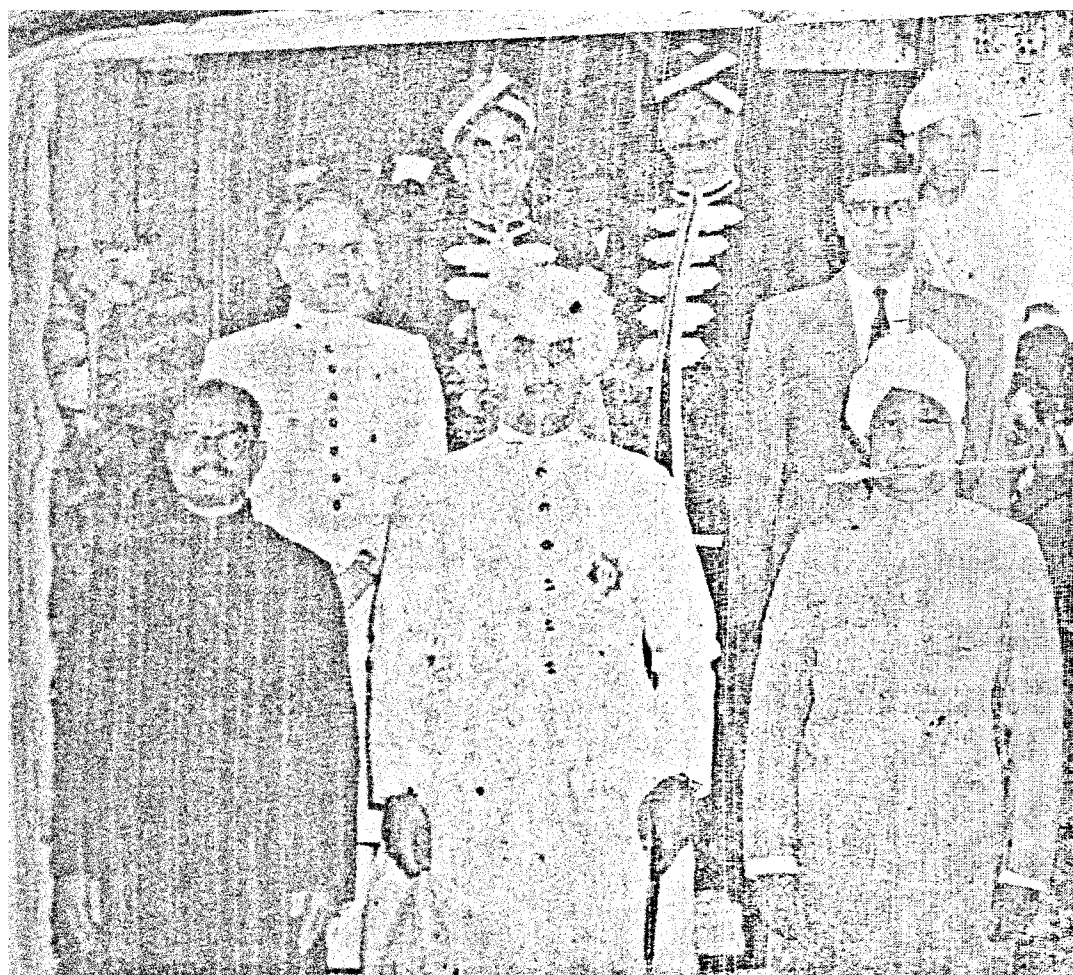


MADRAS INFORMATION



VOL. IV. NO. 3
MADRAS
MARCH
1950
Price, Rs. 3

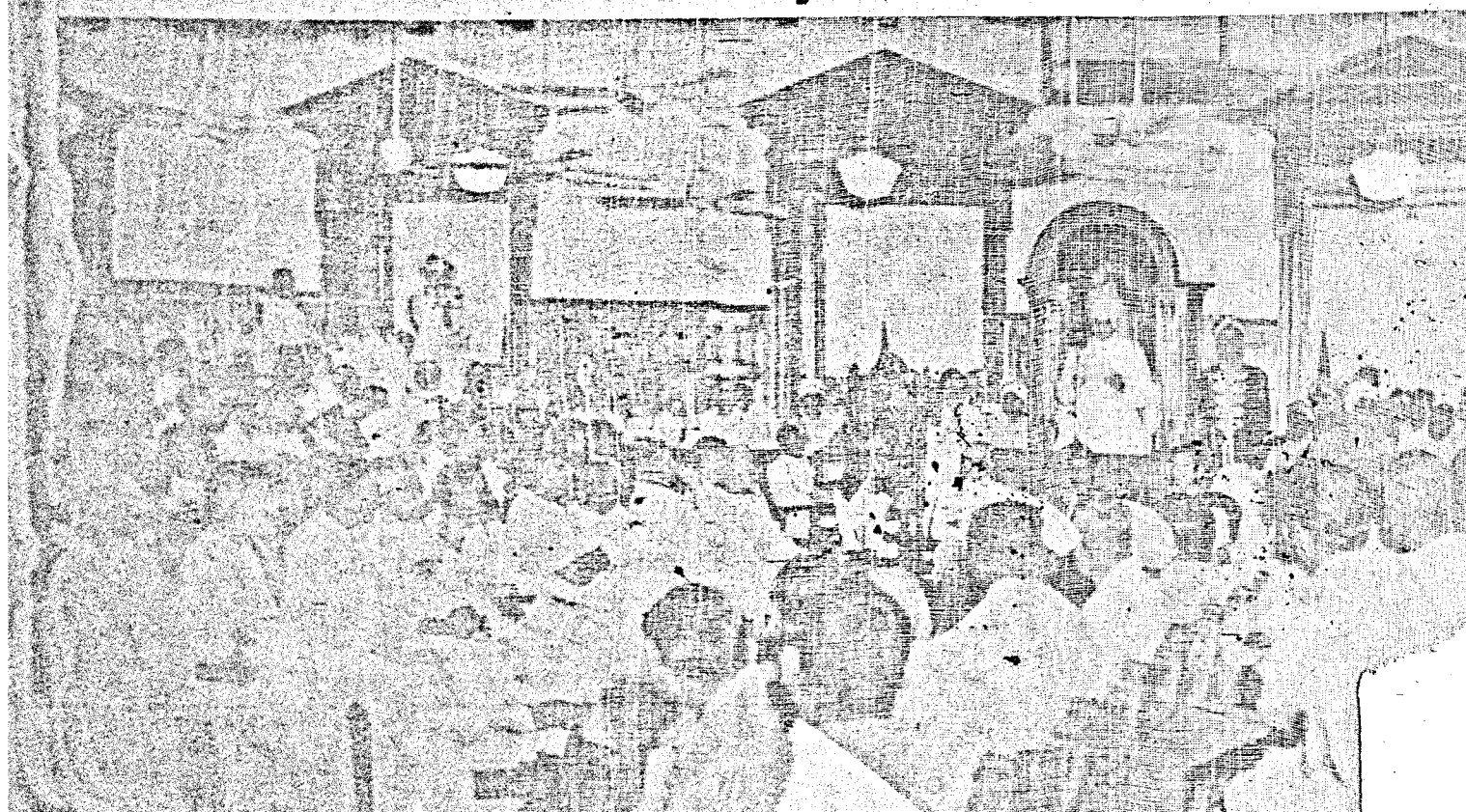




H.E. THE GOVERNOR'S
ADDRESS

*H.E. the Governor of Madras with
Sri J. Sivashanmugham Pillai
and Sri R. B. Ramakrishna
Raju, Speaker and Chairman
respectively of the two
Houses of Legislature*

H.E. the Governor of Madras,
addressing the Joint Session
of the two Houses of
Legislature



MADRAS INFORMATION

BUDGET AT A GLANCE

The Budget for 1950-51

		Revised Estimate, 1949-50. LAKHS. RS.	Budget Estimate, 1950-51. LAKHS. RS.
I. A. Revenue—Normal	.. .. .	56,91.30	55,21.25
B. Expenditure on Revenue Account—			
(i) Normal Expenditure, i.e., excluding expenditure on Post-War Development and Grow More Food schemes	.. .. .	48,13.39	47,91.26
(ii) (1) Expenditure on Post-War Development schemes	.. .. .	5,18.54	5,39.91
(2) Expenditure on Grow More Food schemes.	.. .. .	3,06.24	2,26.06
	Total ..	56,38.17	55,57.23
C. Surplus (+) or Deficit (-) (A minus B)	.. .. .	+ 53.13	—35.98
II. Capital Expenditure Outside Revenue Account	.. .. .	9,48.37	15,49.15
III. Loans and advances by the Madras Government— Net disbursements	.. .. .	1,53.12	1,04.66

HIGHLIGHTS

Provision for Important Progressive, Nation-building and Ameliorative Programmes during 1950-51.

	LAKHS
	OF
	RS.
✓ Harijan Welfare	93
Education (New Schemes)	55
Food Production—	
Irrigation works	
Tank Restoration, etc. }	145
Remissions and Relief—	
Kist remission, postponement, etc.	70
Relief measures	24
Housing—	
Loans to house-building societies	140
Rural housing	20
Zamindari Abolition—	
Advance compensation to be paid	107
New Schemes—	
Revenue Account	137
Capital and Debt Accounts	190
From Village Reconstruction and Harijan Uplift Fund ..	13
Ultimate cost of new schemes—	
Recurring	20





BUDGET FOR 1950-51

Broadcast Talk by Sri B. Gopala Reddi

Continued Development of Beneficent Activities Assured

Early in November 1949, I spoke to you generally on the financial position of the Government of Madras. I have today presented to both Houses of the Legislature, the Budget for 1950-51 and I shall now explain the salient proposals embodied therein.

This is the third Budget which I have the privilege of presenting for the whole State of Madras and the first one under the new Constitution. I am glad to say that the Budget does not contemplate any measures of new taxation, notwithstanding the fact that Prohibition is now in full force. I would be happy indeed, if I had been in a position to announce some immediate relief from existing taxation also; but as you may remember, most of the proposals for additional taxation which I mentioned at the time of presenting the Budget for the current year were subsequently dropped, either as a result of closer examination or in deference to the views expressed by your representatives, and the Government of India have intimated that they will not be able to give any grants for development schemes in 1950-51. As the entire financial burden in respect of the development schemes already introduced has to be shouldered by this Government, they have not been able to give any taxation relief. The Budget for 1950-51 thus contains no surprises; but it provides for the continued development of the beneficent activities of the Government.

The normal revenue for 1950-51 is estimated at Rs. 55.21 crores and the expenditure on Revenue Account at Rs. 55.57 crores, leaving a small deficit of Rs. 36 lakhs. I may mention in this connexion that the provisions in the new Constitution regarding Sales-tax may result in the loss of a large part of this important source of revenue. In fact, I have allowed for a loss of about Rs. 52 lakhs on this account in the Budget. The Budget deficit is about the same as the excess of estimated expenditure over Revenue in respect of the merged States of Padukottai, Banganapalle and Sandur, and if any compensation is received from the Government of India in respect of these areas, the deficit will be practically wiped out. I have therefore left the deficit uncovered for the present.

New Schemes.

The total cost in 1950-51 of the new schemes which have been included in the Budget is Rs. 137 lakhs debitable to the Revenue Account and Rs. 190 lakhs debitable to the Capital Account. In addition, new schemes costing Rs. 13 lakhs will be financed from the Village Reconstruction and Harijan Uplift fund. The ultimate cost of all these schemes is Rs. 39 lakhs recurring and Rs. 707 lakhs

non-recurring. The Education Department gets the largest allotment for new schemes (Rs. 55 lakhs) which include the development of basic education, introduction of bifurcated courses in 26 more secondary schools, expansion of the adult education scheme, opening of new courses in various Government colleges, grants to the three Universities, grants for the education of the defective children, and teaching, building and equipment grants to new educational institutions. The total expenditure on education in 1950-51 (including expenditure on buildings) is expected to be as much as Rs. 11.5 crores, or more than 20 per cent of the total estimated revenue of the State.

As usual, a large number of schemes are for the benefit of local bodies—Rs. 31.5 lakhs for the construction of new roads, Rs. 7.5 lakhs for improved surfacing of roads, Rs. 4.5 lakhs for the improvement of village communications and Rs. 10 lakhs for wiping off the deficits caused by the payment of dearness allowance to the employees of local bodies at Government rates. The total provision made for Communications—Original Works and Repairs is Rs. 439 lakhs, exclusive of Rs. 55 lakhs to be given as grants to local bodies and nearly Rs. 107 lakhs to be spent on National Highways at the cost of the Government of India.

Medical and Public Health

Among the new schemes of the Medical and Public Health Department are: the construction of a new ward and quarters for staff in the Rajah Sir Ramaswamy Mudaliyar's Lying-in-Hospital, Madras (ultimate cost Rs. 33 lakhs), improvements to the Headquarters Hospital, Mangalore and Lady Goschen Hospital, Mangalore (ultimate cost Rs. 29 lakhs), increase in the bed strength and employment of additional staff in the Government Headquarters Hospital, Kakinada, and improvements to certain taluk headquarters hospitals (ultimate cost Rs. 18 lakhs). Provision has also been made for maintenance and building grants to the Rajaji Tuberculosis Sanatorium, Tiruchirappalli, a building grant to the Visrantipuram Tuberculosis Sanatorium, Rajamundry, and the opening of new rural dispensaries of modern as well as indigenous medicine.

The special programme for accelerating the progress of water-supply and drainage schemes in urban areas of this Presidency will be in full swing during next year, and the Government have accepted commitments to the extent of Rs. 40 lakhs in each of the next two years and Rs. 80 lakhs in the two subsequent years, by way of grants to local bodies in connexion with this programme.

Drive for Food

In view of the imperative need to augment our food resources, the Grow More Food Campaign is being pursued with vigour and all schemes of the Agricultural Department will be intensified. A sum of Rs. 152 lakhs has been provided for being disbursed as loans under the Well Subsidy Schemes. In addition, the Budget contemplates an expenditure to the extent of Rs. 145 lakhs on Grow More Food irrigation works including the Comprehensive Tank Restoration Scheme. As regards major irrigation works of long term value, it is expected that by the end of the current year, we would have spent nearly Rs. 6 crores on the Tungabhadra Project and over Rs. 1 crore on the Lower Bhavani Project. A further expenditure of Rs. 3 crores on the Tungabhadra Project and over Rs. 1 crore on the Lower Bhavani Project will be incurred next year. The other schemes which are under execution and for which large provision has been made in the next year's budget include the Malampuzha Reservoir Project, Rallapad Project, improvements to Romperu and Peddalanka Drains and the Mettur Canals Scheme. The total estimated capital expenditure on Electricity Schemes is over Rs. 5.6 crores.

Harijan Uplift

The Government have been steadily increasing their activities for the welfare of Harijans. The total expenditure on Harijan Welfare which was less than Rs. 30 lakhs in 1945-46 has risen to Rs. 64 lakhs in 1948-49. The provision made in the revised estimate for the current year and in the budget for the next year is Rs. 82 lakhs and Rs. 93 lakhs respectively.

The total expenditure from the Rs. 4 crores fund for Village Reconstruction and Harijan Uplift up to the end of March 1949 was about Rs. 69 lakhs. A contribution of Rs. 10 lakhs will be made to the fund in this year, and the expenditure that is expected to be incurred during this year and the next is Rs. 153 lakhs. In addition, a special allotment of Rs. 5 lakhs has been made for the amelioration of the backward classes. The Government will shortly appoint a Special Officer of the grade of a Senior Collector to be exclusively responsible for the formulation and implementation of a plan both for the development of the Agency tracts and for the amelioration of the conditions of the hill tribes.

A provision of Rs. 107 lakhs has been made in the next year's budget for the payment of advance compensation to zamindars whose estates have been taken over. The Government have, however, since decided to make the payment in this year itself.

Those of you who are Government servants or their dependents will welcome the decision recently taken by the Government to introduce a scheme of combined pension, provident fund and insurance in place of the existing pension system. The new scheme is designed to remedy the main defect of the existing pension system, namely that no benefits are payable to the family of a Government servant who happens to die in service before reaching the age of superannuation. As a beginning in the matter of providing accommodation for Government servants, it is proposed to construct 50 quarters at Todhunternagar.

A provision of Rs. 120 lakhs has been made in the next year's budget for granting loans to Building Societies, of

which Rs. 20 lakhs will be earmarked for Rural Housing Societies.

Revised Estimates

Just a word about the revised estimates for the current year. In my broadcast talk in November last, I hoped that the financial position at the end of the current year would be satisfactory. This hope has now been strengthened, and I expect that the year's transactions will result in a surplus of over rupees half a crore. This is after making a provision of Rs. 70 lakhs for remissions and postponement of kists and Rs. 24 lakhs for the relief of distress, consequent on the adverse seasonal conditions this year. The food position which was never satisfactory has now become a source of considerable anxiety to the Government; but I believe that with your co-operation and the assistance of the Government of India, we will be able to tide over the situation, as we have been able to do so far.

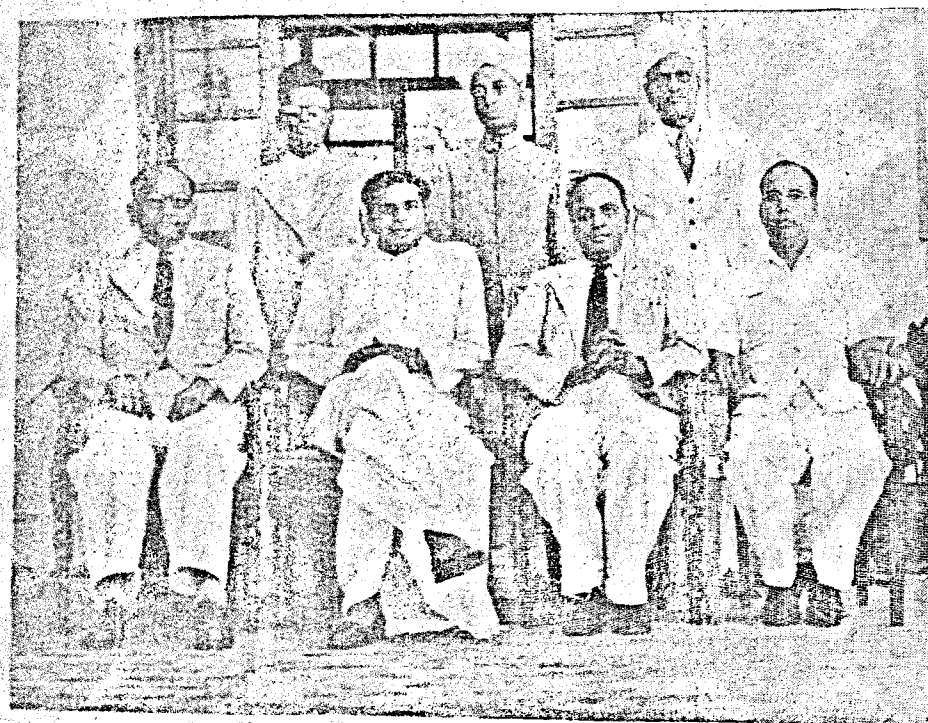
Some of you may be thinking that if allowance is made for the high level of prices, the increase in well-being of the people has not been in proportion to the increase in Government expenditure. But if you will consider the matter dispassionately, I am sure that you will all agree that appreciable progress in many directions has been made during the brief period of four years. The Popular Government have been in charge of the administration. Of course, we have still a long way to go before our goal of education for all and a reasonable standard of living for every one is achieved. There is, however, no short cut to this goal, and hard and sustained work by all sections of the community and fullest co-operation among them will be necessary before we can repair the ravages caused by the last War.

Budgetary Equilibrium

To keep the existing inflationary tendencies in check, it is necessary that we should maintain budgetary equilibrium as far as possible, and it is a tribute to the essential soundness of the finances of this State that without violence to this principle and with a very much reduced scale of assistance from the Centre (as I indicated to you in November last), it has been possible to provide for some expansion of developmental activities, particularly in the important spheres of education, medical relief, water-supply and improvement of communications. I also believe that most of you are with this Government in their policies in regard to Prohibition, Village Reconstruction and the encouragement of Khadi, which contribute as much, if not more, to the well-being of the people, as other lines of development. The Government will require large funds to implement their capital programme relating to Irrigation, Electricity, etc., schemes, and I have no doubt that the public-spirited people of this Presidency will give all their assistance to the loan programme of the Government, when it is announced.

The Constitution of India which we have given to ourselves just a month back sets before it, the objective of securing to all citizens Justice, Social, Economic and Political and of promoting among them all Fraternity, assuring the dignity of the individual and the unity of the Nation. It is for every one of us to realize what a great responsibility this Constitution has placed upon us. You

MEN BEHIND THE BUDGET



Sitting.—Sri P. M. Nayak, I.C.S. (Deputy Secretary), Sri B. Gopala Reddi, Finance Minister, Sri T. N. S. Raghavan, I.C.S. (Secretary), and Sri C. S. Krishnaswami Ayyangar (Additional Deputy Secretary).

Standing.—Sri P. Subramania Ayyar (Assistant Secretary), Sri R. Rangachari (Assistant Secretary) and Sri N. L. Ranganatham Pillai (Assistant Secretary).

EXPENDITURE ON NATION-BUILDING SERVICES

The following figures indicate the progress of expenditure since 1944-45 on nation-building services, excluding expenditure on buildings:—

	1944-5.	1945-6.	1946-7.	1947-8.	1948-9.	Revised estimate. 1949-50.	Budget estimate. 1950-51.
	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.
Education	3,66-16	4,59-72	5,90-27	7,03-70	8,85-93	9,41-61	9,95-08
Medical	1,52-62	1,80-00	2,15-98	2,38-49	2,76-54	2,79-54	2,83-57
Public Health	41-94	54-48	87-37	1,90-51 (a)	90-54	1,06-56 (a)	97-67
Irrigation Works (Revenue and Capital Accounts).	94-19	97-42	1,54-68	2,54-393,	96-31	5,97-17	7,12-43
Agriculture	48-11	74-06	1,05-70	1,16-93	1,26-74	2,40-89	1,87-99
Veterinary	20-09	23-64	26-95	31-81	40-58	47-36	47-15
Co-operation	22-04	30-93	44-33	42-69	53-41	78-77	79-16
Industries	65-14	72-49	97-78	1,12-75	1,20-36	1,58-06	2,07-76
Total	8,10-29	9,92-74	13,23-06	16,91-27	19,90-41	24,49-96	26,10-81

(a) Rs. 100 lakhs in 1947-48 and Rs. 10 lakhs in 1949-50 represent contributions to the Rural Water-Supply Fund.

may remember how that great Saint Thygaraja, dear alike to the Andhras and the Tanjilians, in his song beginning 'Enta nerchina', warned us not to take delight in giving pain to others, whether it be by casting covetous eye on their possessions, or by speaking ill of them, going even to the extent of inventing falsehoods. Let us take this warning to heart and by word and deed prove ourselves worthy to live in this Bharata Varsha, hallowed by the memory of Sri Thygaraja and Mahatmaji.

JAI BHARAT

Broadcast speech on the Budget for 1950-51 delivered by the Hon'ble Sri B. Gopala Reddi, Minister for Finance, Government of Madras, at the All-India Radio, Madras, on the 27th February 1950.

Madras Information

Published every month by the Director of Information and Publicity
Fort St. George

Vol. IV, No. 3

"WE SEEK TO SERVE AND NOT TO COMPETE"

March 1950



Top Priority For Food Schemes

H.E. the Governor's Address
to the Legislature

"The Madras Government is actively considering the steps to be taken to improve the food situation so that hardship to the people is minimised," declared His Excellency the Governor, the Maharaja of Bhavnagar, when he addressed a joint session of the Madras Legislative Assembly and Legislative Council at the first session since the inauguration of the Republic of India.

Text of Address:

I thank you all most sincerely for your courtesy in attending the joint session. I have often had the privilege of watching your proceedings before, but this is the first occasion I address the two Houses. A new era has just started in the life of our Nation and my presence here is only an indication of this new order of things. We have many difficulties ahead of us in this country. We must not under-rate these difficulties, but let us at the same time prepare to overcome them with a willing and ready spirit and sustained by confidence in our rulers at the helm of affairs whose leadership is one of which any nation may be proud.

Our Constitution has set forth great ideals before us and it is our duty to see that they are fulfilled. The destinies of more than fifty million of our fellow human beings have been placed in our hands, and it is our responsibility to see that these ideals are translated into action for the service and welfare of these millions. The dazzling illuminations with which we lighted up our public buildings on Republic Day can have no meaning unless we bring a portion of that light to the humblest and the meanest homes in our land and dispel the darkness of want and poverty, disease and ignorance.

Among our first responsibilities is that of bringing home to the millions of voters in this State their new duties. The elections under the new Constitution will have to be held in the near future. The new electoral rolls on the basis of adult suffrage are under print and after the new Electoral Law is enacted by Parliament, these rolls will be published as preliminary rolls, and finalized after disposal of claims and objections. My Government expect to be fully ready for holding the first general elections well in time.



Late Satavadhani Chellapilla Venkata Sastri,
Telugu Poet Laureate

The recent death of Satavadhani Chellapilla Venkata Sastri, the Telugu Poet Laureate, is a great blow to Telugu language and literature. Sri Venkata Sastri was born in 1870 in Enam (French Territory) in an illustrious Brahmin family. But he really belongs to Kadiam, a village in East Godavari, where he settled and led his life. He studied Sanskrit and Telugu under Sri Charla Brahmayya Sastri. Sri Venkata Sastri then had to go to Benares to perfect his Sanskrit.

Sri Venkata Sastri began his poetical career very early in life, when he began to display the wonderful art of 'Satavadhanam' along with his colleague, the late Sri Divakarla Tirupathi Sastri, an equally eminent scholar and poet.

The main factor that contributed to the wide popularity of these twin-poets not only among poets and scholars but also among illiterates is the wonderful art of 'Satavadhanam', which they displayed throughout Andhra Desa for nearly twenty years. For nearly 20 years they toured from Godval to Chennapuri displaying this wonderful art, honoured by Rajahs, Zamindars, scholars, poets and the common public.

Sri Venkata Sastri's literary activities do not end with 'Satavadhanam' which of course is the main factor for making him widely known throughout Andhra Desa and the outside world. He is equally a great poet and dramatist and an eminent scholar both in Telugu and Sanskrit. Some of the Sanskrit works are *Srungara Srungatakam*, *Dhataratnakaram* and *Kalidhasram*. All the literary works bear the names of both the poets. Their works comprise *Kavyas* and dramas including the famous *Pandava* series.

Sri Venkata Sastri was born at a time when Sanskrit and English had predominance over Telugu. To Sri Venkata Sastri goes the credit of rousing the morale of Telugu poets and making Telugu poetry regain its lost stature.

Improved Milling of Rice

Improved methods of milling paddy can increase the supply of rice in Madras State by nearly two lakhs of tons. Sri S. Varma, Honorary Adviser to the Central Food Ministry, who was in Madras carrying on investigations in this respect, has shown this by the experiments he has conducted in the different rice-producing centres of the State. As a result of the demonstrations he conducted in Tanjore District on January 31, it was found that with the existing huller type of mills the yield of both raw and parboiled rice could be raised by 4.1 per cent. This percentage, small as it appears, would mean a yield of something like two lakhs tons a year and thereby a saving of nearly 10 crores of rupees for the State.

The Collector of Tanjore District, the District Supply Officer and a number of leading millers who witnessed the demonstrations and later attended a meeting addressed by Sri Varma, are reported to have been satisfied that the samples of rice produced by his improvements conformed to the specifications laid down by the State Government.

Development of Village Roads

Steps designed to facilitate the development of rural communications are suggested in a resolution passed by the Standing Committee of the Legislature for the Ministry of Transport, which met recently at the Central Secretariat, New Delhi. The Committee resolved that villagers should be encouraged, either to contribute financially or to offer their services for the construction and improvement of village roads. The Committee approved proposals for grants from the Central Road Fund Reserve aggregating about Rs. 37 lakhs towards the cost of some twenty road and bridge schemes in different parts of the country. Important among these are the construction of a road from Dornala to Srisailam in Kurnool District of Madras, construction of high level bridges over the Vaitarna, Pinjal and Deherja Rivers on the Bombay-Rajputana Road, construction of a bridge over the Narmada River at Mortakka on the Khandwa-Indore Road, and the construction of three bridges in Coorg.

The Committee also approved proposals for expenditure from the Central Road Fund Reserve on the maintenance of the Road Test Track at Calcutta during 1950-51, and on the purchase and production of films on Road Engineering. On the question of development of the West Coast Road linking Bombay with Cape Comorin, the Committee decided that the State Governments concerned should be permitted to finance the project for the present from their own funds, subject to 50 per cent of the expenditure being reimbursed by the Central Government at a later date.

Fish Culture in Inland Waters

There are several lakes, tanks, ponds and wells in this State, which are capable of production of valuable fisheries. The demand for fresh fish in the interior parts is very great, and the natural distribution of these various inland waters is exceedingly favourable for the production and distribution of fish on a basis of regional self-sufficiency. Every village has its own tanks and ponds, and fish culture can be taken up by the villagers on the same lines as agriculture. Unlike the sea, the inland waters can be controlled and their productivity increased severalfold by proper manuring, stocking and tending. The pond can be fished whenever necessary.

The possibilities of utilizing small private ponds for fish culture and augmenting the supply of food have not received sufficient consideration in this State, while many foreign countries have long profited by this industry. It is now possible for the private pond owner to obtain from the Fisheries Department suitable fish for rearing and breeding purposes.

Fishes that are best suitable for culture in ponds are (i) the Major Carps, such as the Catla, Mrigal, Rohu and the Fringelipped Carp; (ii) Salt water fishes acclimatizable to fresh water, such as Chanoes and Etroplus, (iii) Cold water fishes acclimatizable to warm water, such as the Mirror Carp; and (iv) exotic fish like the Gourami. All these varieties thrive and grow well in ponds and tanks and thus yield a profitable fishery.

Excepting Etroplus and Gourami, these fishes do not breed in confined waters; the Mirror Carp breeds in confined waters but only above 45,000 feet elevation. The fry (young ones) of carps are however available in millions in the rivers from June to December, and those of Chanoes in the estuaries and tidal creeks. If properly stocked, at the rate of 1,500-2,000 fry per acre of water spread, an yield of about 1,000 pounds per acre can be realized, which will work out to Rs. 750 per annum at the rate of annas 12 per pound.

Government Tuberculosis Institutions

The Government of Madras have prescribed the following rules in respect of admission of patients into the Government tuberculosis institutions in the State.

No patient should come for admission to a hospital or sanatorium unless intimation regarding the availability of a bed is received by him from the authorities of the hospital or the sanatorium. Those who come without notice are liable to be refused admission either for want of beds, or if their cases are considered unsuitable for admission. No case from other hospitals should be sent to the tuberculosis hospital or sanatorium direct, but should be asked to attend the nearest tuberculosis clinic, if such a clinic is functioning within a reasonable distance. The opinion of the Director, Tuberculosis Institute, or the Superintendent of the Tuberculosis Hospital, or the Sanatorium shall be final with regard to the suitability of a case for admission.

General Wards

A separate waiting list of all suitable cases should be maintained by each tuberculosis institution. Cases seen at the out-patient department, namely the Government

Tuberculosis Institute, Egmore, which are found suitable for admission should be put on the waiting list. Admission should be made strictly in the order of priority of entry in the waiting list unless some emergency has occurred which requires immediate attention. Advanced cases, which have no chance of recovery, should not be put on the waiting list. Letters of recommendation received with regard to admission of patients direct to the hospital or sanatorium should not be taken into consideration but if on examination, the cases are found to be suitable, they should be included in the waiting list and should take their turn along with other cases.

All Government servants (not their families), if found suitable for admission, will be admitted immediately. Police constables will be given special priority over other Government servants. Advanced cases among Government servants should not be admitted unless it be for purposes of issue of medical certificates, invalidation certificates, etc. Emergencies, which require immediate attention, such as Haemoptysis, Spontaneous pneumothorax, etc. whether they are on the waiting list or not, and whether they are early or advanced cases should be admitted immediately and kept in the hospital or sanatorium till the emergency disappears. After that, if they are found suitable for treatment, their names will be included in the waiting list, on discharge from the hospital or sanatorium, and admitted when their turn comes. Patients sent by tuberculosis clinics and hospitals in the mofussil for operative procedure such as Thoracoscopy, Thoracoplasty, etc., should be taken in directly and sent back to the respective places after operation.

Patients sent from other hospitals for admission should also be put on the waiting list and admitted according to seniority in the waiting list. Only early cases of tuberculosis amongst convicts should be admitted in the Tuberculosis Sanatorium at Tambaram. In the case of the Wellesley Tuberculosis Sanatorium, Bellary, first priority should be given for the admission of convict tuberculosis patients on certificates issued by the Jail Medical Officers. If, on investigation, it is found that any convict patient is suffering from tuberculosis in an advanced stage, he may be kept on in the Sanatorium so long as there is a bed available for him and later transferred to the Tuberculosis Hospital for chronic cases, to be opened at Royapettah.

Special Wards

A separate waiting list should be kept for special wards in Government tuberculosis institutions. A registration fee of Rs. 25 should be charged for including a name in the waiting list for special wards and this amount should be remitted along with the application for admission. This amount will be adjusted towards hospital stoppages, payable by the patient when admitted. If the patient does not turn up within seven days from the receipt of intimation of the vacancy of a bed, and if no extension of time is obtained from the Superintendent of the Sanatorium, the registration fee collected will be forfeited to Government and the bed will be given to the patient next in the waiting list. Patients from other States will be admitted only in the special wards. When special wards are not available, a cottage can be built by the sanatorium authorities, provided the patient is prepared to pay the cost of construction of the cottage.

PROGRAMMES

Food Position

Seasonal conditions have been peculiarly bad, as in September 1949 the Ceded Districts as well as Krishna and Guntur were affected by floods, while the entire Ceded Districts suffered heavily from cyclone and heavy rains in October. Remission of land revenue and special expenditure for the relief of sufferers were sanctioned by Government promptly. In the South, the north-east monsoon failed for the third year in succession in certain central and southern districts and here also remission of land revenue will have to be granted. Regarding improving the lot of the agriculturists, my Government have taken action to intensify the minor irrigation works programme and a tank improvement scheme estimated to cost over Rs. 10 crores spread over a period of five years was sanctioned in August last. Schemes for the grant of subsidies to the ryots for sinking of wells have been in force since 1944 and Government have decided to extend the scheme to 1950-1951 also.

Owing to the damages caused by floods, etc., mentioned under the previous item, the food position in the State has assumed a very grave aspect. The estimated deficit is about 9.9 lakhs tons of rice and 2.9 lakhs tons of millets. Our deficits are usually made up by internal procurement and from supplies made by the Government of India. The internal procurement this year is bound to suffer very materially on account of the loss of crops due to adverse seasonal conditions already referred to. The Government of India have decided to drastically curtail food imports and this will have its effect as regards supplies by the Government of India. My Government are actively considering the steps to be taken to improve the situation so that the hardship to the people is minimised. In this connection they have undertaken a food production drive and all food production schemes will continue to receive the topmost priority. The Government have adopted a two-year plan for intensive cultivation and the scheme includes production and distribution of seeds, distribution of manure to the ryots, and schemes for mechanised cultivation by the use of modern agricultural machinery, such as tractors. The Government have also under active consideration the development of fisheries, both inland and marine, so that the food situation may, to some extent, be eased.

Land Revenue

The question of Land Revenue reform has been under the consideration of my Government for some time past. It was thought desirable to await the publication of the report of the Agrarian Reforms Committee appointed by the All-India Congress. The Government propose to constitute a committee of officials and non-officials to examine the present land revenue system and to formulate proposals for its improvement, if it is considered defective. The Committee will examine also the question of framing a Land Revenue Code for the State and such examination will also take into account the recommendations made by the Agrarian Reforms Committee. The Estates Abolition programme of the Government started in September last, when one batch of Estates consisting of six major Estates and 25 minor Estates were taken over. Government hope to take over the remaining estates before long. The rent

MADRAS INFORMATION

reduction work in the whole State has made rapid progress and is expected to be completed by the end of March 1950.

It is a matter for legitimate pride that this State has, in anticipation of Article 50 of the new Constitution, been able to make a good start for the introduction of a scheme for the Separation of the Judiciary from the Executive. This Scheme has already been introduced in six districts and will be extended to the remaining districts without any avoidable delay. The reform has been welcomed with enthusiasm and there is every reason to hope that it will prove beneficial.

Health of the People

The policy of my Government is to take all possible steps to protect the health of the people, prevent the occurrence of epidemics and provide for adequate medical relief. The rapid implementation of this policy involves large expenditure and what is even more important, the employment of large numbers of medical men who are not available. Very high priority will therefore be given to the expansion of facilities for medical education and training with a view to increase the output of medical graduates. Water-supply and sanitation being fundamental requirements in the campaign of prevention, a five-year plan of new water-supply and drainage schemes and improvements to existing systems will be vigorously pursued as a first instalment of a plan for the provision of protected water-supply within 20 years. With the co-operation of local bodies, public institutions and individual members of the public, it is hoped gradually to build up a scheme of public health and medical relief which will cover every part of the State and provide facilities and amenities to every citizen. In this attempt, all systems of medical relief, including our indigenous systems will be encouraged so that medical relief of some kind or other will be available in the rural areas. In particular, primary health centres under the modern system will be opened in the rural areas to the maximum extent possible and village Vaidyas will be trained to afford safe medical relief under the indigenous system.

In the field of Elementary Education, my Government attach the greatest importance to Basic Education and they will accordingly endeavour to provide for an increasing number of Basic Training Schools and Basic Elementary Schools. The Government have initiated a scheme of adult education as a first step in their campaign for the liquidation of adult illiteracy. In the field of Secondary Education, the Government will continue to implement a scheme of reorganization which was introduced in 1948. My Government have wholeheartedly co-operated with the Government of India's scheme for the formation of a National Cadet Corps.

Electricity

The Government's schemes in regard to the Electricity Department contemplate the supplementing of Hydro-electric schemes with Thermal schemes where ever necessary and the investigation of new Hydro-electric sources. Owing to the failure of the monsoon, water levels in the reservoirs have gone down and this has made necessary the introduction of certain restrictions; but agricultural loads are not affected and the Government always bear in mind that connections for rural and agricultural purposes

PROGRAMMES

MADRAS INFORMATION

POINTS STRESSED BY H.E. THE GOVERNOR

The points made in the Address, in which H. E. the Governor of Madras reviewed the position of the State were:

All food production schemes will be given top priority.

The Government have under active consideration the development of fisheries, so that the food situation may be eased.

The Government propose to constitute a committee of officials and non-officials to examine the present land revenue system.

Very high priority will be given to the expansion of facilities for medical education and training.

The Government attach the greatest importance to basic education and will accordingly endeavour to provide for an increasing number of basic training schools and basic elementary schools.

Irrigation: Several big and small schemes are under investigation, and it is the hope of the Government to have under execution an appreciable number of schemes in the near future.

The Government will continue their policy of giving all possible assistance for the development of Khadi.

Legislative measures to be brought before the Legislature include the Village Panchayats Bill for the Council, as passed by the Assembly, an amendment to the Madras Buildings (Lease and Rent Control) Act to remove difficulties found in its working, the Hindu Religious and Charitable Endowments Bill, and a Bill to amend the Madras Co-operative Land Mortgage Act, to permit land mortgage banks being organized in Malabar, South Kanara and other districts.

must have the highest priority. Shortage of materials is responsible for the outwardly slow development of Government's electrical schemes.

The Irrigation policy of the Government has assumed a new urgency because of the necessity to attain self-sufficiency in food by 1951. Every effort is therefore being made to accelerate the progress of the various sanctioned schemes such as the Tungabhadra, Lower Bhavani, Malam-puzha and other projects. Several big and small schemes are now under investigation and it is the hope of the Government to have under execution an appreciable number of schemes in the near future.

Rural Reconstruction

Intensive rural reconstruction schemes which the Government initiated in 1946 provide a democratic basis for the development of rural areas. The scheme has yielded good results in the areas in which it has been tried and Government have decided to extend it to 50 more Firkas in the State next year. Government will continue their policy of giving all possible assistance for the development of Khadi in accordance with the scheme which has been in operation since December 1946.

Government have pursued vigorously their policy of amelioration of Harijan and other backward classes. For the efficient implementation of this policy a Harijan Welfare Department was created on the 1st of April last and substantial progress has been achieved.

The Police Force continues to help to maintain law and order in an efficient manner despite the very heavy strain on it as a result of the subversive activities of

certain political organizations. My Government will appeal to all who have the interests of the nation at heart to co-operate with them in the task of maintaining law and order and combating subversive activities.

Programme of Legislation

The following is the programme of legislation drawn up by my Government:—

(a) *The Madras Village Panchayats Bill.*—This Bill is of far-reaching importance and will enable the Panchayats to undertake nation-building activities on a large scale. The Bill has been passed by the Assembly and will come before the Council during this session. The Bill implements Article 40 of the Constitution, under which the State shall take steps to organize Village Panchayats and endow them with such power and authority as may be necessary to enable them to function as units of Self-Government.

(b) In order to regulate the letting of all residential and non-residential buildings and to control the rents of such buildings, etc., my Government have enacted the Madras Buildings (Lease and Rent Control Act), 1949. In working the provisions of the above Act, certain practical difficulties have been experienced and it has been decided to amend the Act in certain respects. An Amendment Bill for the purpose is expected to be introduced in the current session of the Legislature.

(c) In pursuance of their policy of ensuring the proper administration of religious institutions and endowments the Government introduced the Madras Hindu Religious and

(Continued on page 26)

Women and the Production Drive

By F. L. BRAYNE

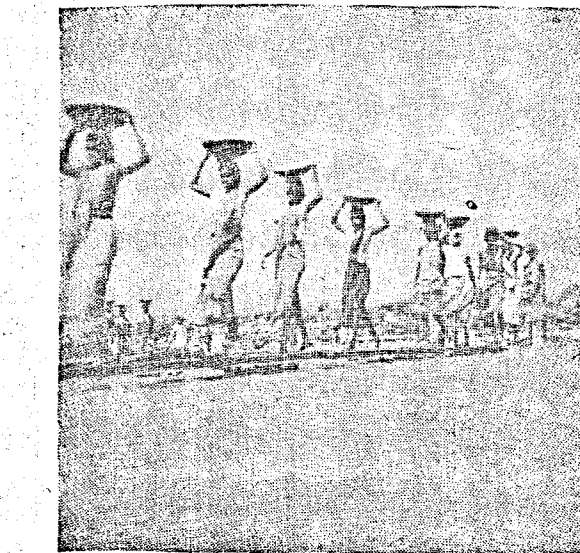
Sir John Boyd Orr has told us that the world must double its production of food in the next twenty-five years, or starve. This is a very terrible threat but we know it is true. Many millions of people in many countries are already underfed for part of the year and some of them are underfed all the year round.

What is the prospect in India and Pakistan? Besides barrages, canals and hydro-electrics and the big things which Government alone can tackle, there are innumerable small things which the experts and scientists have worked out for us. They require very little capital but a great deal of hard work, enterprise, knowledge, co-operative effort and a lot of thrift and saving. What effect would the doing of all these small things have on the food supply? The late Sir Albert Howard of Indore, compost fame, used to say that if people would only do the simple things recommended for the improvement of soil, water-supply, cattle and crops, the produce of the soil could be multiplied by three.

Simple things to do

May I give a list of some of them?

1. The stopping of erosion by (a) stall-feeding live-stock with food crops, ensilage and grass cut and carried from the pastures; (b) levelling and embanking all *barani* arable land.
2. Repairing, and if necessary putting bores into, and using for both harvests, all wells; better use of canal



water, smaller *kiaris* (compartments), clean straight channels, etc., and using all *jheels* and other monsoon water for irrigation.

3. Using the waste water from wells, houses and places of worship for growing vegetables.
4. Manure pits round the village; hayboxes instead of burning cow-dung; composting all vegetable waste; green manuring.
5. Good seed, good ploughs, harrows and other tools.
6. Sowing seed in lines, ridging, roguing, weeding, etc.
7. Simple pest control—light-traps; washing seed; destruction of rats and parrots, etc.
8. Selective breeding of livestock.

(Left)—A D7 bulldozer begins to uproot a palmyra tree. (Centre)—Pressure is exerted and (Right)—The trees begin to topple.



9. Quarantining for ten days all new animals before allowing them to join the others.

10. Using the co-operative organization wherever possible.

The list could be greatly extended but is long enough to show what I mean. These are all terribly simple things but if they were all put into use everywhere they would change the face of the country. Not all of the crops would be food crops but there would be enough to satisfy Sir John Boyd Orr's demand for doubling the food supply.

If it is all so simple what is the fuss about? Surely the people have only to be told about these things, to rush out and do them? Not a bit.

The problem

Wherever one goes the story is the same. The people won't take to these new things. They are quite happy as they are and will not do the extra work required, nor will they give up pet extravagances—weddings, feasts, silver ornaments, litigation and so on—in order to save money to buy good seed, good ploughs, stud bulls, new tools, or whatever it is that is needed to improve their outturn. In fact, their idea of a high standard is less work and occasional bursts of extravagance at weddings and so on, and when we suggest that they should work harder and save and scrape in order to grow more food and be better off, they think we are attacking their standard of living instead of trying to raise it.

What is the answer to this conundrum? How are people to be persuaded to do these things? What incentive, what stimulus can be found to move them to action?

It has hitherto been rather assumed that all that is necessary is to tell people of the new and better ways of working and living and they will automatically adopt them. That may be so in countries with a generally high standard of living which everyone is ambitious to achieve or to maintain, but it is far from being so among people whose standard is low and where malnutrition is common. In fact the very opposite is the case. To produce more food to improve health and to raise the standard of living requires very hard work, much saving and scraping, much self-denial and a complete break with old custom and traditions. To do all this requires high morale and an extremely powerful incentive. Where is the incentive among people

who are poor and undernourished, sunk in debt, and riddled with malaria, hookworm and other diseases that come from dirt, squalor and malnutrition?

Debt is no incentive. Debt bothers no one; it is normal and natural. Besides, the debtor fears that the only person who will benefit by his extra work will be the creditor. Hunger and ill-health are no stimulants to harder work. They produce the very apathy we are fighting.

And the Solution

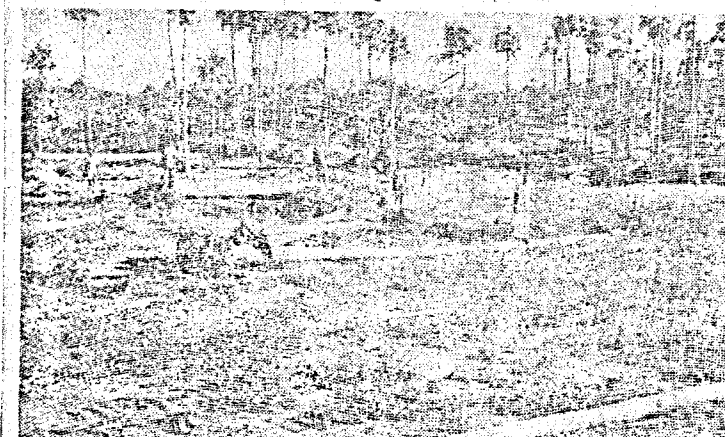
What then is the answer and the solution? Treated as an economic problem there is no answer. If we wish to escape starvation we must tackle the conservatism and apathy of the people not as an economic but as a social problem. The only hope of producing an incentive that will beat the desire for less work and occasional extravagance and will overcome the placidity of malnutrition and ill-health is to design a new way of life that is better than the debt and poverty, with their occasional feasts, and the ever-recurring hunger, dirt, discomfort, ill-health and squalor which this present way of life involves.

Having painted a picture of the new life—all can join in the task—we must not only convince ourselves but we must convince the peasant, that it is better than his present way of living. Such a picture was painted for the sepoys of the army during the last war. It was based on the work of Government Departments and of many pioneers, official and non-official, and was used for the pre-release training of the sepoys. It is described in many army pamphlets.

Role of the Housewife

I said that we must convince the peasant that a better life is possible. That is not quite accurate. The standard of living is the standard of the home and the standard of the home is the standard of the housewife, the *gharwali* who keeps it. It is she who must be enlisted in the campaign for better food and better living. All through nature, the strongest instinct of the female is the well-being of its family and that instinct must be developed and exploited. Once a mother is convinced that vaccination will save her child from smallpox, can you imagine her hiding her child from the vaccinator or going to the temple of the

(Left)—A vast area is cleared



(Right)—Uprooted trees are removed to one corner



goddess of smallpox for charms? Once she knows what is good for her children, she will insist on getting it.

Years ago at the National Institute of Agriculture in Rome, a Minister of the Belgian Government read a paper in which he proved that in a country of small farmers like Belgium, the women are responsible for more than two-thirds of village life. They run the home and bring up the children, they make and mend the clothes, they cook the food, they keep the family in good health and they make the home comfortable and happy. Everything that makes home worth living is in the hands of the housewife, and it is she who must provide the incentive we are looking for.

To become prime-movers, however, in raising the standard of living, the women must have far more knowledge than they have now. Not only must they have suitable education but they must have proper domestic training. Both in the schools and colleges and in the women's institutes or the co-operative society (why not have co-operative women's institutes?) they must be taught everything there is to know about running a house and making it nice, cooking a balanced diet, keeping a family in good health and good heart, making and mending clothes, and the hundred and one other things which every village housewife should know. The men have big departments to teach them how to run farms and keep cattle. The women must also have big departments to teach them how to run homes and keep families.

Food Advisory Committee

The State Food Advisory Committee recently held a two-day meeting with the Chief Minister, Sri P. S. Kumaraswami Raja, in the chair. Several interesting points relating to the food situation in the State were discussed at this meeting. A note containing thirty-six suggestions put forward by members in the last meeting of the Committee and the action taken by the Government so far with regard to each of those suggestions, was placed before the Committee and an interesting review followed. The members were gratified to find the Government giving due weight to their useful suggestions. Officials present in the meeting clarified the points raised by the members. Certain misapprehensions regarding artesian wells, the supply of water from the Mettur Dam, the fixation of prices for foodgrains and other questions were explained. The levy system proposed to be introduced in Coimbatore district was also explained. The members were informed that with a view to study the subterranean water resources of the several tracts in this State, certain proposals for the formation of an investigation division were under the consideration of the Government. The Government were also considering a proposal to set up an agricultural credit corporation.

Details regarding the progress of several items under the intensive cultivation scheme were also furnished to the members. From 1st April 1949 to the end of December 1949, nearly 29,000 acres of land were brought under cultivation with the help of irrigation schemes sanctioned by the Government. More than 28,000 wells were sunk and nearly

300 old tanks were repaired. By the supply of pumpsets, irrigation facilities were offered to 5,800 acres of land. In addition to these, dams and channels were improved, new tanks constructed, tube wells sunk and other minor irrigation works accomplished. As a result of these permanent improvement of irrigation facilities, about 14,000 tons of additional foodgrains are anticipated.

Under the land improvement schemes, contour bunding, clearance and reclamation of waste lands were implemented with due enthusiasm, with the result that nearly 36,000 acres of additional land were brought under the plough yielding roughly 23,000 tons of foodgrains. Ninety-seven tractors are at work at the various regions in the State, and more than 32,000 acres of waste lands were converted into cultivable lands. By contour bunding, cultivation in more than 4,000 acres was made possible.

Various supply schemes, of which the distribution of fertilizers, distribution of manures and distribution of good variety of cereal seeds are worth mentioning, were included in the intensive cultivation schemes; 34,741 tons of ammonium sulphate and 9,955 tons of ammonium phosphate were distributed to the agriculturists, while compost manure and green manure seeds to the extent of 22,970 tons were supplied to enable them to produce nearly 9,600 tons of foodgrains. Arrangements have been made to distribute improved paddy seeds and millet seeds to the farmers, thereby enhancing production by nearly 15,000 tons.

What Wives Want

Once the village women have this knowledge, they will be for ever striving to make their homes lovely, and they will compete with each other, not in the weight of their earrings but in the brightness of their homes and the happiness of their families. The women will then encourage their good men to grow the best crops or to carry on their craft in the best way possible. Why? Because they want just one more thing, a sewing machine perhaps or mosquito nets, or whatever it is, to make the home better. And each new thing will lead to another new thing. Our battle is won—the ambition for a higher standard of living has come upon the peasant and he will work hard and willingly to achieve his ambition.

All over the world, it is difficult to persuade peasants to try new things. Where the women are uneducated and untrained, it is more than difficult—it is impossible. The key therefore to the success of the food production drive is to design a better way of living and bring the vision of it literally to every home in the land. The women, no less than the men, and the girls no less than the boys at school, must be so educated and trained that they will be convinced that it is so much better than their present manner of living and is so obviously possible to achieve that they will gladly do all the work, the saving and scraping, the self-denial and the abandonment of bad customs and prejudices that are necessary to bring their vision to life in their homes.

Increased Production Through Improved Seeds

One of the surest methods of increasing food production is by use of improved seeds as this alone ensures an additional yield of at least 10 to 15 per cent in production. The Grow More Food Campaign, therefore, attaches great importance to schemes of seed multiplication and distribution with a view to putting under improved seeds as much of the present area of 130 million acres under cereals as possible by the target date fixed for self-sufficiency in foodgrains. Assistance to the States, both by way of subsidies and loans, has been given by the Government of India for organizing seed multiplication and distribution schemes. During last year, a sum of about Rs. 3,50,000 was sanctioned by the Central Government for seed multiplication schemes in Madhya Pradesh, Travancore-Cochin Union, East Punjab, Pepsu, Mysore, Bihar and Vindhya Pradesh. This sum is in addition to subsidies and loans sanctioned for intensive cultivation schemes in general which also include measures for improving the seed supply.

According to present estimates, the percentage of acreage under improved seeds ranges widely among States, between 1.2 per cent to 9.7 per cent. In particular States, however, e.g., in the Madhya Pradesh and in Madras, the area under improved seeds is considerably more, namely 22.7 per cent and 23.2 per cent respectively.

State Plans

Under the present plans a production target of 1½ million maunds of improved seed each year is aimed at and a number of schemes have been formulated in most of the State Governments. The Uttar Pradesh, Madhya Pradesh, Bombay and Bihar expect to increase by 1951-52 their seed supply by nearly 250 per cent over the present production. West Bengal and Orissa propose to expand seed production by about 3½ and 7 times respectively during the same period. According to these plans, most of the States may be able to cover nearly 50 per cent of the area under foodgrains with improved seeds. It has also been arranged that those parts of the Indian Union where at present arrangements for the production of improved varieties of seeds do not exist should be helped by the contiguous areas which have the necessary facilities.

Registered Growers

The general method of seed multiplication and distribution is to provide the nucleus seed by the Agriculture Department for their multiplication through registered growers. These latter are usually of two categories. The first category, termed as "A" class growers, to whom the nucleus seed is supplied by the State Agricultural Department returns to the Government, at some premium, the crop from the multiplied seed at harvest time. This stock is again distributed to a large number of "B" category growers for further multiplication. It is at this stage that a sufficiently large quantity of pure and improved varieties of seeds should become available to the farmers at a reasonable price.

Multiplication and selection of seeds should be taken up under expert supervision in order to avoid any possibility of mixture with local varieties. The Central

Government have, therefore, advised the State Governments to increase the numbers of Government farms where nucleus seeds should be produced and to select carefully "A" and "B" class growers so that the seeds multiplied do not suffer in quality.

Immediate Need

As a temporary measure and till sufficient stocks of improved seeds are made available in the country through the procedure indicated above, the Central Government have advised the State Governments to ensure that the farmers multiplied whatever quantity of improved seeds they got from the Government stores. With little effort on the part of the cultivator this can be done, for, even if one begins with as small a quantity as one maund of wheat seed, he gets 10 maunds in the next and in five years he would produce as much as 10,000 maunds. Such a procedure calls for a very careful selection of the best plant for seed purposes and it is essential that the States make their farmers realize the importance of properly selected varieties which they get from the Government. It is also important to ensure that the seeds which can be used for further multiplication and improvement of the stock are not used for home consumption and are not mixed up with unselected local varieties.

Printing of Posters

The Government have reason to observe that the restrictions in force on the printing and exhibition of posters, under clause 11 of the Paper Control (Economy) Order, 1945, are not being strictly followed by managements of Litho and other printing presses in the State. For their information, the nature of the various restrictions are indicated in detail below:

- (1) Printing and exhibiting posters in paper other than poster paper is prohibited.
- (2) Printing and exhibiting posters exceeding 600 square inches in area are prohibited.
- (3) Affixing of posters within 100 feet of any other poster displaying identical or substantially identical advertising matter except at the premises to which they relate is prohibited.
- (4) Exhibiting of posters advertising or relating to the sale of newspapers, news-bulletins, magazines or periodicals is prohibited.
- (5) Exhibition of posters giving news is prohibited. Such posters may however be exhibited if printed on newsprint which has previously been printed completely on both sides.
- (6) No person is allowed to print or exhibit any poster advertising or relating to the business of any money lender, bookmaker or commission agent for bets or any pool, competition or fixed odds betting scheme.

All lithographers and proprietors of printing presses are requested to strictly conform to these regulations in order to avoid contravention of the Paper Control (Economy) Order, 1945.

Cinchona Cultivation for Quinine

Few people probably know that the Cinchona tree is being cultivated on a large scale by Government in our State for the manufacture of quinine and other Cinchona alkaloids required in the treatment of malaria. Though there is a small amount of private enterprise in Cinchona, its cultivation has mainly devolved on Government on account of the fact that Cinchona cultivation is not as paying as tea or coffee and has therefore less attraction for private enterprise. Moreover, Cinchona is a hill crop and grows only in particular places and under certain climatic conditions. The Madras Government Plantations are located both on the Nilgiris and Annamallais Hills. Cinchona cultivation in Madras Presidency was started as early as 1860.

Malaria has been described as one of the greatest scourges of mankind and has caused much greater loss in lives and material than world wars. No single disease is said to cause greater sickness and mortality than Malaria. In India, more than one million lives are taken toll of annually not to speak of another million, who, weakened as a result of malaria, fall an easy prey to other diseases like typhoid and tuberculosis. It is essentially a rural disease in our country and the loss in efficiency and manpower to the agricultural production of the country can easily be imagined. It is believed by eminent men on the basis of adequate data that if proper curative treatment could be elaborated for this single disease, India can be converted in a single generation to one of the most prosperous and healthy countries of the World.

Origin of Quinine

The natural product, Quinine, which has withstood the test of time and experience is even today considered by most medical men as the only sure remedy for recurrent malaria.

In the dark mountainous regions of the Andes in South America, Nature gave to mankind one of her most precious gifts in the form of the Cinchona tree. The value of the Cinchona bark as a curative to malaria was known as early as the year 1600, when the Incas, the aborigines of the area were said to use strips of the bark for curing "chills and ague." The property of the bark then came to be known to the Spanish Jesuits who were then serving in Peru; through their good offices, and that of the Countess of Cinchon (after whom the genus is named) the wife of the then Spanish Viceroy in Peru, the bark found its way into civilization in Europe in the year 1540. It continued to be used in the form of bark decoction in Europe until 1820, when the French chemists isolated the alkaloid quinine—which is so very lethal to the malarial parasite—and in 1859 extraction was started on factory scale. In the year 1850 the Dutch sent out an expedition to South America and in 1854 Dr. Hassakarl first introduced Cinchona into Java.

Plant comes to India

At the suggestion in 1835 of Dr. Forbes Royle, the Superintendent of the Botanical Gardens in Saharanpur, the East India Company decided to introduce Cinchona into India, and in 1859 Clement Markham was sent to scour the wilds of the Andes for Cinchona seeds.

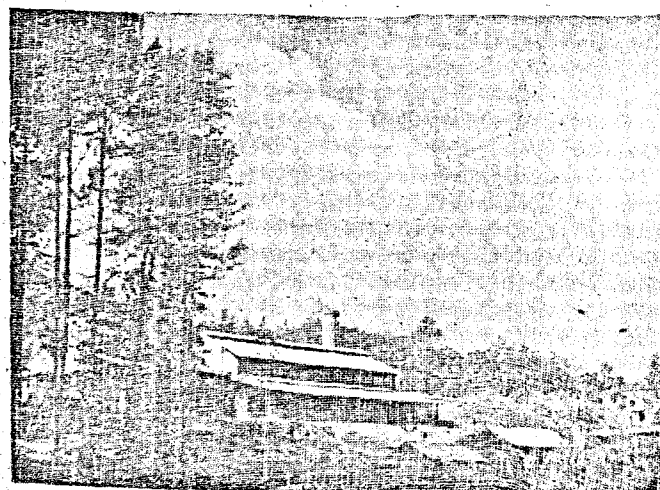
After a series of hazards—including those attendant on converting a wild plant from one side of the world into a cultivated one in another—the plant was introduced in Doddabetta near Ootacamund in the year 1860, and W. G. MacIvor, the then Superintendent of Government Botanical Gardens, took up the difficult task of acclimatizing and converting the plant on a large scale. In the year 1861 MacIvor sent a small quantity of seed to Ceylon, and cultivation of Cinchona in the island started that year. The need for exploiting the northern areas in India came to be realized very soon and in 1863 Cinchona plantations were established by Dr. Anderson on the Mungpoo Ridge in Bengal with the seed obtained from MacIvor at Ootacamund.

Immediately after the receipt of the seeds and plants from Clement Markham in 1860, MacIvor took up the work of evolving a successful technique for the raising of Cinchona and its aftercare in the plantations, and it is mainly due to his classic work that the Cinchona industry came to be established in this country. His great career, however, ended in 1876 with his death. It was not the intention of the Government at that time to embark on any large-scale planting of Cinchona; but their main object was only to encourage and help private enterprises.

However, two years after the commencement of planting it was found that there was a complete absence of expected enthusiasm on the part of private planters to grow Cinchona on a large scale and it therefore necessarily devolved on the Government to increase their plantations. It was decided that annually an area of 150 acres should be planted for ten years at Doddabetta and Naduvattam and that the cultivation should be extended over other hilly tracts like Coorg, Palnis, etc.

Boom and Crash

Not long after, however, private planters, seeing the successful performance of Cinchona in the Nilgiris Hills became interested in the growing of Cinchona, and at the



The Government Quinine Factory, Naduvattam

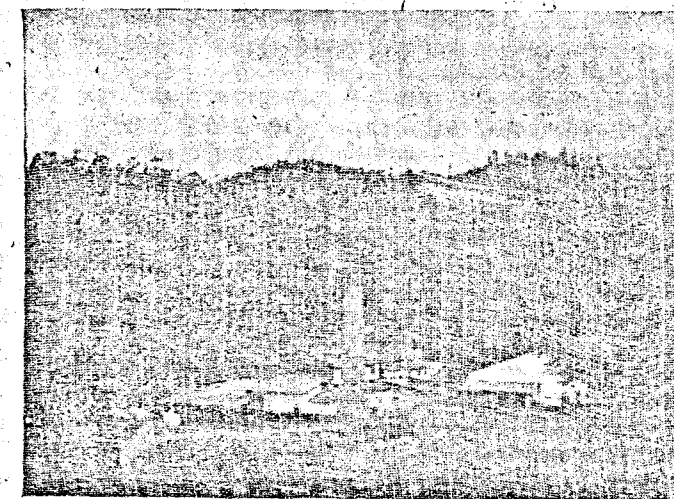
orders of the "Home Government" (British Government) plants and seeds were freely given to them. Thus by about the year 1880 India had 10,000 acres under Cinchona (Madras with about 2,500 acres) compared, however, to 33,500 of Ceylon and only 7,500 of Java.

This great boom for planting, however, was very short-lived, and between the years 1880 and 1890 there was such an over-production of bark and dumping of Ceylon bark into India that there was a great drop in the price of bark; and the Cinchona industry in India, which was built over the graves, sweat and toil of numerous enterprising botanists and philanthropists, crashed suddenly. Ceylon followed suit soon after. In India alone about 5,000 acres planted by private enterprise went out of cultivation in preference to tea and other plantation crops which were more paying but probably less "humanitarian" in their aspect.

It could thus be seen that the early failure of the Cinchona industry in India was not so much due to unsuitability of Indian conditions to the growth of Cinchona as wrongly believed—or due to lack of private enterprise, but due to some sort of lukewarmness on the part of the then Government to make anything beyond a feeble attempt to keep the industry flourishing. If proper protection had been given to the industry by imposing import restrictions on Ceylon Cinchona bark, affording scope for export of surplus bark, and by supplying scientific methods to cultivation, our position with regard to supplies of Cinchona products would have been far better, particularly during and after the War years.

Progress in Java

From the wreck of this industry, only Java survived. To an observer, the position resembled a hurdle race in which Ceylon and India stumbled and Java continued to proceed. The reasons that enabled Java to weather the storm were mainly the close scientific control that used to be exercised from the very early stages of the industry and the avenues for export of bark given by the Dutch Government of Java, besides probably to more



Factory with plantation in background

favourable environmental conditions for the growth of Cinchona.

In the year 1913, the Kina Bureau of Java, an association of Cinchona Producers of Java, was formed, and this further strengthened the Java industry and enabled it to survive another great slump in the quinine market between 1909 and 1912. Thus Java which had started planting Pinchona about six years earlier than India but which had only about 75 per cent of India's acreage in 1880, had, in 1939, just before the commencement of World War II, come to occupy the position as the premier quinine producing country of the world, supplying nearly 97 per cent of world requirements and about 70 per cent of India's consumption at a price in the Indian market much lower than that of the Indian product itself.

Expansion in Madras

When rumours of the possible retirement of Java reached India in the first decade of this century, need was felt to resuscitate the Cinchona industry to keep up the supply of quinine in India, and in 1916 a scheme for the planting of 22,000 acres of virgin forest land in the Annamallais Hills was approved by Government, but not ultimately sanctioned till about early 1925.

Till 1930 the progress of planting in Anamallais was good and about 939 acres were planted. There was no expansion for a period of seven years till 1938. When the Congress Government took over the administration of Madras State in the year 1937 they anticipated the possibility of supplies of quinine being cut off by the war that was threatening. As a result of the very keen interest taken by them, expansion of the Cinchona Plantation was taken up again and today the Anamallais can boast of a total of about 7,125 acres, with most areas here surpassing in growth, it is understood, the best plantation in other countries. The expansion of the plantations is expected to go on in full swing for some time to come. The success achieved has also been an incentive to a few planters in Anamallais and Coorg to expand their areas or to take up fresh cultivation of Cinchona.

The Madras Cinchona Department, needless to say, has evolved from the experimental station on the Nilgiris started as early as 1860. Today it is a distinct unit under the Development Department of the Madras Government. This is treated as a commercial department and has a capital outlay of about 120 lakhs. Its administrative and technical head is the Director with his headquarters at Ootacamund and he is assisted at the head office by a Personal Assistant and Chief Accountant in his general administrative and directive control.

Plantations and Factory

The departmental plantations are located both on the Nilgiris and Anamallais. The Nilgiris plantation which is the older, is under the charge of a Superintendent assisted by one Assistant Superintendent and other field staff and comprises seven divisions, viz., Naduvattam, Moyar, Hooker, Wood Estate, Doddabetta, Devashola and Cherangode. The total area is about 2,300 acres under Cinchona and ranges in elevation from about 3,000 feet to over 8,000 feet.

The Government Quinine Factory is situated at Naduvattam and is in charge of a Manufacturing Chemist. All the bark from the Nilgiris Plantation is extracted in this factory. The Anamallais Plantation is of more recent origin, having been started in 1925. It has to-day an acreage of 7,125 actually under Cinchona and consists of eight subdivisions. It is under the charge of a Superintendent assisted by five Assistant Superintendents and a number of other field staff. The elevation of the Anamallais Plantation ranges from 3,200 to 4,000 feet and has a very moderate climate which is neither too chilly nor too warm.

"Death Valley"

The main plantation is situated at a distance of fifty miles from Pollachi, the nearest railway station. This plantation is probably the biggest single unit of plantation in South India, and its vastness can be realized if it is stated that to reach the furthestmost point of the plantation from the main gate a distance of twelve miles by road, plus four miles by foot, has to be traversed. When the plantation was originally opened it was known as the "Death Valley of South India" on account of its highly malarious nature; but with the opening up of the area into a plantation the scourge of malaria has been controlled to some extent. The planted area alone is over twelve square miles in extent and there are about 120 officers and staff and about 10,000 labourers. The conditions under which the officers, staff and labourers have to work are exceedingly arduous, in spite of the sublime picturesque setting of the plantation nestling in the bosom of the Kallar valley, lulled by the music of the Kallar river.

All the staff and labour employed in the various Cinchona Plantations and factory are given rent-free Government quarters and are provided with good water-supply, as far as possible, free medical aid, labour schools, co-operative stores and canteens.

A large Government hospital with accommodation for 68 beds, X-Ray units, etc., in the Anamallais at a cost of about rupees nine lakhs has nearly been completed.

Extraction and Research

The bark from the Anamallais Plantations is now transported to the Naduvattam factory for extraction but with the very large expansion of the plantation in recent years it was decided by Government to put up a modern quinine factory on the Anamallais at a cost of about rupees twenty-five lakhs so that the bark obtained from this plantation will be extracted there itself. The factory is under construction now and is nearing completion. It has a rated capacity to produce 80,000 lb. of quinine sulphate per year.

There is a separate research section known as the Propagation section. The section is carrying on vegetative propagation of high yielding plants and also the isolation of superior types of Cinchona. The results so far achieved by this section have been very encouraging and large-scale commercial planting is being done with high yielding and vegetatively propagated plants. Some of the methods which are being adopted for vegetative propagation by this section are original to this Department. Trials are also being conducted on the manuring of Cinchona to obtain the best results. The Anamallais Plantation had in it a world record Cinchona yielder containing 17 per cent quinine sulphate. The mother tree is now dead but the Propagation section has built up from it many thousands of true-to-type progenies.

The various finished products manufactured by the Madras Cinchona Department are:

- (1) Quinine sulphate powder and tablets;
- (2) Quinine hydrochloride powder and tablets;
- (3) Quinine bi-hydrochloride or acid hydrochloride, powder;
- (4) Quinine salicylate powder;
- (5) Quinine hydrobromide powder;
- (6) Quinine bi-hydrobromide powder;
- (7) Totaquina powder and tablets; and
- (8) Cinchona febrifuge powder and tablets.

All the various products are distributed by the Superintendent, Central Jail, Coimbatore.

India's Annual Requirements

In the year 1947 the Bhore Committee estimated the annual requirements of quinine for India at 15 lakhs of pounds for completely eradicating malaria. At the Quinine Conference held in Delhi in April 1948, the target quinine production for India was fixed at 2½ lakhs of pounds per year, of which Madras alone has to produce 1½ lakhs. The present production in the country is 80,000 pounds with Bengal producing 60,000 and Madras the balance. Bengal has a scheme for a further 40,000 pounds production. Madras can produce another 80,000 pounds when the Anamallais factory starts functioning. The total annual production in India thus works up to 200,000 pounds. This still leaves a deficit of 50,000 pounds which probably would have to be made up with foreign imports.

Madras City Police Act

The Government of Madras have extended with suitable modifications, certain specified sections of the Madras City Police Act, 1859, to Kallakurichi town and Chinnasalem town in South Arcot District.

Happy Colony Of Hard-Working Patients

Cradled amidst three hills and covering a hilly expanse of over 640 acres, the Government Lady Willingdon Leprosy Sanatorium at Tirumani, a few miles away from Chingleput, is the site of a happy colony of hard-working patients who are battling infirmities and disease to prove themselves industrious citizens of a new community. Even in these apparently enlightened days the term 'Leprosy' has a sinister significance to many; to the average individual it connotes hideous disfigurement, incurable wasting of features and limbs, a living death. Actually, however, it is nothing of the kind, and the authorities at Tirumani work with missionary zeal not only to combat and refute this fallacious lay view but also to help the patients realize that the Sanatorium is not 'a cesspool of derelict humanity drowned in its own despair'.

At Tirumani the accent is as much on welfare work as on medical care. Treatment for leprosy patients is tackled both by medicines and by socio-economic rehabilitation measures. While new lines of treatment using the latest drugs are constantly being tried out and tested for arresting the disease if not effecting a cure, alongside social welfare work is pursued to give the patients incentives to recover and adopt normal avocations within limits. The patients are encouraged in every way to busy themselves with programmed activities like agriculture, carpentry, weaving, knitting, spinning, smithy work, education, games and sports.

Leprosy is of two kinds—infected and non-infected. In order that the Sanatorium may prove most useful to the people, non-infected cases are not entertained. The colony with nearly 77 blocks of buildings including dormitories of children, two hospitals and operation theatre and blocks of rooms for the patients, provides accommodation for over 800 patients—men, women and children. There is a steady increase in the number of out-patients seeking admission, averaging 20 per day. Patients from 100 villages come to Tirumani for out-patient treatment every Wednesday. The number on the register is over 1,500 of whom about 400 are infected cases, but the average attendance on injection days is about 200, as the patients are unable to keep up regular attendance.

The 800 inmates, including 200 children, get the full benefit of the community establishment that is Tirumani. Barring a few who stay as paying patients, all the others are admitted free at Government cost. Since taking over this institution from the Church of Scotland Mission on April 1, 1948, the Madras Government have been spending nearly three lakhs of rupees on it; no other Government is believed to be spending so much money on a single leprosy sanatorium. Dr. H. Paul, M.B., B.S., who took over the Sanatorium in the absence of Dr. R. G. Cochrane, M.D., F.R.C.P., Honorary Medical Superintendent, now continues as Superintendent. Dr. Cochrane has since been relieved to take up his new appointment as Honorary Consulting Leprologist and Honorary Director, Leprosy Research. With the exception of a few, the entire staff of the institution is recruited from among the employees



Patterns

of the previous management recommended for absorption into Government service.

But the main feature of the working of the Sanatorium is that most of the services are manned by the patients themselves. The patients act as nurses, ward-boys, attendants and give injections; a small grocery shop selling the minor necessities and luxuries of life like soap, cigarettes and so on, is managed by a patient. A patient-tailor and a patient-barber are always busy; a master-cobbler, formerly of a premier Madras leather goods shop, now makes shoes and leather articles for the colony. Under the direction of the Orthopaedic Surgeon he also makes artificial footwear for crippled patients. The Sanatorium is in fact a city in miniature, a microcosm whose cross-section provides an interesting assortment of humanity.

Occupational Therapy

At Tirumani one can find able and willing volunteers for intellectual, executive, mechanical or manual labour. Clerical jobs are in the hands of patients. Electrical jobs are undertaken by a patient who can tackle anything from a burnt fuse to illuminations for Republic Day. The kitchens and canteens are also managed by the patients themselves; only the children are exempt from this chore. Works like gardening, sweeping, conservancy, etc., are similarly tackled boldly on a self-help basis. To provide incentives to the patients all work is paid for, at the nominal rate of two annas per day; heavy manual labour gets three annas per day.

Vocational Welfare

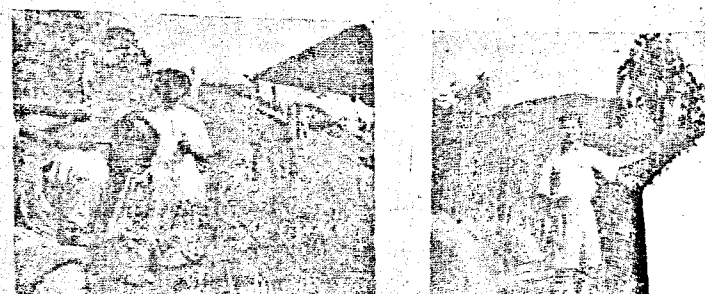
In order to co-ordinate welfare and occupational work and organize vocational therapy on sound lines, Sri N. Ramakrishna Ayyar was appointed as Honorary Welfare Officer. To him goes the credit of not only initiating the khadi movement in the colony, but also of reorganizing the carpentry, weaving and smithy sections. Agriculture is also a popular occupation and the Kitchen Garden of the colony is lush with tomato vines, knol-khol beds, beans, etc. Most of the vegetables grown are taken by the patients and the staff, but still a fair quantity is available for sale to the general public. Although there is no danger of infection, the vegetables are gathered by non-patients so that a foolish stigma may not prevent sales.

The policy with regard to occupational work is this. All patients unless completely incapacitated are made to do

Left.—Planting Cinchona Right.—Cinchona nursery.



Left.—Transplanting of seedlings Right.—A four year-old plant





Making a small purchase



Spinning session in the Women's Quarters



Smithy Section attends to a variety of jobs

some productive work which has a therapeutic effect on the patients, creating a sense of self-respect in them and ultimately making the institution progress as far as possible on the road to self-sufficiency. Side by side this has also been the basis for schemes for rehabilitation of the patients upon their discharge from the Sanatorium as non-infective cases.

Of the 786 patients in the Sanatorium, 55 adults are more or less crippled and incapable of doing any work. 373 adults are engaged in the following vocations:

	Men	Women	Total
Medical	35	20	55
Industrial	84	58	142
Agricultural	45	11	56
Educational	14	1	15
Social work	49	3	52
Hygiene	16	..	16
Office	8	..	8
Miscellaneous	27	2	29
Total	278	95	373

Besides 240 adults do khadi spinning either exclusively or along with other occupations. All boys and girls have regular spinning sessions as part of their class work; older boys do carpentry, weaving and agriculture also. The boys and girls are thus fully engaged in some occupation, either educational or manual; they are not allowed to idle away their time.

Creative Work

The carpentry, smithy and general workshops attend to routine repairs to fittings, machinery and structures round the Sanatorium in addition to original creative work. The Carpentry Section makes all kinds of furniture for office, sanatorium and hospital work; recently the section has been given some outside orders too.

The Weaving Section makes most of the cloth required for the Sanatorium use as dhoties, saris, bandage cloth; it undertakes dyeing also. On the five looms available only mill cloth is woven at present, but two khadi looms are being erected. When these are ready, the 4000 hanks of yarn spun monthly at Tirumani will also be woven here, instead of being sent to A.I.S.A. centres. The Smithy does all kinds of tinker jobs and makes small tinware and aluminium articles.

Men and women are encouraged to take up knitting, crocheting work and embroidery. Despite the severe handicap of stubbed fingers, excellent work is done by the patients. Some of the finest patterns were embroidered by a male patient who works with only two fingers on each hand.

Education is not neglected, and the children attend regular elementary schools recognized by the Education Department. Steps are being taken to introduce the Basic Scheme, on the suggestions offered by the Basic Education Officer. There is also a Government recognized Industrial School where carpentry and cabinet making are taught to the older boys. The adults have a night school and Hindi is taught here.

Sport and Pastime

All sports, games and athletic activities are encouraged to the fullest extent. The patients play a vigorous game of football on a grassy field flanked by a hillock. Badminton and tennis are popular games and the frequent tournament matches are keenly contested. The cult of the body finds its votaries among those who train at the parallel bars and rings. In January last the Sanatorium holds its annual sports with track and field events; a gruelling cross-country run was done in record time.

A Dramatic Society organizes stage entertainments every two months. The dramas in Tamil and Telugu are prepared, enacted and produced by the patients, and the performances are said to maintain a fairly high standard of histrionic ability. Music concerts and bhajan parties are frequently held where violin, reed organ and *tabla* are played with ease and enthusiasm. Tirumani has an open-air theatre where monthly cinema shows, complete with sound, are held; current film attractions are screened through the generosity of philanthropic distributors.

The common library-cum-reading room is frequented by all. Here leading English and Tamil newspapers are available; the collection of books includes a goodly selection of religious literature. A literary society, organized by an Oxford graduate, arranges lectures and discussions.

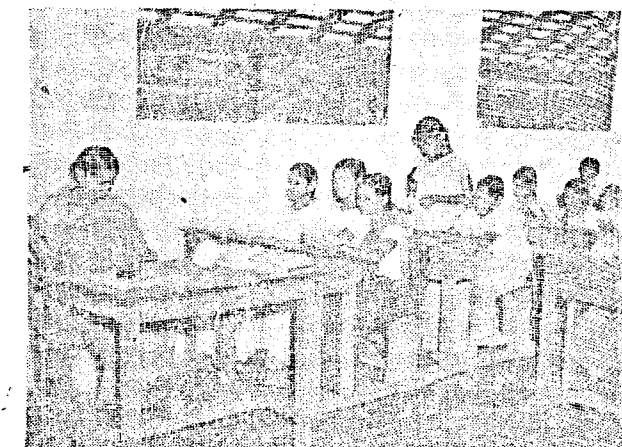
At Tirumani attention is paid to the spiritual side of life also. A Swamiji from the Ramakrishna Mutt visits the mandir at the Sanatorium every Friday; missionaries attend the chapel on Sundays. There is also a mosque for Muslims. But the rigid external differences of religious demarcation are not observed at Tirumani. A common bond unites the patients at prayer; all festivals of the various sects are observed with due respect and ceremony.

Medical Care

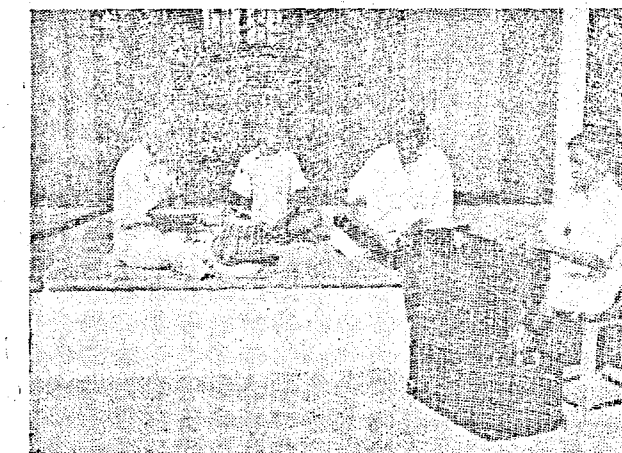
The patients follow the full life and unlike other invalids, rarely spend their time in bed in a hospital ward. The bed strength of the hospital is 60 in two hospital blocks of thirty beds each. Patients are hospitalized when they suffer from temporary ailments as lepra-reaction, secondary infection of ulcers or when they need minor surgical operations. Otherwise they are ambulatory, coming to the clinic only for injections.

The usual treatment given to patients is the time-honoured chaulmoogra therapy (Hydnocarpus drug) but from June 1948, Sulphone drugs have been used on a larger scale. Intradermal injections of esters of hydnocarpus oil for patches are given, and these are very efficacious when given regularly, especially in early cases. Dr. Cochrane and his co-workers introduced parenteral administration of Sulphone in the form of Sulphone in suspension, Sulphetrone in emulsion or Sulphetrone in solution. By this means it has been possible to minimise the cost of administering the drug on a large scale; the cost now works out to a tenth of the original estimate.

Recently, with the help of an orthopaedic surgeon from the Missionary Medical College, Vellore, special orthopaedic work has been introduced to rectify as far as possible crippled limbs such as arthroplasty for claw hands, tendon transplantation for drop feet and defects of the thumb.



In the classroom



Music parties are always popular



Work in the Kitchen Garden

Efforts are also being made to find ways and means to prevent the persistence of 'tropic ulcers' for which research is also being carried out.

Research

The Research Department at the Government Lady Willingdon Leprosy Sanatorium was established for the purpose of undertaking research work not only in regard to treatment but also in regard to the pathology of the disease, prevention of the disease and the development of the disease. Research is being carried on at Tirumani on the relative merits of the sulphone drugs—blood levels, skin levels, detailed records of patients undertaking this therapy, complete with histopathological notes and photographs.

Leprologists are usually reluctant to announce the discovery of so-called 'miracle drugs' lest they raise false hopes—in leprosy relapses after years of apparent recovery are common—but very important technical discoveries have been made in connexion with the pathology of leprosy and the Research Department has the inestimable advantage of co-operation with Dr. V. R. Khanolkar, the outstanding Indian Pathologist of the Tata Memorial Hospital, Bombay.

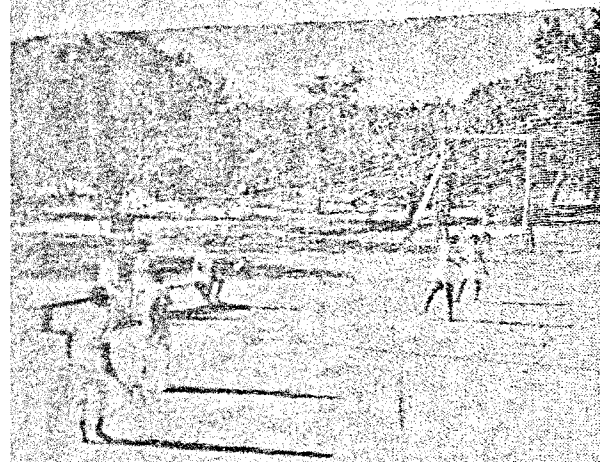
The Research Unit works on control of leprosy, prevention and correction of deformities. Work in rural centres like Madurantakam has shown significant results indicating that control is directly proportionate to the effectiveness of segregation of infective cases, especially from night contact with children who are susceptible to infection. Orthopaedic surgery aims at correction of deformities.

The Research Unit at Tirumani was very early in the field of sulphone therapy, with the new emphasis of reducing the cost of treatment by injecting the drug instead of oral tablet administration. It may be said that all sulphone products Promine, Diasone, Sulphetrone or the parent Diamino-diphenylsulphone (DDS for short) are effective in the serious lepromatous (nodular) leprosy. DDS is probably the most effective, but until the Research Department is certain that the drug is safe, non-toxic, easy to administer and reasonably cheap on cost, it cannot be recommended for mass treatment. Again, import controls are present-day factors to be taken into consideration if increasing quantities of these drugs have to be obtained from abroad.

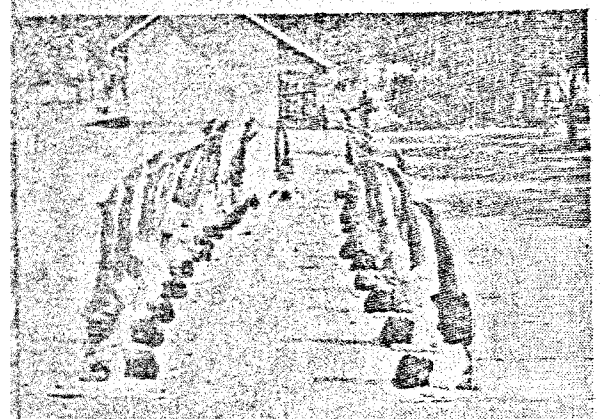
The Research Department uses Tirumani and associated clinics for experimental trials into various claims of leprosy treatment courses, including indigenous methods. Drugs used in tuberculosis as Streptomycin and Para-amino-Salicylic acid are also tested, as T.B. and leprosy have common characteristic features. The British Empire Leprosy Association have loaned the services of an expert bio-chemist to Madras and his work will greatly help the Research Department.

Some figures

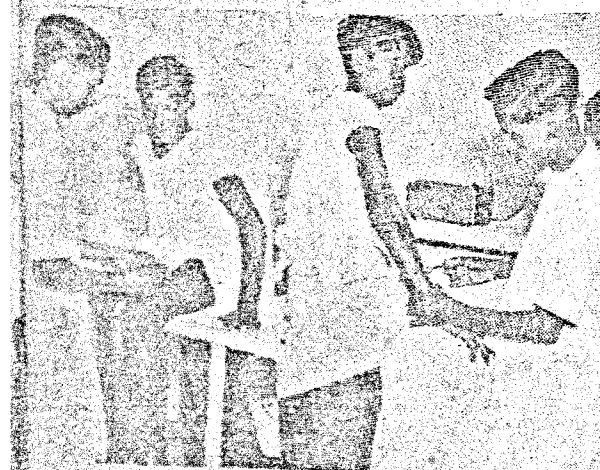
Total number of cases in India	1,000,000
Infective	200,000
Non-infective	800,000
Total number of cases in Madras State	250,000
Infective	20,000
Non-infective	230,000



A brisk game of badminton

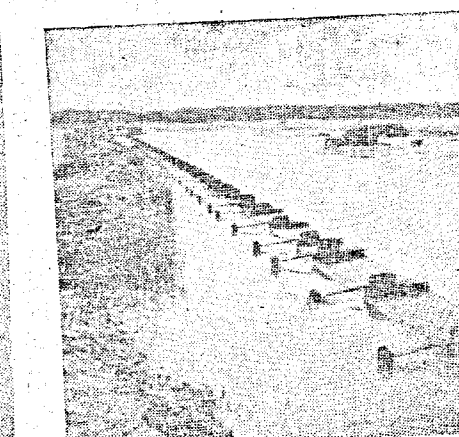
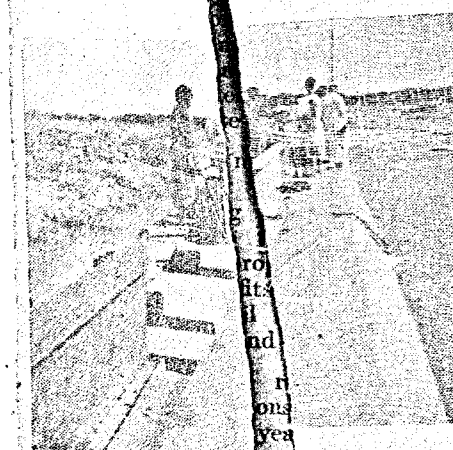
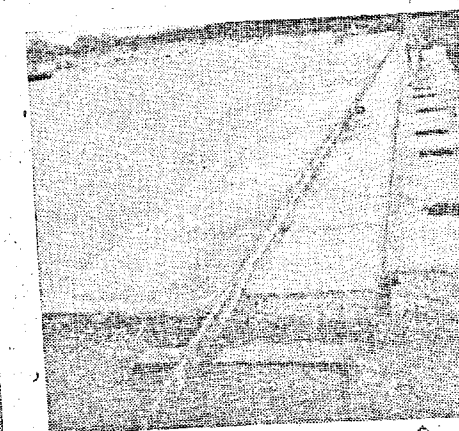
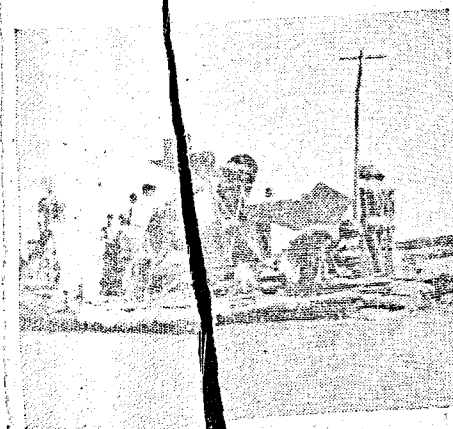


The boys enjoy Yoga Asana classes



Injections are given by the patients

PROVIDING FALLING SHUTTERS TO KATTALAI BED REGULATOR



(Top) Left.—View from right flank rear. Right.—Close-up of sluices.
 (Centre) Left.—Concrete cement being mixed. Centre.—Preparing the crest to receive concrete. Right.—Concrete laid on one angle in position. Note holes on right for anchors.
 (Bottom) Left.—Falling shutters are fitted up. Centre.—The erect shutters are painted. Right.—The shutters set down.

Multi-Purpose Projects

By G. C. MIRCHANDANI

With the dawn of independence in India, two years ago, began a quest for the speediest means of making the country prosperous and of raising the common man's standard.

Reflective eyes turned to the map of India and discovered in her well-dispersed extensive river system an answer to many a problem that had long waited for solution. The success of earlier river projects within the country itself, and experiments in multi-purpose development of river basins elsewhere in the world, held out a rich prospect. The striking progress made through the utilization of their waterways by Canada and Australia, Sweden and Switzerland—to mention only a few names—became to planners in India at once an example and challenge. Here was agency through which the country's large natural resources could be converted, fairly quickly, into electricity for industry and agriculture, food and clothing and a decent standard of living for everybody.

A Gift from Nature

The advantages of this agency over any other were obvious to the naked eye; for India's water resources are her perennial asset—a gift to her from Nature. In a year, according to hydrologists, the flow of water in Indian rivers is as much as 1,300 million acre feet—which is enough to submerge a country of the size of the Netherlands under more than 17½ feet of water. Then, thanks again to Mother Nature, almost every major State has a sizeable river passing through it. If these rivers could be "controlled," not only would periodic floods which devastate the countryside and destroy sorely-needed crops be eliminated but many direct benefits would also be secured. Vast new storehouses of hydro-electric power would be created; perennial irrigation would be provided to millions of additional acres of land; inland navigation channels would begin to play their true part in the country's transport system, relieving and supplementing the over-worked railways; and other benefits like fish culture, soil conservation, afforestation, recreation facilities and provision of drinking water would follow.

The TVA experiment in the U.S.A. inspired high hope and offered a model. The first fruit of this new enthusiasm for development was the multi-purpose Damodar Valley Project. A Corporation was created, closely modelled on the Tennessee Valley Authority in the U.S.A., to control the floods on the Damodar, West Bengal's "river of sorrows," and at the same time to develop areas in the Damodar basin. Soon the idea of river valley development caught on with the people of India.

160 River Projects

Today, the country has already 160 river valley projects under planning, investigation or execution, and more are under consideration. If all these 160 projects were to be completed simultaneously, the aggregate "bill" would be in the neighbourhood of 12,800 million rupees—about four times the Government of India's gross revenues

for 1949-50. Of this, nearly 2,800 million rupees would be needed in foreign money. The quantities of steel, cement and oil required for construction would be phenomenal. Additional food production from these projects would exceed ten million tons per annum, and the installed capacity of new hydro-electric plants would be about ten million kilowatts.

Progress, however, must necessarily be conditioned by availabilities of funds, construction materials and technical personnel. None of these is in plentiful supply. Clearly, a large majority of these projects cannot be taken up for construction now.

Why, then, was planning permitted to proceed on such a generous scale, unrelated to known resources? Part of the answer will be found in the genuine anxiety felt by the various State Governments to push ahead with development schemes that will help to ameliorate the lot of the masses placed in their charge. Partly, this glut of projects is attributable to certain constitutional handicaps under which the Centre functions, in so far as the utilization of waterways was made a purely provincial subject under the Government of India Act, 1935. This left each administrative unit practically free to do what it pleased with the waters that flow through its territory. The inevitable result has been unco-ordinated planning, deadlocks between neighbouring Governments over the use of common river waters and consequently slow progress.

National Waterways Development Agency

In 1945, the Government of India created the Central Waterpower, Irrigation and Navigation Commission, which gradually became the chief national agency for co-ordinating development of waterways. Through persuasion and friendly mediation CWNIC has succeeded in untangling many knots, and secured encouraging progress in the brief space of time it has been in existence. In all likelihood, some system of priorities will have to be evolved to determine which projects are immediately necessary, and which can be held over or their execution spread over long periods.

As far as the Centre's constitutional handicaps are concerned, necessary provisions have been made to invest the Union Government with certain powers of effective co-ordination under the new Constitution which is now in force. Action taken by India in this direction would be in the line with the experience of the Federal Government of the United States and Australia and with international practice generally. The most striking illustration of the successful working of the now well-recognized principle that every river system is an indivisible unit which should be so developed as to render the greatest possible service to the whole human community which it serves, whether or not that community is divided into two or more political jurisdictions, is provided by TVA which was concerned with the development of the Tennessee Valley basin spread over more than one State.

STEPPING UPWARDS

I am but a poor struggling soul yearning to be wholly good, wholly truthful and wholly non-violent in thought, word and deed, but ever failing to reach the ideal which I know to be true. It is a painful climb, but the pain of it is a positive pleasure to me. Each step upwards make me feel stronger and fit for the next.

—MAHATMAJI

Seven-year Programme

Out of the 160 projects referred to above, 46 are actually in various stages of construction. Preliminary work on some of these had begun even before partition. The remaining 114 include a few which are ready for construction, but on quite a number of them investigation is still in progress or is about to commence. These 46 projects will go ahead in any case. As, however, food is India's paramount need today, it is possible that minor adjustments will be found necessary. For instance, certain works yielding foodgrains quickly may be given a higher priority at the cost of certain others, the execution of which may be spread over a comparatively longer period.

What will these 46 projects achieve and how soon? Present calculations show that while the smaller ones may be completed in two to three years, some of the bigger projects may take seven years or a little more. According to the data supplied by Chief Engineers of the Provinces and States concerned, food production from some of the 46 river valley projects will start coming in as early as 1950-51. From about 173,000 tons expected during this year, the additional food yield is likely to rise almost eight-fold to about 1.38 million tons by 1955-56. On completion these projects will enrich India's granaries by an aggregate of some three million tons per annum.

Nearly 1.85 million installed kilowatts of new hydro-electric energy would become available on completion, nearly doubling the present installed capacity of hydro-electric plants throughout the Indian Union. Some of the larger projects, mentioned below, will also yield subsidiary benefits like development of inland waterways, fish culture, soil conservation, afforestation, supply of drinking water and provision of irrigation facilities.

The estimated requirements of steel and cement are about 100,000 tons and 600,000 tons respectively per annum for seven years.

Cost of Projects

The total expenditure is estimated to be in the neighbourhood of Rs. 3,700 million, to be spent over a period of seven years or only about Rs. 530 million per year. The 46 projects mentioned above include 33 which will cost Rs. 50 million or less. Another four will cost between Rs. 50 million and Rs. 100 million. The remaining nine are expected to cost anything between Rs. 100 million and Rs. 1,000 million each. Among these are: the

Damodar Project in West Bengal and Bihar; the Hirakund Project in Orissa; the Rihand Project in the Uttar Pradesh; the Bhakra and Nangal Projects in the Punjab; and the Tungabhadra Project in Madras and Hyderabad. West Bengal also has the Mor Project costing over Rs. 100 million under construction. These cover some of the potentially richest parts in the east, west, north and south of the Indian Union.

Amongst the larger multi-purpose projects which are either ready for execution or under investigation, mention may be made of the Kosi Project in Bihar and Nepal, the Narbada and Tapti Projects in Bombay and the Madhya Pradesh; and the Krishna-Pennar and the Ramapadasagar Projects in Madras. The last mentioned is a particularly ambitious scheme estimated to cost Rs. 1,200 million and will take 19 years to complete.

To Spend or not to Spend

What this additional production of food and electricity will mean to the country's food economy and its programme for industrialization can easily be imagined. During 1948-49, the Government of India had to spend 1,200 million rupees to import 2.8 million tons of foodgrains from overseas. According to present indications, the expenditure on imported foodgrains during 1949-50 may go up to 1,500 million rupees and the quantity imported may be as much as four million tons.

A question that may well be asked is: Is India, with an accumulation of so many difficult problems to solve, in a position to spend Rs. 3,700 million on these 46 projects, and perhaps further amounts if more projects, which are ready for execution, are taken in hand? A realistic answer to this question can be provided by a counter-question: Is the country in a position to go on spending Rs. 1,500 million or so per year on imported foodgrains, specially when substantial portions of this money have to be found in precious dollars?

There appears to be no alternative to multi-purpose development on a large scale, if production of food is to overtake the growth of population, and if cheap power is to be made available for agriculture and industry. This conclusion becomes irresistible when it is remembered that the river valley projects will not only give the country the two aforementioned vital necessities, but also a number of other important advantages which will help India to be strong and prosperous.

—March of India.

Artesian Springs Bored

In a 6" boring put down in Kavanur village, South Arcot, to a depth of 327 feet good artesian springs were tapped as a result of which the water level rose up to 7'-4½" above ground level. Water overflows at the rate of 22,500 gallons per hour. The approximate cost of the boring is Rs. 5,000, and an extent of about 50 acres of land will be benefited.

Sher-i-Kashmir Sheikh Abdullah

Sheikh Mohamed Abdullah, popularly known as 'Sher-i-Kashmir', is one of the most idolized leaders among the Kashmiris and the father of the movement which has brought about the revolution in Kashmir. Born in 1905 in Saura, a village seven miles from Srinagar, he came of a poor middle-class family. His father was an ordinary small merchant. He was sent to a school in Srinagar where he matriculated. He graduated from the Aligarh Muslim University, and then joined the Aligarh Muslim University where he took his Master's degree in Science.

During his stay in Aligarh, he took a keen interest in the students' debating union and in socio-political study groups. In 1927 while yet a student, he formed the Union of Kashmiri Coolies in Lahore.

For some time he taught science in a High School in Kashmir. During this period he formed a small group which was destined to become the nucleus of a movement for the regeneration of Kashmiris. Sheikh Abdullah and this group published a number of posters protesting against the undemocratic regime. He commenced addressing meetings and organizing the masses. In 1931 he, together with some of his colleagues, was arrested and imprisoned. On his release, he continued the struggle and organized the Kashmiri Muslim Conference. In 1938 he converted the Muslim Conference into a National Conference making it a common platform for all Kashmiris to voice their grievances. He was arrested and sentenced to imprisonment but was released in 1939.

In 1947 the decision of the British to "divide and quit India" brought the problem of the Indian States to the forefront. Sheikh Abdullah wanted the question of accession of Kashmir to be solved by the Kashmiris after freedom. But in the meanwhile hordes of tribesmen invaded

"Thousands of Tribal raiders armed with modern weapons were sent to burn, loot and conquer Kashmir. But the people of Kashmir have halted them and are fighting them out of the country."

"Pakistan considers me its enemy No. 1, because I am prepared to sacrifice my life for service to all, irrespective of caste, creed and colour."

—SHEIKH ABDULLAH

Kashmir. Notwithstanding the impact, the old Government machinery was forced to make way for a new popular administration under the leadership of Sheikh Mohamed Abdullah. In October 1947 he was appointed Head of the Administration. In March 1948 an Interim Government was set up with Sheikh Abdullah as the Premier. He was one of the members of the Indian Delegation to the Security Council in New York to present the Kashmir case (January 1948).

Sheikh Abdullah is opposed to 'purdah' and the segregation of women. He has introduced many social reforms among his people. He has wandered all over Kashmir visiting the remotest regions and thus established personal contact with his people. His wife Begum Abdullah used to carry on his political work when he was in prison. She is to-day one of the pioneers in the spread of education among the masses. Sheikh Abdullah was a member of Indian Constituent Assembly representing Kashmir since 1949.

INDIA AND KASHMIR

"In Kashmir we had for years built up a joint front against the vicious two-nation theory and when we were attacked by Pakistan, unarmed as we were, what sustained us to meet this attack was Hindu-Muslim-Sikh Itehad."

"Fortunately, India came to our aid just when the enemy was battering at the gates of Srinagar. You were the first to come here. It is no small achievement to your credit that having gone through the agony and tragedy through which your province had passed, you were not carried away by wild passion. Here the healthy atmosphere of communal unity healed your wounds and you conducted yourselves in a manner that endeared you to the hearts of everyone. You became the friends of the people as well as their defenders. Stories of your cordial fraternization with the civil population spread to the remote corners of the State."

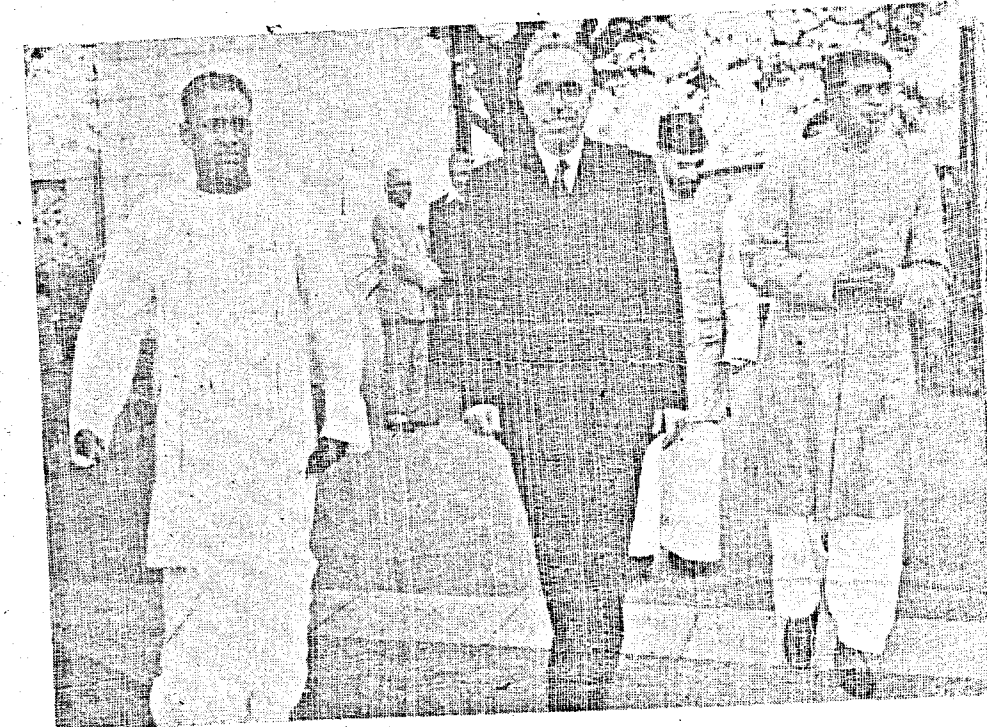
—SHEIKH ABDULLAH



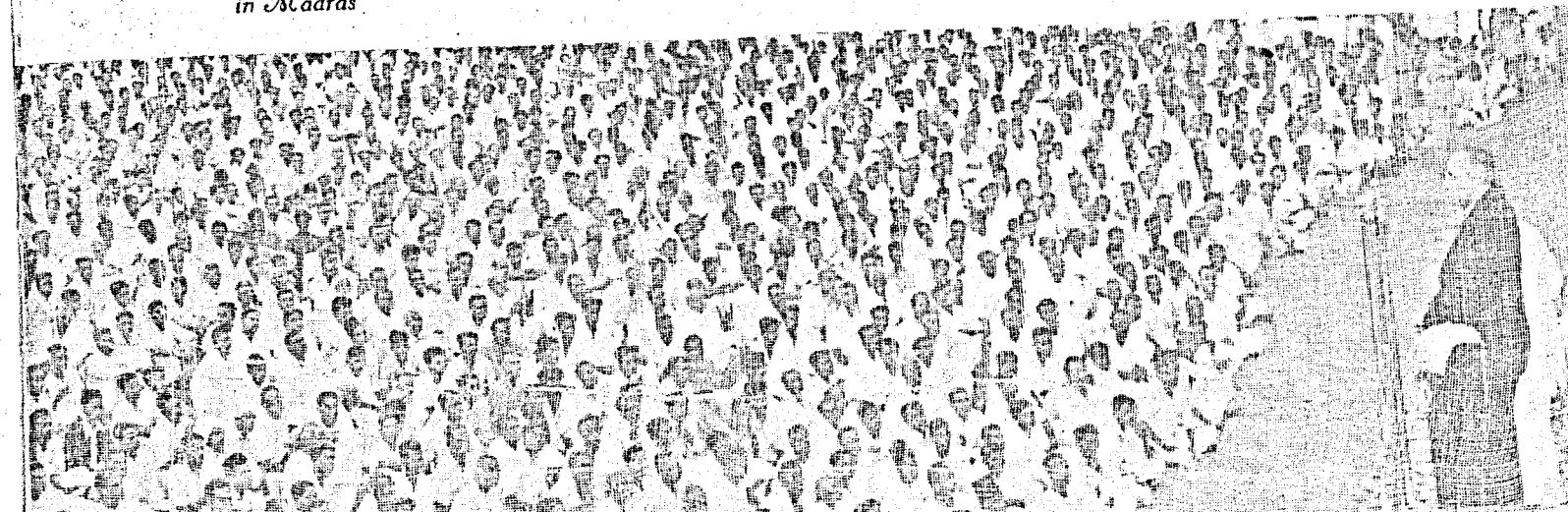
SHER-KASHMIR IN
MADRAS

Sheikh Abdullah, Chief Minister
of Kashmir, arriving at the
Meerambakkam Airport

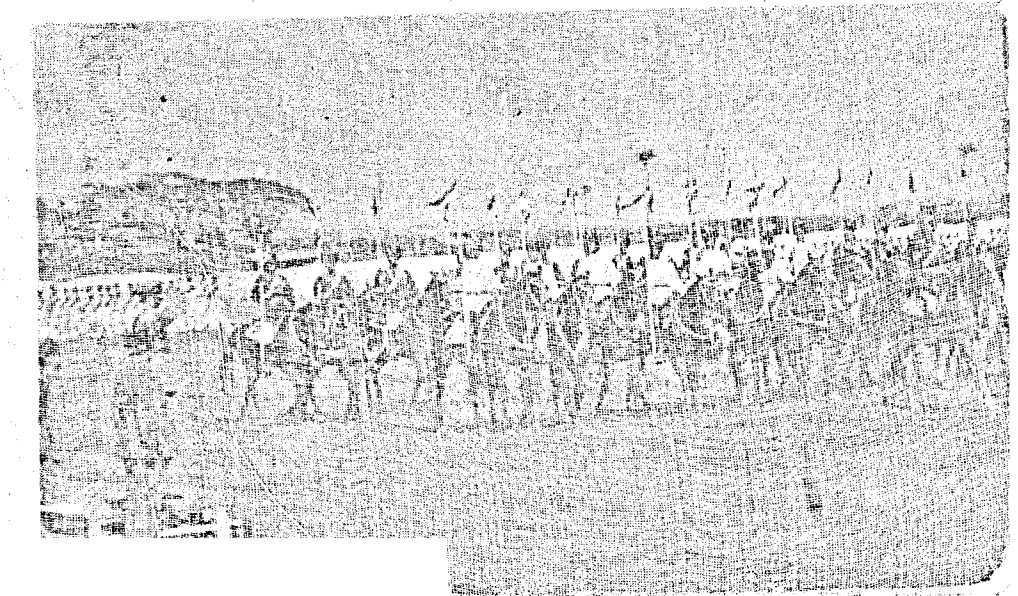
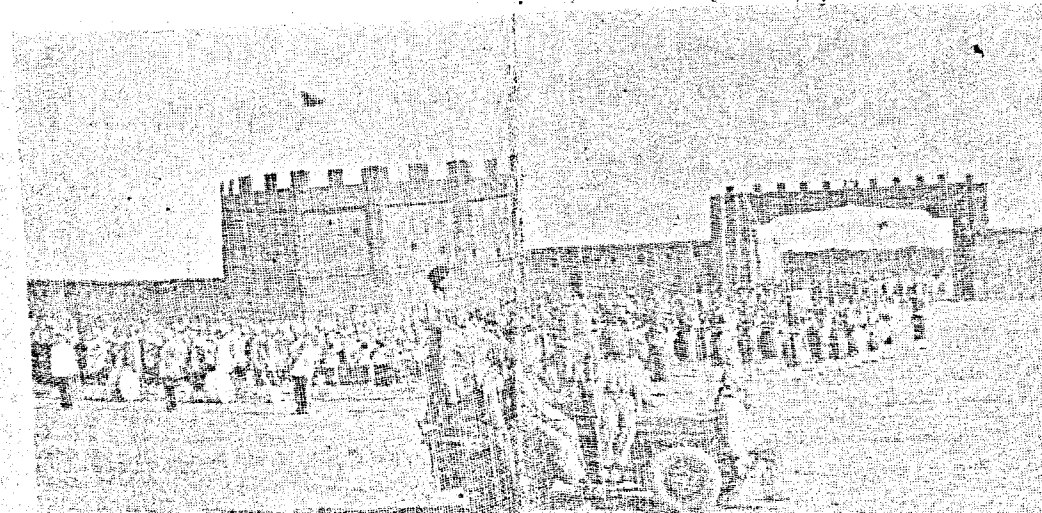
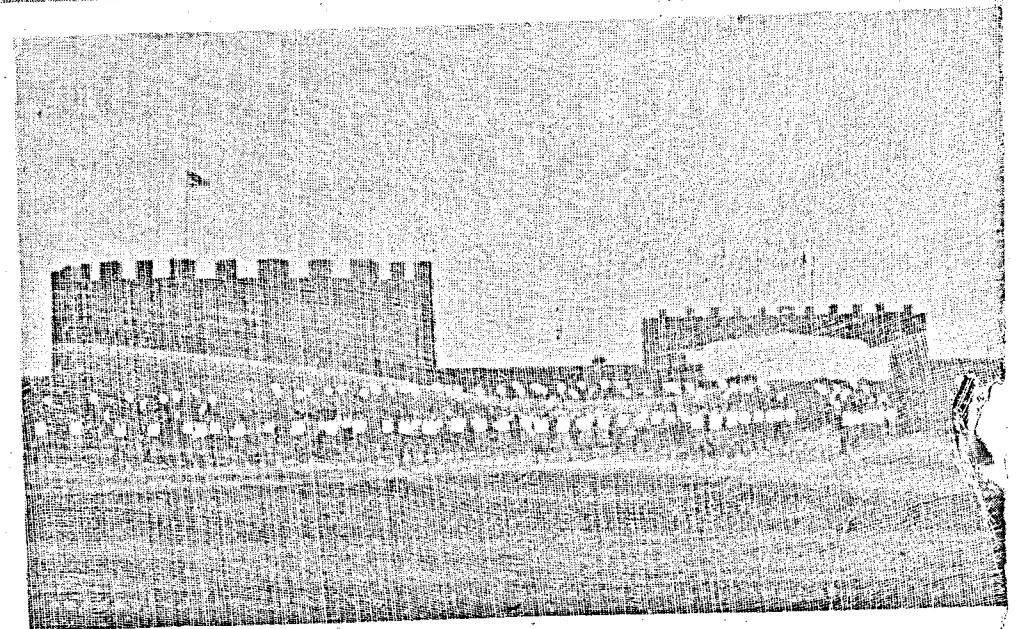
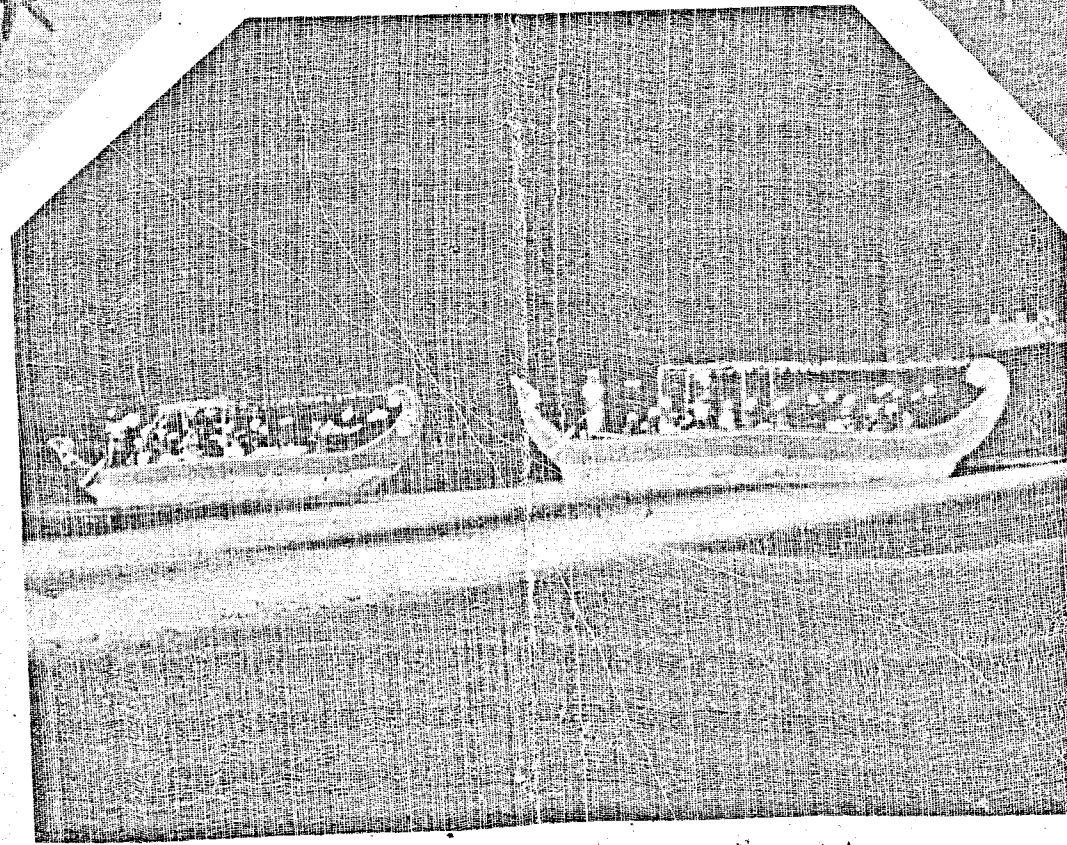
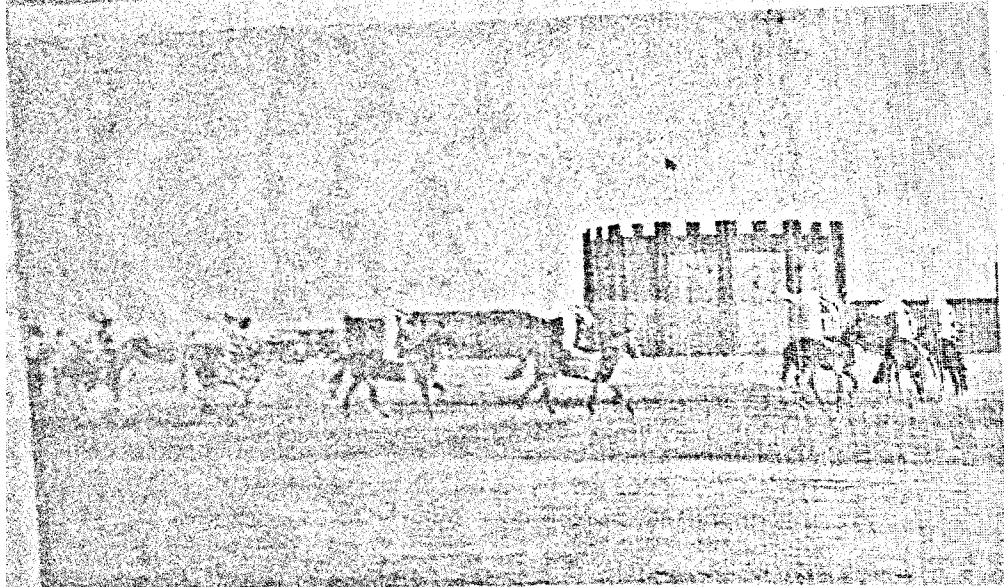
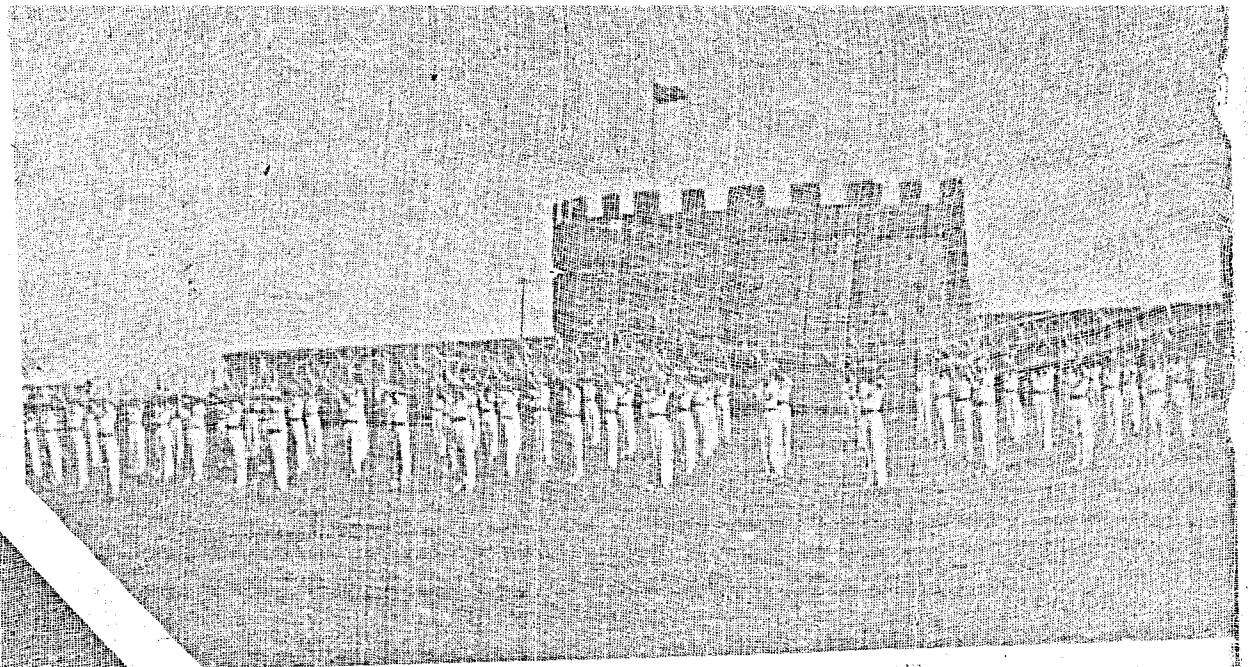
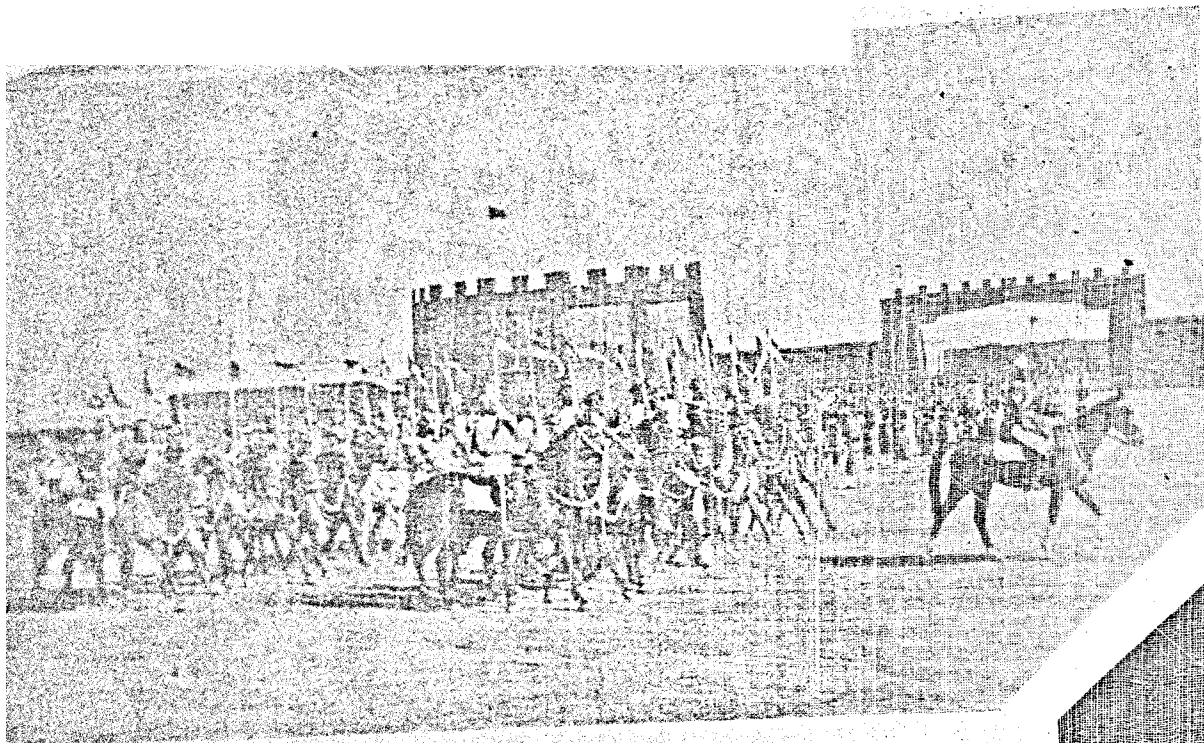
The Sher-i-Kashmir with Sri
P. S. Kumaraswamy Raja,
Chief Minister of Madras, and
Sri B. Gopala Reddi,
Finance Minister



Sheikh Abdullah addressing a mass meeting
in Madras



MILITARY TATTOO AT THE ISLAND
GROUNDS, MADRAS



VOL IV NO 3
MARCH 1959

Flarepath To Democracy

If democracy is a Government by the people, it is of its essence that every adult should, irrespective of caste, creed or means, enjoy equal political rights in the Government of the country. Universal adult franchise has thus been conceded under the new constitution, and quite rightly, as without it there cannot be even the form of democracy.

The new constitution has given us the form and body of democracy but it is for the people to furnish its substance and soul. Democracy depends for its very life on a high standard of education. An uneducated and illiterate people is a grave danger to any democracy and it is much more so to us, beset as we are with so many difficulties, internal and external. If the people are not to be exploited in the exercise of their vote by unscrupulous individuals or groups, it is the duty of all of us to co-operate in this great movement which seeks to educate the adult. Besides, without an educated people there can be little progress in any sphere of corporate activity.

Aims of the Movement

What is sought to be achieved by this movement? The education of the adult does not, of course, mean that it is confined to the imparting of mere literacy. Literacy, that is, the ability to read and write, is not in itself an end; but it is by far the most important means through which education can be imparted. Talks, film-shows, exhibitions, etc., play quite an important part in the education of the adult by themselves, but these methods have only a limited value and even permanence. However stimulating or entertaining a talk or a show can be, there is this defect that the "adult recipient" has no control over the time or place or even over the pace of the absorption of the matter. Whatever is devised for mass appeal inevitably suffers from these limitations.

On the other hand, reading has none of these handicaps. An adult can read a book where he likes, when he likes and as fast as he likes and as many as he cares to. He can pick and choose the material that interests him. It is only through reading that any new interest which has been aroused in the adult through other means can become a permanent interest. For these reasons, literacy is the most enduring means for education and should, therefore, receive our primary attention.

The scheme of Adult Education approved by Government has a twofold purpose; to make as many adults as possible literate in as short a time as possible while at the same time widening their knowledge and interests so as to make this a permanent acquisition and to give a further education to those who are literate but whose education was very elementary and therefore incomplete. As the main objective is to make these adults useful and responsible citizens of this country, to make them better members of the society, it is better to call it Social Education. The task is so vast that Government alone cannot tackle it, as finance is not half so important as the need for workers. Its successful accomplishment is thus possible only if every educated man and woman co-operates.

Social Education Scheme

The Government of Madras have put through a scheme of Social Education which mainly provides:

firstly, for Adult Literacy Schools for spreading Social Education among adults;

secondly, for training of the staff for this Social Education work;

thirdly, for Rural Colleges in which higher education to adults who have already had some kind of education is provided in order to solve the problem of rural leadership; and

fourthly, for audio-visual education, i.e., for education through sound and silent films which have been specially selected for their adult appeal.

The present adult literacy schools are different from the old night schools. They are to-day designed to be community centres rather than schools, to provide not only enlightenment but recreation to adults and to become the focal points of all social and reconstructive activities in the area. Normally they should work as community centres striving to build on interests already present, before spending time in creating new interests. All useful knowledge necessary for a proper understanding of current events has been included in the syllabus. Talks on current events, civics, hygiene, agriculture, co-operation—in fact on all matters which are of interest to the adult—have been included.

National Service

Four hundred and fifty such centres are already spread over the four linguistic areas of the State and 500 more are being attached to professional and arts colleges and secondary schools, training schools and higher elementary schools. Through these institutions students should find plenty of opportunities to do this great national service. It is hoped to run short training courses for student volunteers in which they can learn something of the technique that is required for teaching adults.

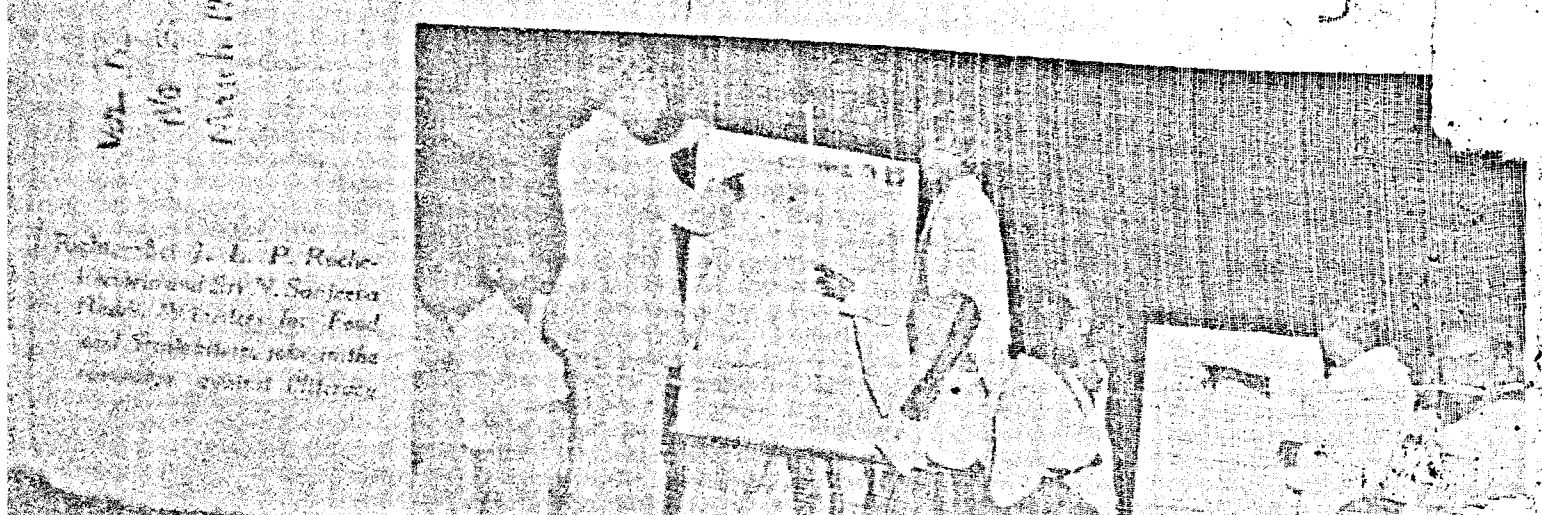
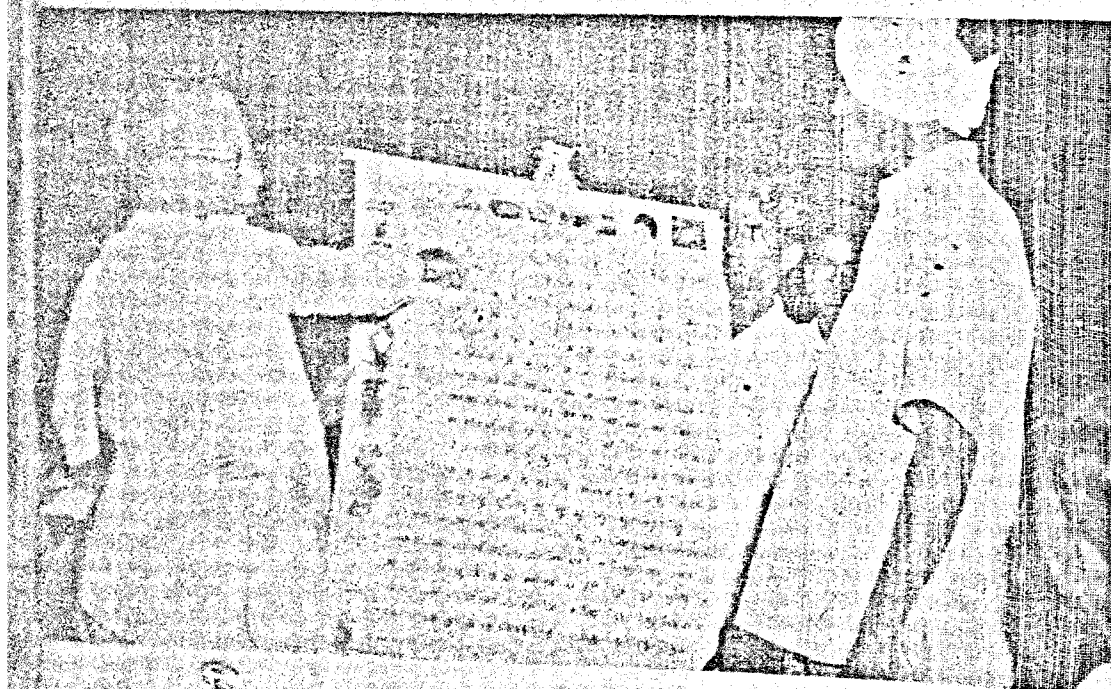
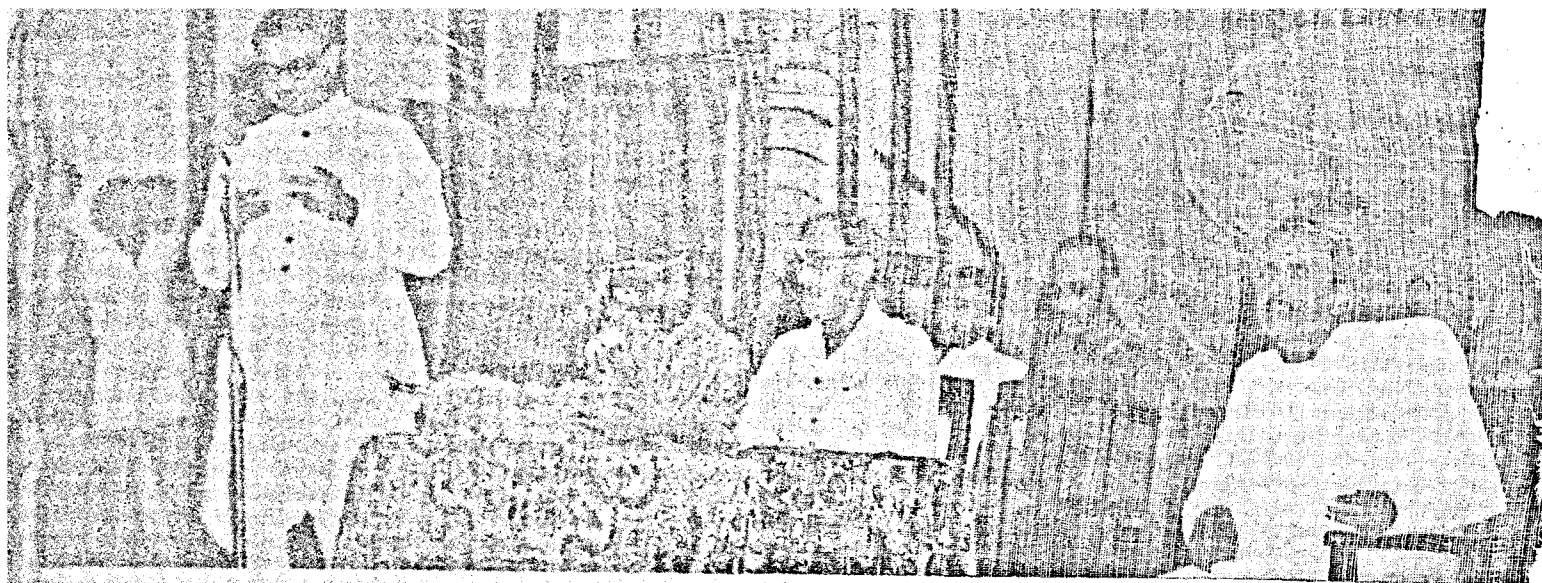
More Social Education Centres will be opened soon and all educated citizens can easily find a centre close at hand for voluntary national service. If you are a student and can find no opportunity to do this work while at college or school, you can at least do this when you go to your village in the vacation. If you are not a student you can help in the school in the village or town where you are resident. Whatever leisure you enjoy can help to make another literate. If each literate teaches another and starts thereby Each-One-Teach-One chains, illiteracy can be liquidated in a few years. It is the beginning alone that is difficult; but when once this is accomplished the movement will gather such momentum in ever-widening scope that success is assured.

Teachers working in all grades of educational institutions can do part-time work in their schools and obtain a small grant of Rs. 8 in addition to a contingent allowance of Rs. 4 per mensem together with a bonus of a rupee for each adult who is made literate.

ADULT EDUCATION WEEK

Top.—H.E. the Governor of Madras inaugurates the Adult Education Week

Left.—Sri M. Bakthavatsalam, Minister for Public Works, teaches an illiterate the alphabet



Training Centres for Staff

It would, however, be helpful to efficiency if such voluntary effort is made under the guidance of one trained in adult education methods. The staff for these centres is being trained in Government Training Schools for Adult School teachers; private agencies will also be encouraged to open similar training centres. Workers are trained at these centres for six weeks in the latest techniques of teaching adults and in employing life-centred methods of imparting knowledge to adults suited to their actual circumstances. They are taught how to make lessons interesting, easy and rapid, and to deal with adults in the way adults like to be dealt with. They are trained in quick-literacy methods by which adults can pick up reading ordinarily in 40 to 60 days. The training centres are often adult literacy settlements making an entire area literate through successive batches of trainees.

Higher education to those who are already literate in rural areas is provided for in Rural Colleges. The Rural College gives evening courses on such topics as Language and Literature, History and Culture, Economics and Political Science. Adults may attend lectures on one or more of these subjects. The fee charged is nominal and Government examinations would be held at the end of the course and certificates awarded. The essential feature of the scheme is to train leaders who can help to create an informed and enlightened public opinion in the rural areas. Such Rural Colleges are now working at Perampalli, Arcot, Badagara and Perianaickenpalayam. Three for women will be opened shortly. In regard to audio-visual education, five film vans will shortly be put into the field.

Provision of Suitable Books

The provision of books and reading matter is badly needed to prevent relapses to illiteracy and to sustain the interest in the printed word that has been created. The available books gathered through book-dumps have to be sorted and distributed to suit the individual capacities for reading and comprehension. But there are vast numbers of adults who had spent only two or three years in an elementary school and who cannot obviously read most of the existing books. Books have, therefore, to be written for their special benefit—books in which the reader has a mature appeal but written in a language that is simple and easy.

BREACH OF PROMISE

A breach of promise shakes me to my root, especially when I am in any way connected with the author of the breach. And if it costs my life, which after all at the age of seventy has no business value, I should most willingly give it in order to secure the performance of a sacred and solemn promise.

—MAHATMAJI



Sri M. Bakthavatsalam, Minister for Public Works, addresses an Adult Education Week Meeting

Books should be short and in bold types. Simple words should be used in short sentences. Frequency of different words exceeding one in twenty would render reading painful. Helpful diagrams are necessary. Humorous expressions would add to their readability and a background of folklore to popularity. Besides, there is today a great need for pleasant factual booklets giving accurate information on a wide range of topics.

It is a common mistake to imagine that because an adult is illiterate he has not the understanding to grasp the significance of current questions of political or social interest. He is perhaps richer in experience and wisdom. His understanding should never be belittled by trying to interest him in juvenile story books. The cause of adult education has suffered in the past on this account. A large number of such easy reading books are wanted. Mexico, in her historic drive against illiteracy, employed ten million such books.

Role of Librarian

The library is a necessary adjunct to any programme of adult education. But it should cease to be a mere collection of books, much less should it be a mere agency to distribute books. The usual demand for and the supply of "some good books to read" in villages is not the way to work a library. The librarian ought not to be a mere book-keeper. The money spent on sending round ill-assorted book-boxes is wasteful. "The right book with the right reader" should be the aim of the village librarian. To this end he should study the needs and interests of the community he serves. He should get to know as many of the readers and the books as possible and introduce the reader to the books that interest him.

The village librarian should strive to be a clearing-house of information on how to get further information on particular subjects and possibly arrange for it. He may be assisted in this important task by competent local honorary librarians. The village librarian can also inspire local literates to help illiterates to read.

Cost of Administration

K: All modern States have to defray out of their revenues the expenses incurred for providing the citizens with good life, a proper environment and conditions of security so that life in common may be enriched and the development of the human personality may be furthered. Is it not so, Mr. Chidambaram Chettiar?

C: This should be possible only to the extent of available resources and Government, like business enterprises, should understand the value of economy. In business firms the industrialists or the managers scrutinize overhead costs and prime costs with great care.

K: The distinction that you have suggested has great economic significance and I would like to deal with it at length by reviewing certain features of the administration as they have developed during the past three or four decades. The philosophy of Government has changed since the early years of the century when it was considered wrong on the part of the State to concern itself with increasing the welfare of the individual only. I believed then that the individual could take care of himself and private initiative and private philanthropy could attend to the needs of the backward and the needy amongst us and that the State should play the role of an empire. In other words the State was a Police State. All who were employed were employed for discharging the elementary function of the preservation of law and order. This must be considered to be the overhead expenses which the State had to incur in order that the community may exist.

C: My own feeling is that the activities of the Government whether then or now leave little else than overhead expenses, there being nothing comparable to prime costs which we in industries have to incur. In 1938-39 undivided India's civil expenditure was Rs. 39 crores. Today it has shot up to Rs. 165 crores for a smaller area. In the Provinces for the same period civil expenditure has mounted up from Rs. 80 crores in 1938-39 to Rs. 275 crores for 1949-50.

K: Figures are elusive and unless we have criteria to judge what extravagance is and what is appropriate, it will not be possible to arrive at sensible conclusions. I pointed out that overhead expenses in the 19th century were incurred for maintaining law and order. But since then almost all countries have decided to undertake social service functions and naturally the concept of overhead expenses has acquired a new application. Since the termination of the war no economy of the world has as yet adjusted itself to normal conditions: the cost of living has mounted up everywhere; disturbances in different parts of the world and dislocation of trade that have occurred have necessitated the institution of controls. Further, there has been an increase in administration due to political developments within India.

C: Surely when the citizen criticises Governments on the ground that the costs of administration are high, he must be presumed to take into account all these factors and yet express the view that there are more jobs than

Radio discussion broadcast from the A.I.R. Station, Madras, with Dr. A. Krishnaswami, Sri M. Ct. Chidambaram Chettiar and the Hon'ble Sri B. Gopala Reddi participating.

functions of activity socially beneficial to the community and profitable to the individual. Is there any scope for retrenchment, Mr. Gopal Reddi?

G: The scope for retrenchment is to be viewed in relation to the proper functions of the administration as referred to by Dr. Krishnaswami. The general tendency of the Central and Provincial Governments now is more towards the conception of a Welfare State as distinguished from a mere Police State. Making allowances for the very large number of additional activities by Government which this conception involves, my own view is that scope for retrenchment is very limited. You are no doubt, aware that the Madras Government some time ago constituted a Retrenchment and Reorganization Committee and everyone of the recommendations has been very carefully examined by the Government and retrenchment effected wherever possible. The saving thereby effected is of the order of Rs. 50 lakhs per annum. There are also other factors, such as the present law and order situation of the country, the necessity of achieving self-sufficiency in food, etc., which make any appreciable reduction in the expenditure in the near future very difficult.

K: What are the criteria that should be adopted for determining the efficiency of expenditure by Government? We know that individual enterprise operates on certain principles. Perhaps Mr. Chettiar will elucidate.

C: In a private enterprise the criterion I would follow is that of maximum profit to the enterprise. The scales of pay, and the tenure of the employment of the individual are dependant on the efficiency that he displays and the general prosperity of the industry. In periods of rising activity extension is undertaken, and new personnel is recruited. But if the market declines in activity, we have to revise our commitments and the prime costs are lowered in the first instance; later certain plants are closed down in which case the overhead costs incurred for running these plants and the labour are also retrenched. Governments however do not operate on the criterion of profit. On the other hand, I have a suspicion that "once a Government employee, always a Government employee" seems to be the prevailing tendency.

K: Governments do not necessarily undertake activities to run them inefficiently. From your remarks it appears as though the criterion of profit is the only test of efficiency. There are certain enterprises for which this criterion cannot be adopted. If the State does not lay down good roads, open up outlying areas, or build hospitals and colleges, the environment in which private enterprise functions

FINANCE

24

MADRAS INFORMATION

would be a poor one indeed. If industrialists decide to start enterprises in this environment, they would naturally demand that the State should underwrite the risks of such investments.

C: One considerable item of civil expenditure is on the enforcement of controls of various descriptions. This is obviously unprofitable expenditure; for what social service is performed by the retention of controls which have tended to multiply and perpetuate themselves, I cannot make out. A very responsible committee presided over by one of our leading administrators, Mr. Gorwalla, in its report makes the pregnant observation that the time has arrived when many controls should be dispensed with. The chief obstacle to the dispensing of controls is the fear of retrenching administrative personnel. What have you to say to this, Mr. Gopal Reddi?

G: I think this is an unduly cynical remark, Mr. Chidambaram. Controls have been thrust on the Government as a result of the scarcity situation in the country, particularly in regard to the essential commodities like food and clothing. An experiment of gradual de-control was made towards the end of 1948 and it was found that very little co-operation was received from the business and mercantile interests generally, and there was reason for believing that the scarcity situation was being exported to the detriment of the poorer classes. Government have had therefore hastily to retrace their steps and reintroduce controls. What the future may have in store for us we cannot say, but the Government of India and the other Governments will be very glad to withdraw all controls, if only circumstances made it possible.

A: I agree with Mr. Gopal Reddi that in 1948 controls were removed precipitately; but surely it does not follow that all controls are now being administered, at minimum cost to the exchequer and the society. In Government departments as in industry, we have to envisage the services to be rendered by individuals and the payments that are to be made to them. The exchequer has the primary responsibility to exercise an initiative and the right to scrutinise, supervise and control new commitments. During the war, we dispensed with the old system of scrutiny and red-tape because it was dilatory and speed was essential. This procedure incidentally was recommended by business executives. We have now to evolve a new system of checks and balances which preserves the advantages of the old system and yet makes our administration streamlined. What are your reactions to this proposal, Mr. Gopal Reddi?

G: It does mean that new schemes involving public expenditure should be carefully scrutinized and their value assessed before they are implemented. I may say that today the main function of the Finance Departments of the various Governments at present. And I would say that this scrutiny is being exercised with great care. If, however, you mean that the scales of remuneration for Government servants should bear a direct relation to their efficiency in discharging the duties allotted to them, I should say that though this should be the broad objective, it is very difficult to ensure its observance in practice, especially when the general security of tenure which Government service is supposed to assure. However,

efficiency and ability are the primary factors on which promotions are generally made in Government service.

C: Many progressive Indian States had kept their cost of administration low and had undertaken considerable local development of their resources and industries as in Mysore and Travancore. Full scope for individual initiative and enterprise was ensured and the State also stood to gain from the increase in national income and the enrichment of their revenues thereby. I am glad Dr. Krishnaswami suggests that the operation of controls should be modified, but my opinion is that if the State divests itself of many of its activities, we would be able to prosper both collectively and individually.

K: Since Indian States have been brought into the picture, I must point out that democracy can function efficiently only if an integrated civil service were available. The transition from authoritarian rule to responsible self-government has been smooth and easy where the civil service tradition had been built up. The new Governments do not have to incur additional costs of administration and the aspirations of the common man can be translated into concrete terms by the technicians. Where an integrated civil service had not been available, democracy was not a success and it has been realised that a civil service has to be built up, thus increasing the cost of administration, so that the minimum level of efficiency may be attained. In other words, for an interval, which it is to be hoped will be as short as possible, the civil service has to be built up in many of our States so that democracy under adult franchise dispensation may take over and function properly.

I entirely agree that an efficient and imperial civil service is necessary if democracy is to be a success not merely for a short period but for all time to come.

C: But surely we seem to forget the trees for the wood. Government poaches on many fields of private activity, has nationalised enterprises which have been run efficiently by individuals, introduced various controls which tend to increase the costs of running such enterprises, and at the same time the costs to the community also. We ought, if we do not wish to trend the path to serfdom, to cry halt to nationalisation and allow individual enterprises scope for development. A democracy rarely examines the working of enterprises with that care and attention which business executives do; nor is this all. Modern industry can be operated with efficiency only by a thorough appreciation of factors such as expectations of profitability, the degree of competition that we are likely to face from abroad and flexibility in meeting fluctuating demands.

All production is for consumption and if industrialists do not supply the products which the consumer wants, they vanish from business. But the State by taking up so many enterprises because democracy wants it to take them up, does things badly if at all. Surely, what we witness is payment for no results and a bloated administration which causes head-aches to our finance ministers and intelligent tax-payers. This is the only tangible achievement which stands to the credit of States.

G: It is impossible for any modern Government to divest itself of responsibility for the discharge of social service

FINANCE

25

MADRAS INFORMATION

functions. While admitting the need for free enterprise to thrift and for incentives to capital being offered, no one can deny the valuable services performed by such undertakings as are nationalised in the social interest provided they are operated efficiently and I do not see any reason why they should not be so operated. You suggested that in periods of acute depression, retrenchment of personnel is resorted to by businessmen. This retrenchment tends to worsen the slump and it is admitted that certain basic industries which are capable of generating incomes in periods of depression should either be run by the State or be under its control. This policy makes possible economic resources not being allowed to run waste and private enterprise thriving. Bureaucratisation of enterprises is an evil and to surmount it, other countries like the United Kingdom and the United States of America have constituted semi-autonomous corporations to run enterprises, thus minimising administration costs to the exchequer and promoting sound production.

C: Reluctantly, I concede the necessity for controls. But there is no reason why implementation of controls should not be entrusted to individual agencies responsible to Government. Instead of saddling the Revenue Department with the responsibilities of procuring foodgrains, would it not be better to allow an autonomous corporation to procure foodstuffs and distribute them to the places which the Government desires? The cost of administration would be lowered. Statistics collected by the Government can be checked by the information available with the Corporation. A Rice Board constituted on a provincial scale with district branches operated on the principles of commercial efficiency would do much to avoid duplication of personnel and overhead expenses.

G: Mr. Chettiar, the Revenue Department in Madras is now concerned only with the general supervision and direction of this important work of procurement. The actual procurement is entrusted to private agency, i.e., merchants and co-operative societies. The Government cannot divest themselves of their general responsibility for procurement in view of the serious food situation. Further, I don't think that the procurement will be very effective without the intervention of the Revenue Department. You may also remember that the entrustment of the work of procurement to a single private agency sometime back in Bengal led to a lot of complaints.

C: What I have in mind is not a single individual but a corporation which has its own personnel and is able to procure under Government direction. To pass on to another point, on purely ideological grounds Government have embarked on schemes of reform. From a strictly neutral point of view the taxes which were levied before we embarked on reforms were as regressive if not less than the taxes that we have now, but the costs of collection have increased as compared with the costs incurred then.

K: I agree that the costs of collection and administration have increased as a result of our having changed over to a different pattern of taxation. There are certain taxes which are as regressive if not more regressive than the taxes which we levied in the past. The Salt Tax was easier to collect and we hit upon this device, which in its incidence was very light. But having abolished it, we have a multiplicity of taxes, some of them more regressive.

1944-45 LAKHS	DEPARTMENTS	1949-50 LAKHS
366	EDUCATION	939
250	POLICE	605
153	MEDICAL	254
94	IRRIGATION	682
65	INDUSTRIES	256
49	AGRICULTURE	136
42	PUBLIC WORKS	100
22	CO-OPERATION	61
20	VETERINARY	44
PROGRESS OF EXPENDITURE		

Resettling Ex-Servicemen in Civil Life

The Strathie Co-operative Engineering Workshop, Madras, is a fine example of the working of the co-operative principle in turning swords into plough-shares. The workshop, run by ex-servicemen with subscribed capital and Government aid, manufactures articles for domestic and industrial use, such as household utensils, furniture, machinery, agricultural implements and structural equipment. The ex-service personnel, in addition to their Army technical training, are trained for various trades in artisan courses, and their return to civil life is thus rendered productive and progressive, with security of vocation assured.

Madras State sent more than half a million men to the Defence Services during the war; during their years of service, many of them not only acquired general and specialised technical knowledge, but also habits of discipline, self-reliance and initiative, qualities which would enable them to exercise an immense influence on their fellow citizens in peace. The aim of the Government therefore is to resettle ex-servicemen in civil life, so that they are enabled to work at congenial trades, and thus prove to be a valuable asset to the community.

The Post-war Services Reconstruction Fund was constituted by the Government of India in 1942 for the betterment of the soldiers then serving with the Defence Services. Till the end of demobilisation large sums of money were contributed to this fund by the Government of India. Money from the fund is intended for general schemes designed to benefit ex-soldiers with scholarships, stipends, amenities, and family welfare measures, for group schemes as co-operative workshops, co-operative buildings, co-operative farming, technical training and housing, and towards special individual grants.

In August 1946, the Governor of Madras nominated members to the Post-war Services Reconstruction Fund Committee, constituted to administer the share of Madras State from the Central Fund.

The Strathie Co-operative Engineering Workshop Ltd., is one of the many schemes run with the help of the fund; in respect of co-operative workshop schemes, the Committee is meeting 60 per cent of the capital cost involved in establishing the co-operative workshops for ex-servicemen and also the cost of housing schemes for ex-servicemen workers. The Committee has also agreed to meet the cost of technical staff to be employed in the first year of the reorganisation of the workshops and the cost of giving further training to the ex-servicemen workers for a period of three months.

The Strathie Co-operative Engineering Workshop (named after Sir Norman Strathie, I.C.S., former Adviser to the Government of Madras) started work on June 5, 1946; the workshop, located in a site adjoining the Public Works Department Workshops, Royapuram, Madras, has the twin object of resettling army-trained artisans and technicians in civil life by providing employment and of training persons who wish to become artisans. The Strathie Co-operative Society is one of the ten workshops established so far in pursuance of earlier proposals to start 100 medium-scale industrial co-operative factories



Turning machines in a row

or workshops providing employment for about 25,000 ex-servicemen. The capital cost of establishing these workshop schemes is met by the Committee for the Administration of the Post-War Services Reconstruction Fund and the State Government, in the ratio of three to two.

The Strathie Co-operative Society entertains two classes of members, 'A' and 'B'. The former, who have to take a minimum share of Rs. 50, get dividend and bonus on their investment. The 'B' class members, who buy only one-rupee shares, get a dividend but no bonus. Only ex-servicemen can become 'A' class members; 'B' class membership is open to war workers. There are about 190 'A' class members and 15 'B' class members in the Strathie Co-operative Society, with a total paid up capital of about Rs. 10,000. The workshop carries on its business with a bank overdraft accommodation of Rs. 3,00,000 sanctioned under Government guarantee. The chief characteristic feature of this institution, as well as of other co-operative workshops, is the identity of interests between the employer and the employee, for each ex-serviceman who is a member of the workshop is himself both proprietor and worker.

In the M.B. sheds humming with activity various sections are at work. The main ones are the Sheet Metal Section, Light Metal Casting Section, Woodwork Section and the Smithy Section. Production in all sections is programmed on market requirements and against specific orders placed on the workshop. Mass production technique is applied to get the maximum advantage from men and machines.

In the Structural Shop, iron roof trusses, iron gates, door and window frames and similar units in house construction are manufactured. In the adjacent Tin and Copper Smithy, coal burning and electric boilers are made. Large circular buckets for baling well water and shallow pans for palm gur jaggery manufacture, are made to assist the Grow More Food drive and the Prohibition

FINANCE

G: I do not agree that the changes that have been brought about in the pattern of taxation have necessarily resulted in higher costs of collection in administration. The bulk of the revenue of the Madras State is now derived from the General Sales Tax and the cost of the administrative machinery is only about 2½ per cent of the total receipts. This will stand comparison with the percentage collection charges in the administration of any other scheme of taxation. Certain taxes are essentially more expensive in their incidence than others. Whether the Government's taxation structure is regressive or otherwise as a whole depends to a considerable extent on the field of taxation open to it. Subject to these limitations, it is the endeavour of all State Governments to make their taxes as progressive as possible.

G: Could we not agree that on many of our commitments being revised and social services being decentralized we would get a proper return for the money spent on administration?

G: To what extent decentralisation is possible would depend largely on the particular function which we have under consideration. The Madras Government are trying to give as large powers as possible to local institutions and this is one of the primary objects of the Panchayats Bill which has recently been passed by the Legislative Assembly.

K: In order that a democracy might function efficiently there ought to be a decentralisation of functions and a proper allocation of resources to viable units. There is a danger against which we have to guard. We must not lend support to a fragmentation of units of administration both in the local and the provincial sphere. For there is a minimum skeleton service which we have to maintain and below which we cannot go and which can be operated with efficiency for a larger area.

G: You would be in agreement with me if I recommend the undertaking by the State of a few functions for the present and gradually enlarging the scope of such functions without prejudicing individual freedom and free initiative. This will be possible if we do not attempt to do all things at the same time and if we understand that the first essential of planning is to draw up a list of priorities. Political economy as distinguished from the new fangled word 'Planning' envisages the drawing up of priorities.

K: All planning presupposes a drawing up of priorities and the retention of only such controls as are absolutely in the social interest. Probably one of the dangers that you fear from the continuation of controls may be avoided by adopting an administrative mechanism consisting of the representatives of the exchequer and the development departments to review the working of controls at discreet intervals. Further, an economy which allows scope for the State to run certain enterprises and individual enterprises to flourish cannot work harmoniously unless there is expert talent at the top to review, guide and at the same time benefit by criticisms made by democracy.

G: I entirely agree with you, Dr. Krishnaswami, that there should be the fullest co-operation with persons experienced in business activities and the highest administrative personnel in implementing the Government policies, to secure success in the enterprises and activities which it

is considered in the public interest should be run, by the State. I have no doubt that this is realized by all intelligent sections of the community and we may hopefully look forward to such co-operation not merely in drawing up a list of priorities but also in the implementation of the schemes with vigour and in the best interests of the general public.

H.E. The Governor's Address

(Continued from page 3)

Charitable Endowments Bill, 1949, in February of last year. This Bill will be placed before the Legislature during the current session for its consideration.

(d) The Legislature is likely to be asked to consider during this session a Bill for amending the Madras Co-operative Land Mortgage Banks Act, 1934, so that Land Mortgage banks could be organised in the districts of Malabar and South Kanara as in other districts of the State.

(e) There are other pieces of legislation under contemplation and they will be introduced in due course.

All these activities of my Government and all the items of legislation will duly come under the survey of your Houses. I know the great traditions of this Legislature, and I am confident in the trust that you will examine and decide them with the same of high sense of duty and responsibility as in the past. I pray that you may be guided with faith, courage and wisdom in your counsels.

I thank you once again for your courtesy and your patience.

Relief for Handloom Weavers

The Government understand that an impression has been created in the mind of the public that the scheme sanctioned by the Government for the relief of distress among handloom weavers of this State through the agency of the weavers' co-operative societies, will benefit only the existing members of the co-operative societies and that none of the weavers who are not within the co-operative fold at present will get any benefit from the scheme. The Government wish to make it clear that this is not the correct position. One of the important features of the scheme is that it provides for taking into the co-operative fold as many as possible of the weavers, who are not now members of the co-operative societies but who are willing to become members and work the scheme.

To enable such non-members to enrol themselves as additional members of the existing societies or as members of new co-operative societies to be formed specifically for the purpose of working the scheme, the Government are giving them interest-free advances at the rate of Rs. 25 per head to meet their share capital, this amount being recoverable only in easy monthly instalments spread over a period of twelve months.

Thus the scheme provides relief not only to the existing members of the co-operative societies who have agreed to work the scheme, but also to all other weavers, who are agreeable to work the scheme and for that purpose, are prepared to join any of the existing societies to be formed for the specific purpose of working the scheme.

CO-OPERATION

28

MADRAS INFORMATION

amelioration campaign. The Welding Section, which uses both gas and electricity, works on outside orders and also helps to cut huge metal sheets for the other sections.

The Sheet Metal Section undertakes the manufacture of all kinds of domestic utensils of aluminium, brass and stainless steel including items like food carriers, basins, ladles, milk cans, saucepans, plates, bowls, tumblers, coffee filters and thermos flasks. This section also makes equipment for hospitals and pharmaceutical laboratories such as medicine chests, operation theatre vessels, etc. The section has a Toggle Press, Screw Press and a number of turning and polishing machines to turn out its work. The sheet metal is pressed into shape by dies in the Toggle and Screw Presses, turned and polished on machines fitted with cloth brushes coated with emery powder.

The Toggle Press at Strathie was made from an original design by Sri .G. Krishnamurthy Naidu, in the P.W.D. Workshop. It works with a knuckle action on electric power motive and is a variant of similar Toggle presses imported from abroad. Strathie now manufactures Toggle presses and supplies them to other workshops. Screw presses for bending angles are also made here.

In the Light Metal Section the Pinto Chekku is made, as also agricultural implements like plough-shares, spades, shovels and wheelbarrows. Other pieces of machinery fabricated in Strathie include the hand and machine operated Rama rice huller, hollow cement block machines, spinning and polishing lathes, duplicated mill, presses, disc cutting machines, swaging machines, tile presses, spare parts and small machines to design. The workshop built bodies for 89 chassis required by the Motor Transport Societies for ex-servicemen, and manufactured metal parts of 11,000 vertical charkas required in connection with the Intensive Khadi Development Scheme. It has also made radio chassis required by the Radio and Electricals, Limited, Madras, a concern in which the Madras Government have invested a large sum towards a good portion of the subscribed share capital.

The Carpentry Section undertakes all kinds of wood work; furniture for home, office and institutions are made here, and the finished goods invite comparison with the best in the market. Modern designs, excellent upholstery and neat workmanship mark the finished products, which include drawing room sets, chairs and tables, cupboards, teapots, dirty linen boxes, umbrella stands, etc.

The Workshop has a strength of about two hundred members, of whom about 125 are workmen and the rest trainees. Under the Government of India Technical Training Scheme, a training centre was attached to the Strathie Workshop on October 1, 1946. The scheme provides for the paying of a stipend to the coop for all trainees—Rs. 7 per trainee per month in the case of all trades except welding, and in the latter case Rs. 25. The training period lasts for a year, and the trades include General Mechanics, Turner, Blacksmith, Mechanist, Cabinet-maker, Welder, Tin and Coppersmith and Moulder. At the end of the training period, a trade test is held and the successful trainees are absorbed in the workshop as workmen on daily wages. During the year 1948-49 the workshop produced Rs. 1,21,826 worth of articles. The sale of finished articles and the value of



Finished products are polished here on rotating cloth coated with emery powder



Milk-cans and tiffin-carriers under manufacture. Note electric water boiler at left



Sheet metal is pressed, turned and polished in the Workshop

CO-OPERATION

29

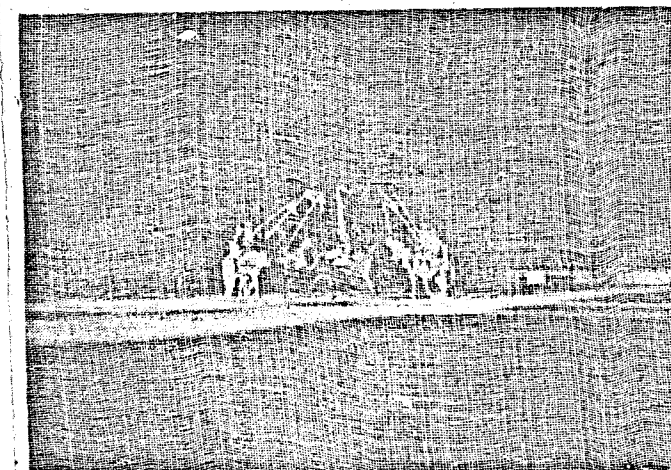
MADRAS INFORMATION

work executed during the year amounted to Rs. 1,17,007. To popularise the products of this Workshop and to sell goods to the public directly at moderate rates, a show room cum sales emporium has been opened in Pandy Bazaar, Thyagarayanagar, Madras City. The opening of similar showrooms in other localities is contemplated.

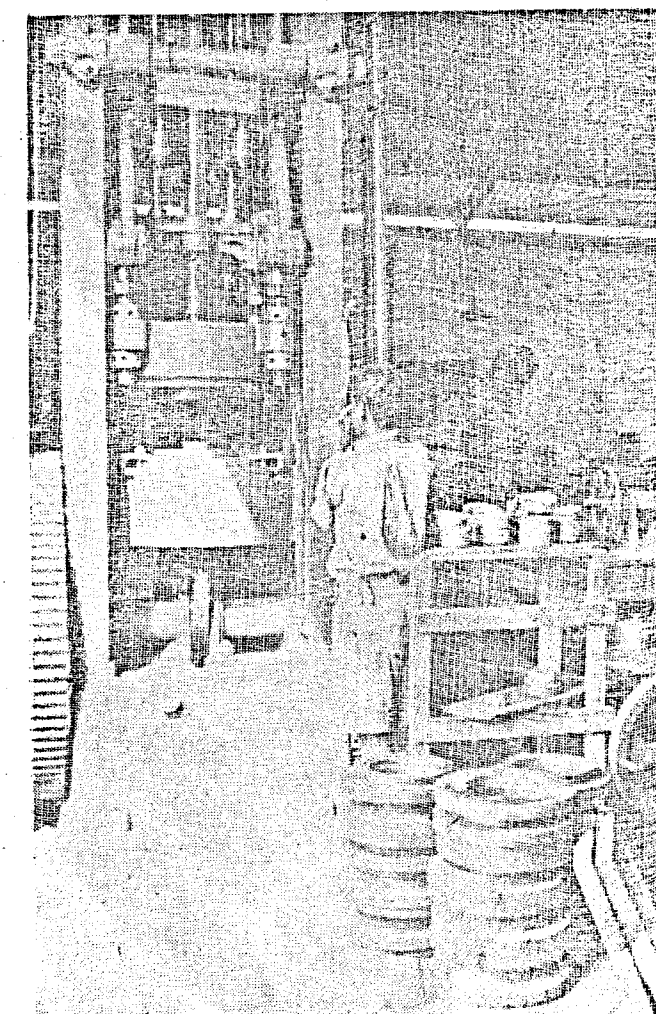
The Madras Government contributed Rs. 50,000 from the Post-War Services Reconstruction Fund towards the capital cost of the workshop. Besides this, the Government are also meeting the cost of the supervisory staff. The affairs of the Workshop are managed by a Board of Directors consisting of five members, four nominated by the Registrar of Co-operative Societies and one elected by the General Body.

Sri K. Chandramouli, Minister for Local Administration and Co-operation, has said: "Co-operation is the best panacea for solving not only the unemployment but most of the social ills." The Strathie Engineering Workshop which works with this aim is believed to be the only one of its kind in the whole of India on a co-operative basis.

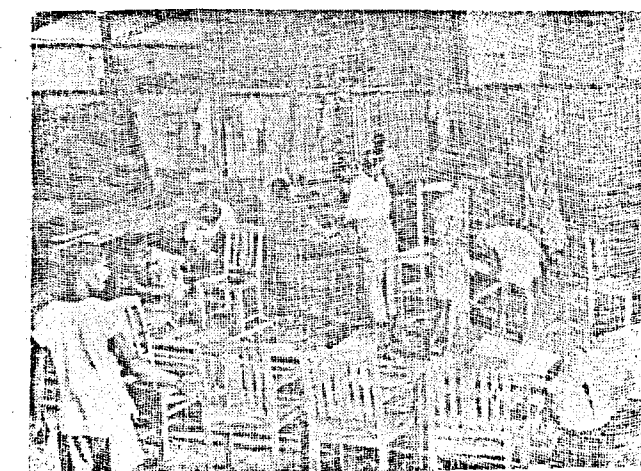
MILITARY TATTOO



The above photo, our cover page and the inset art plates (centre) in this issue feature scenes from the Military Tattoo and Carnival held recently at the Island Grounds, Madras City. The spectacular scenes staged by the members of the Armed Forces not only thrilled and delighted the public of Madras, but also profited them considerably. For, the proceeds of the entertainment went to the Madras State Welfare Fund—an organisation which handles charitable donations to the best advantage and well-being of the People.



Toggle Press for pressing sheets into utensils



Carpentry Section makes furniture for household and office use

Movement Makes Steady Progress

Co-operation has made steady progress in this State in all spheres with respect to number of societies, membership paid-up and working capital. In the last ten years, the total number of societies has risen from 12,739 in 1937-38 to 18,356 in 1947-48 or by 44.09 per cent, the number of members of all societies from 984,724 to 2,538,272 or by 157.55 per cent, paid-up capital from Rs. 235.35 lakhs to Rs. 807.08 lakhs or by 242.93 per cent, working capital from Rs. 2,005.65 lakhs to Rs. 5,660.33 lakhs or by 182.22 per cent and reserve fund from Rs. 179.86 lakhs to Rs. 431.35 lakhs or by 141.48 per cent.

The Apex Bank.—The Madras Provincial Co-operative Bank, the apex bank, has also in the last decade registered a steady expansion of its activities. The paid-up share capital has increased from Rs. 6.55 lakhs to Rs. 8.99 lakhs, deposits from members from Rs. 142.13 lakhs to Rs. 278.43 lakhs, loans and deposits from societies from Rs. 60.03 lakhs to Rs. 182.11 lakhs, the reserve fund from Rs. 17.50 lakhs to Rs. 35.00 lakhs, working capital from Rs. 236.45 lakhs to Rs. 618.15 lakhs, loans issued from Rs. 88.24 lakhs to Rs. 453.31 lakhs and net profits from Rs. 2.36 lakhs to Rs. 4.51 lakhs.

Land Mortgage Banks.—It was beyond the competence of rural credit societies to grant long-term loans to their members even for legitimate purposes like the improvement of land and clearance of prior debts. Government scrutinised the proposals for organising land mortgage banks on the Punjab model submitted by the Registrar and approved them in 1925 and a few banks were organised as an experimental measure. The movement gained strength from year to year. The number of land mortgage banks increased from two in 1925 to 37 in 1930-31. They floated debentures for raising funds which ended in acute competition among them. In 1929, to eliminate this suicidal competition, the Central Land Mortgage Bank was constituted with the object of financing the primary banks through floating of debentures.

This Central Institution has recorded steady progress. The number of primary Land Mortgage Banks has increased to 120 in 1947-48.

Agricultural and Non-agricultural.—There are 12,056 agricultural credit societies with 84,368 members, a paid-up share capital of Rs. 98.47 lakhs, a reserve fund of Rs. 97.00 lakhs and a working capital of Rs. 722.64 lakhs. The number of non-agricultural credit societies is 1,138 with 232,224 members, a paid-up share capital of Rs. 131.43 lakhs and a working capital of Rs. 772.93 lakhs. There are 20 Central Banks with 4,122 individual members, 15,317 members of co-operatives and working capital of Rs. 1,406.93 lakhs.

Co-operative Stores.—The growth of the Co-operative Store Movement has been striking since the establishment of the first and other centres in 1942-43.

School and College Stores.—The spread of the stores movement among students and teachers in recent years is an interesting feature. The number of School and College Stores has risen from 81 in 1938-39 to 279 in 1947-48, the number of student and teacher members from 2,241 to 32,537 or nearly fourfold and associate

members from 10,251 to 30,380 or threefold. The paid-up share capital has risen from Rs. 13,922 to Rs. 57,173, value of books sold from Rs. 1.73 lakhs to Rs. 10.23 lakhs and savings effected for members from Rs. 7,000 to Rs. 18,077.

District Co-operative Wholesale Stores.—The number of District Co-operative Wholesale Stores has made an equally notable progress. The number of District Co-operative Wholesale Stores has risen from two in 1939-40 to 22 in 1947-48.

Weavers' Societies.—Of the Producers' Co-operative Societies, the Weavers' Co-operative Societies have made great strides. The number of societies has increased from 174 in 1938-39 to 893 in 1947-48, and the number of members from 19,676 (in 1941-42) to 132,968, thus bringing within the co-operative fold one in every four weavers in the State. The paid-up capital has increased from Rs. 1.27 lakhs in 1939-40 to Rs. 60.20 lakhs in 1947-48. The value of cloth sold rose from Rs. 7.37 lakhs in 1938-39 to Rs. 814.15 lakhs and the net profit from Rs. 0.16 lakhs to Rs. 33.42 lakhs in 1947-48. They have built up a Reserve Fund to the tune of Rs. 50.37 lakhs.

Co-operative Dairying.—The number of Milk Supply Unions has gradually risen from six in 1938-39 to 23 in 1947-48 and that of milk supply societies from 51 to 354.

Apart from Weavers' Societies, the number of Cottage Industries Co-operative Societies has increased from 68 to 209 in the last decade. In 1947-48, they had 20,365 members and a paid-up capital of Rs. 4.55 lakhs. The value of goods received and sold by them were Rs. 17.45 lakhs and Rs. 21.92 lakhs respectively.

Co-operative Marketing.—Co-operative Marketing could not make much headway in an atmosphere of excessive controls. Some of the sales societies were however entrusted with the procurements of foodgrains. Many undertook supplies of compost, manures, agricultural implements, seeds and a few undertook processing like hulling of paddy, decortication of groundnut and ginning of cotton. Storage facilities were provided by 24 societies.

In 1947-48, the number of Scheduled Caste Co-operative Societies was 2,103 with 1,12,000 members, a paid-up capital of Rs. 6.28 lakhs, deposits from members of Rs. 87,000 loans from Central Bank of Rs. 6.35 lakhs, from Government of Rs. 2.45 lakhs and a working capital of Rs. 24.09 lakhs. Apart from these exclusive societies, members of the Scheduled Castes are free to join any type of co-operative society in their localities; and in 1947-48, 52,000 people belonging to these communities were members in 5,569 other rural credit societies, their contributions in the shape of share capital being Rs. 3.54 lakhs.

There were also 259 societies for Kallars, a backward community found in Ramnad and Mathurai Districts, under the Police Department and 51 societies under the Fisheries Department with a total membership of 16,135. In addition to providing credit, most of these societies make joint purchase of domestic requirements of their members. The Societies for Fishermen purchased yarn for making nets and leased inland fisheries. Besides free supervision,

Government grant subsidies to these societies to pay remuneration to persons maintaining their accounts. The Harijan Welfare Committee has recommended that Co-operative Housing Societies, Cottage Industries Societies, etc., should be formed exclusively for Harijans; free grants of land should be made to Housing Societies and loan grants from the Harijan Welfare Fund.

Co-operative Insurance.—In the sphere of insurance too, Co-operation has made some advance. In almost every sphere of economic activity, the co-operative method is being applied. There are at present 16 Fruit Growers' Co-operative Societies, 44 Women's Cottage Industries Societies, 188 Societies for Housing in addition to several societies for labour contract, canteens, restaurants, printing, motor transport, salt licences, education and publishing, rickshaw pullers, workshops, land colonisation, radio sales and services and tailoring. The latter five types have been specially organised for ex-servicemen.

Co-operation in this Province has made relatively greater progress in the spheres of long-term agricultural credit and non-agricultural societies compared with the whole of India. In the field of short-term agricultural credit, the number of societies is 13,514 against 146,958 societies in India (including States). For a population which is roughly one-eighth of the Indian population the number of societies is less than one-tenth. The deposit per member is Rs. 4.32 in Madras compared with Rs. 9.88 in India. But in the share capital per member, loans issued per member and loans per capita of the agricultural population, Madras compares favourably with India.

OPTIMISM

I have never left my optimism. In seemingly darkest hours hope has burned bright within me. I cannot kill the hope myself. I must say I cannot give an ocular demonstration to justify the hope. But there is no defeat in me.

—MAHATMAJI

In the development of Land Mortgage Banks, Madras, leads with 120 banks out of 284 in India. The number of members is 97,969 against 135,857 in India. Of the total loans of Rs. 58.11 lakhs for India, the loans issued in Madras amount to Rs. 41.18 lakhs or more than two-thirds.

The total number of non-agricultural societies in Madras is 4,722 or about one-fifth of the societies in India. The total share capital is nearly one-third and the loans issued about one-third.

Expenditure on Co-operation in this State has risen from Rs. 13.82 lakhs in 1938-39 to Rs. 61.32 lakhs in 1949-50. From 6 pies in the former year, the per capita expenditure has risen to 22 pies in the latter year, a rise of about 366 per cent. It is however, only about one-third of that in Bombay which incurs the highest per capita expenditure in India.

BOOK REVIEWS

RELIGION IN LIFE

By MINOCHER K. SPENCER

Published by the Spiritual Healing Centre, R. S. Puram P.O., Coimbatore, South India. Price Rs. 2.

Religion and economic ideologies are now dividing the world into various camps and "isms" and the average man is at his wit's end to find solace or happiness. There is aggressive propaganda on behalf of every section of views and the common man is the unfortunate victim of all these machinations. One section derides the other and tolerance of any kind has become a thing of the past, very often resulting in the application of force as the only resort for the solution of disputes.

In such a dreary world, writers like Mr. Spencer supply the soothing balm by their attempts to discover the fundamentals of every creed and religion which provide the largest common measure of agreement. In his *Joyous Mysticism* he gave a picture of mystics belonging to various religions, furnishing the connecting links through the identity of their methods and aspirations. He has followed up the same line of thought by the present volume in which he makes a comparative study of the major religions of the world showing their agreement in fundamentals. As Swami Sri Rajeswarananda pertinently points out in the introduction, Mr. Spencer "lays emphasis on the synthesis of the divine in man and the human in God." His study covers the religion of the Vedas, Zoroastrianism, Buddhism, Christianity and Islam, proving his general theme of unity by quoting from the gospels or sacred texts of each religion. He proceeds to analyse the views of the great Saviour's on love, faith, the efficacy of prayers, asceticism and kindred topics and the prevailing atmosphere of irreligion in the modern world.

This highly sensible work is eminently worthy of perusal and study by every thinking man.

ANANTASAYANAM

By L. K. B. RATNAM

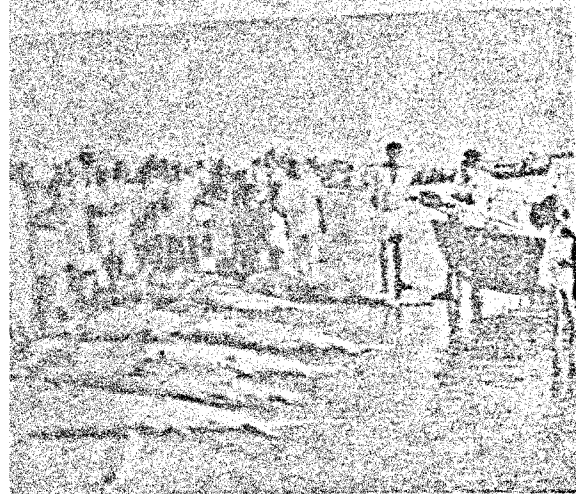
Published by the Presidency Book Supplies, Madras-5. Price Rs. 2.

This description of the famous Padmanabhaswami temple of Trivandrum gives a readable account of the famous shrine and its architectural peculiarity and beauties. The author has dealt with his theme more as an admirer than a critic. The noteworthy feature of the temple is its idol which is by far the biggest in size of all the idols that could be seen in Hindu temples of India. Another peculiarity is its lying posture, and the three doors through which the deity should be viewed by worshippers. Although Vishnu is often represented as lying on "Sesha", the God of Serpents, the God is nowhere installed in the lying posture. This unique phenomenon deserves closer study and investigation. Besides, the temple architecture is a mixture of the Malabar and Tamil styles.

The tourist will find many interesting details of the festivals of the temple and the mural paintings of which it has plenty and the author's endeavour to present them in a bookform is really commendable.

K.C.N.

Vitamins From The Ocean



Small canoes brave ten miles into the sea to catch sharks



Taking out the liver

As the population of the world increases at the alarming rate of 60,000 per day, the pressure on the land for subsistence becomes acute. The cultivable surface of the earth is limited and even after intensive cultivation and farming of this available area, it will be found difficult to feed the population adequately. Increasingly it will be necessary to turn to the sea for augmenting our resources of proteins, carbohydrates, fats, vitamins and minerals. For thickly-populated countries like India and China, where mal-nutrition is rampant, it is absolutely necessary that these resources are tapped at once.

During the initial stages of vitamin research, cod liver oil was thought to be a rich source of Vitamins A and D. But it was not long before other richer sources of these vitamins were discovered. It was soon found that halibut liver oil and shark liver oil were vastly superior sources. Cod liver oil on an average contains about 1,000 international units of Vitamin A per gram; never exceeds more than 3,000 generally. Halibut liver oil, on the other hand, contains, on an average, 50,000 international units per gram and goes sometimes as high as 300,000. Shark liver oil averages about 10,000 to 15,000 and reaches a peak of 200,000 at times. Today cod liver oil is, therefore, considered to be comparatively a poor source of Vitamins A and D.

World Development

The world cataclysms encouraged and stimulated the establishment and development of these new liver oil industries. The Nazi conquest of Norway during the last war cut off the supplies of cod liver oil to the world. Alternative sources of Vitamins A and D were intensely sought in all parts of the world and soon shark liver oil was produced in the United States of America, Canada, Australia, New Zealand, South Africa and India. In India, the industry was started in Madras, Travancore, Bombay, Sind and Baroda. Attempts are now being made to produce the oil in Orissa and Bengal also.

In the United States, like many other things in that land of abundance, the liver oil industry reached peak production during the war years. It produced on an average about 14 million dollars (5 crores of rupees) worth of liver oils equivalent to about 70 billion units of Vitamin A. The total production in India is almost insignificant at half a billion units.

Madras, the Pioneer

In India the pioneers in the industry are the Madras Government who have the largest factory in the East for the production of shark liver oil at Kozhikode. The factory's standardised products like Madras Government Brand Shark Liver Oil and high potency vitamin oil, Adamin, are well known in India. During the gruelling years of the war, it supplied fully the needs of the armed forces and is now switched on to meet the demands of the civilian population.

The medicinal fish liver oil industry in this Presidency dates back to 1854, long before the existence of vitamins was ever known. The main centre of production was

Kozhikode where manufacture had been started in 1854 under the supervision of the Civil Surgeon of Malabar. For some years as much as 5,000 lb. of oil were being manufactured. As in the case of many other Indian industries, foreign competition from cod liver oil rang the death-knell of this industry too. In 1870, the price of imported cod liver oil fell below that of the indigenous product and the nascent industry languished. Modern methods of analyses could have shown the higher potency of shark liver oil and saved the industry. As it was, such a rich source of vitamins was once again used by the fishermen for such a sordid purpose as painting the bottoms of boats.

The researches during the early years of the present century showed the importance of vitamins in nutrition and this revived interest once again in liver oils. Thanks to the research carried by the Fisheries Department of Madras Government and the Nutrition Research Laboratories, Coonoor, the potentialities of shark liver oil as a rich source of Vitamins A and D were recognized. After the stoppage of imports of cod liver oil from Norway, consequent on the Nazi conquest in 1940, the shark liver oil industry was once again revived at Kozhikode. The development of this industry has been since fostered by the Madras Government.

The Shark

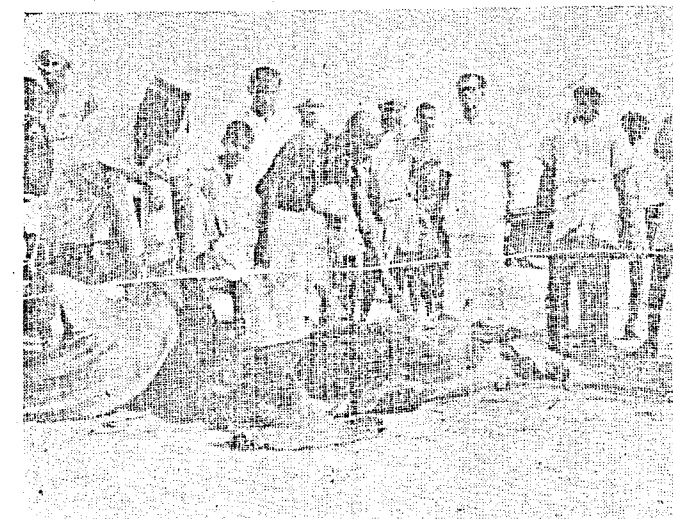
The oil is extracted from the fatty livers of the sharks which belong to the group of cartilaginous fishes which includes the skates, rays and dog fishes. There are about 49 species of these fishes and 57 of them are represented in the waters surrounding this State. Only 20 species out of these are of commercial importance.

The sharks have no bony skeleton to support the body. They are of various sizes; a few even attain a length of 40 feet. The smaller ones go by the name of dog-fishes. A widely distributed species, they are most numerous in seas and estuaries of tropical regions. They occur at different depths, from the surface to deep down to 1,000 fathoms; from shallow waters round the coast to midocean. Predaceous as they are, their food is highly diversified, ranging from plankton, molluscs, crustaceans, vertebrates or even other fishes, of no small size. In addition, the bigger sharks snap at anything that comes their way, and unusual articles such as canned beef, biscuit tins, sheep and whole bags of rice have been found as stomach contents.

The ordinary drift-net suffices for fishing small species. This is about two furlongs in length and has a six-inch mesh. This is made to hang like a curtain in the sea by buoys and sinks and the sharks get enmeshed in this. An alternative method makes use of long lines. These consist of hook lines measuring from 2 to 5 furlongs. To these are attached at six-foot intervals nine-inch cords carrying small hoods. This is buoyed up and anchored in position like the drift nets. The hooks carry bait such as sardine or mackerel. Bigger hooks are used in the case of large sharks. Small canoes with a crew of two or three are employed in shark fisheries. Sometimes these have to brave as far as twelve miles into the sea. This is indeed a hazardous and arduous task.

Extraction of Oil

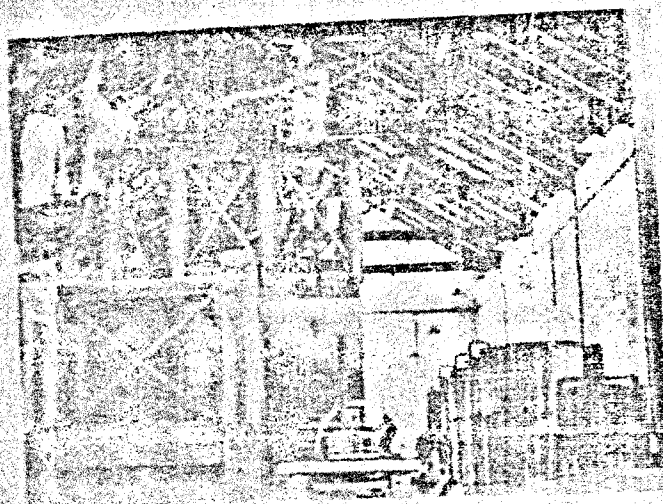
The livers vary in size, depending upon the size of the shark. A single liver may be anywhere from a few



Some huge specimens

Hook lines for catching shark





Extracting oil from shark liver

ounces to 400 lb. in weight as in the case of a saw-fish measuring 25 feet. Their oil content also varies from season to season and from shark to shark and according to a host of other factors. Wide variations are also found in the Vitamin A potency of these oils and this also has been found to be affected by many factors. There are various methods of extracting the oil from the livers. The simplest is to chop the liver and boil it on open fire and skim off the oil that cozes out. But this is a tedious and long process. Steaming the livers shortens the time but like the first method is not so efficient as one would wish.

There are solvents and chemical methods, the details of which are mostly trade secrets. The Madras Government intend to install a new plant for the most efficient modern method of extraction of liver oil in the very near future. This would ensure the maximum yield theoretically possible. At present 200,000 lb. of livers or more are being treated for oil in this State. The liver has become economically more important to the fishermen than the whole shark a few years ago.

Vitamin Assay

The shark liver oils derive their importance from their contents of Vitamins A and D. There is no chemical method for estimation of Vitamin D. It has to be analysed biologically by using rats. Our shark liver oil has been found to contain, on an average, as much or more Vitamin D than that of cod liver oil. On the other hand, Vitamin A could be estimated by other methods than biological which, though fundamentally the only reliable one, is tedious, time-consuming and costly. Vitamin A could be assayed either by the blue colour reaction which it gives with satimery triiodide in chloroform or by the spectrophotometric method. The Government Factory at Kozhikode is equipped with the most modern spectrophotometric instrument and the latest model of the Beckman Quartz-Infrared Spectro photometer, perhaps the first of its kind in India, will be delivered soon to this factory by an American firm.

Vitamins are essential food constituents and are a definite part of the complete ration just as are proteins, carbohydrates, fats, minerals and water. They are complex organic compounds which although present in very minute amounts in food from plant and animal sources, exert an important effect upon living processes. There are about twenty vitamins known at present. The important vitamins in shark liver oil are Vitamins A and D. Vitamin A is also called the fat soluble, growth promoting, anti-infective, anti-ophthalmic and anti-keratinizing vitamin. Although carotene, the yellow pigment in plants, could be converted into Vitamin A by the body, recent research has proved that this is a biologically inefficient process. Therefore preformed Vitamin A as it exists in our shark liver oil is to be preferred in cases where Vitamin A is urgently needed. Vitamin D is fat soluble, bone-building, calcifying and anti-rachitic vitamin.

Vitamins for Livestock

Vitamins A and D are not only needed by human beings but are equally important in the dietary of livestock. The potentialities of shark liver oil as a factor in the rearing of farm animals has not been realized in our country. In fact, the whole research of vitamins dates back to Eijkman, a Dutch physician, when he observed polyneuritis in chicken fed on polished rice. The administration of rice polishings cured the chicken and the new field of nutrition was born. To-day Vitamins A and D are known to be essential to livestock and in most western countries, farm animals consume as much liver oil as human beings. In Canada, for instance, about 100,000 gallons of liver oil are administered to farm animals. Although our country can boast of the largest cattle population, yet it is a matter of regret that our quality is most disappointing. It is natural to expect that shark liver oil will play no small part in the improvement of our livestock in which so keen an interest is now being shown on all sides.

It is apparent that shark liver oil is of great consequence to a nation like India. We do not produce enough for 350 million people and 200 million farm animals.



Vitamin content of shark liver oil is carefully assayed

Modern Methods in Poultry Keeping

Poultry keeping in Madras State though widely distributed, is more concentrated in the Northern Circars, West Coast, Central Districts, Tanjore, Truchirappalli, and Trunelveli. It is a cottage industry mainly of the poor class, every family keeping a few birds. Large-scale poultry farms of the type developed in the Western countries do not exist in this Presidency except to a limited extent on Government farms and a few missionary institutions. During recent years the demand for poultry and eggs has greatly increased. On account of low poultry population and their low production, it has not been possible to meet the entire demand for eggs and table poultry in the country. Efforts are, however, made to increase the production in all possible ways.

The ordinary poultry-keeper in our country does not take a serious interest in the upkeep of poultry. He still follows primitive methods of housing, feeding and management of chickens; consequently, the loss due to accidents and diseases are heavy. At present, the birds mostly have to find their own food in the dust heaps, drains and from other unclean places. Their full capacity for production has not been fully utilised. Better feeding and housing and eradication of the diseases among the birds are then some of the lines on which improvements in poultry industry can be effected.

Improved Breeds

The improved breeds of poultry like the White Leghorn, Rhode Island Red and Black Minorcas are bred in Government institutions and introduced in the rural areas. Although the number of birds produced and introduced is comparatively less in proportion to the *desi* birds, yet the results achieved have been satisfactory from the point of increased production. The ordinary country fowls lay about 50 eggs per annum while improved birds lay an average of 160 to 180 eggs per annum. The size of the eggs produced by the improved birds is far better as they weigh 1½ to 2 oz. while the *desi* egg weigh 1½ oz. per egg.

The Government Poultry Farms at Madras and Hosur are the largest farms in this State. There are thirty small-scale poultry demonstration units functioning in some of the important veterinary institutions. A poultry farm is also attached to the Livestock Research Station, Lam, Guntur. Three District Poultry Farms have recently been opened at Chittoor, Cuddapah and Cannanore. Poultry farms are also attached to the Agricultural Research Stations and it is proposed to start 15 farms during the current year.

Training Schemes

Besides these there are also Co-operative Egg Marketing Societies and Land Colonisation Schemes that have undertaken poultry farming to a limited extent. Introduction of poultry schemes are also under way in all the Firka Development scheme villages. Some work has already been taken up in this direction. Practical training in poultry keeping is given to students at the Poultry Research Station, Madras, and Livestock Research Station, Hosur Cattle Farm.



Incubators for hatching eggs can be heated by an oil lamp or run on electricity

The frequent occurrence of disease epidemics among the flocks of poultry is a outstanding impediment to the progress of the industry. The Ranikhet disease had all along been the worst of the impediments. But during recent years the birds are immunised by a successful method of vaccination. Every poultry-keeper should take advantage of this and periodically get the birds protected. The special staff of the Animal Husbandry Department is engaged on this work. The vaccine is prepared by the Veterinary College, Madras, and the nearest Veterinary Officer should be contacted.

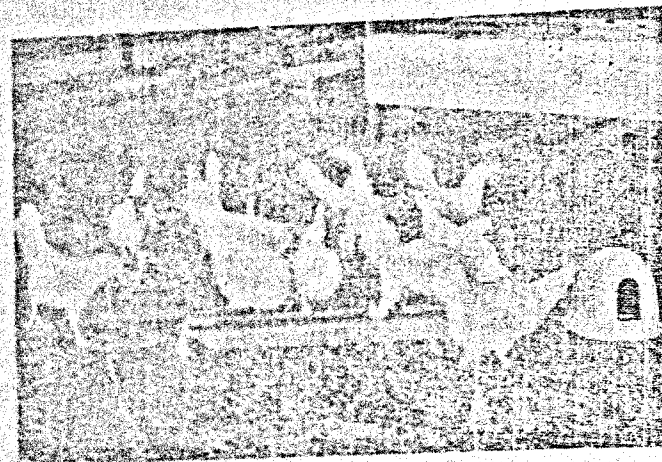
Three Good Breeds

The Leghorns are named after a town in Italy, being the place of their origin. There are several varieties of which White Leghorn is very popular. They have become acclimatised to our climatic conditions and lay on an average about 180 eggs per annum. The birds are small in size, active and early maturing—in about 6 to 6½ months. They lay large white shelled eggs.

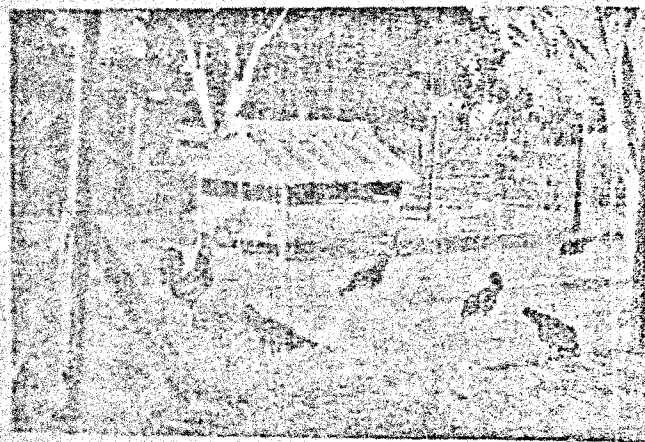
Black Minorcas are good layers of large white shelled eggs. Minorcas are named after the place of their origin in Spain, so are a Spanish Breed. The hens lay an average 155 eggs per annum under the prevailing conditions. They are not so hardy as White Leghorns, but thrive well in temperate places.

Rhode Island Reds are an American breed. They are dual purpose birds. They lay an average of 160 eggs per annum and the eggshell is brown in colour. They are useful for the production of both eggs and meat and are very popular. They are hardy and are suited for introduction in this Presidency.

The water pot for birds should be covered with a dome-like cover with an opening on one side. The water keeps clean and cannot be polluted by the hens dipping their feet. The Poultry house is made of wooden frame and is



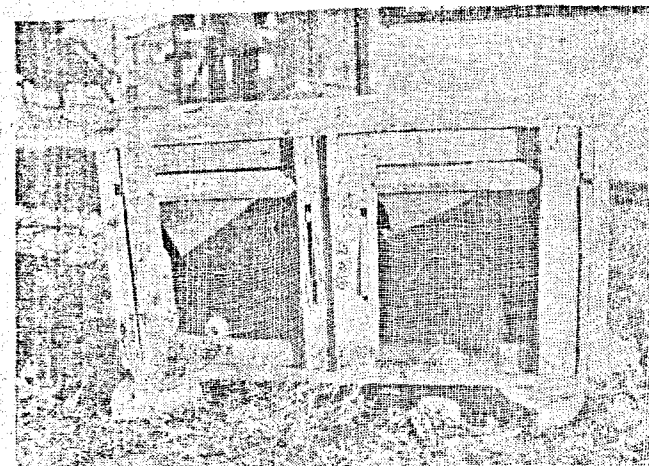
White Leghorns have become acclimatised



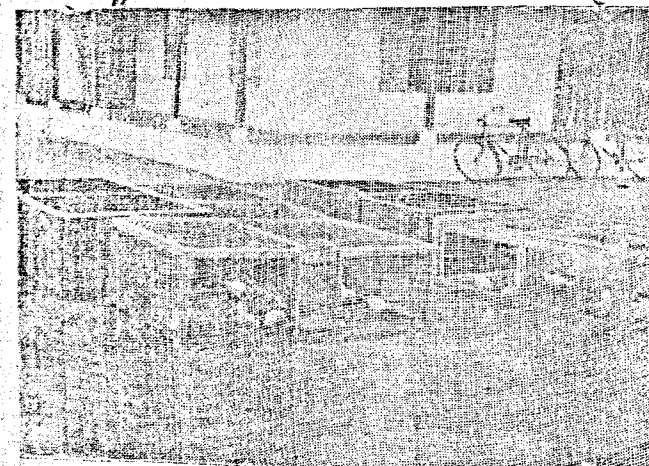
Black Minorcas are good layers and thrive in temperate places



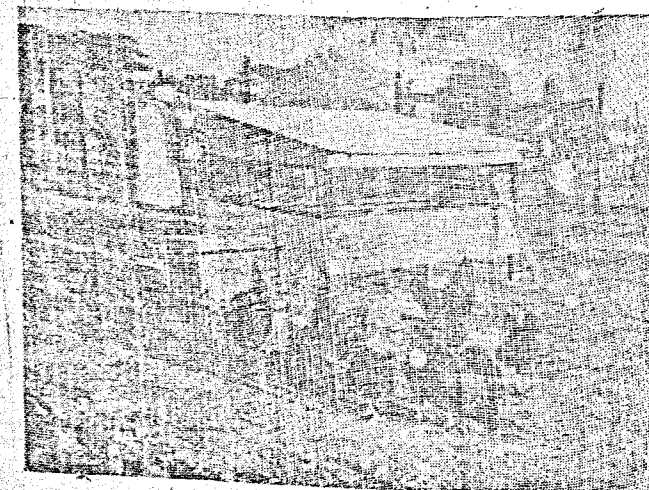
Perches in the poultry cage counts by genetic dominators



Trapnest egg-laying box enables pedigree breeding



Chick runs like these protect the young ones from birds of prey



Rhode Island Reds are hardy dual purpose birds

covered on the top and sides with asbestos sheets. The openings are fixed with $\frac{1}{2}$ inch mesh expanded metal.

Hens like foraging and pick a lot of grass and green food. They must be given a good grassy plot. The birds take exercise by scratching the ground and pick insects and worms. As far as possible, the birds should be reared under natural conditions. There must be a free range, proper protection with a good grassy plot provided for them to move about. The growing birds thrive well on fresh ground.

The birds should be housed in the Poultry Cage with perches. These perches are provided for the birds to roost; otherwise, they will sleep on the floor on the droppings under unhygienic conditions. The Poultry-house should be constructed so as to provide them with necessary comfort. They should protect the birds from their enemies, wild animals, thieves, etc. They should be roomy. Direct sunlight should fall into the house. Proper ventilation and free circulation of air are the factors that go to make a good poultry-house.

Green food for poultry is very essential. It is valuable because of the essential vitamins it affords. It is also a principle source of iron in poultry feeding. Fresh green pasture forms an excellent feed for poultry. The birds pick the young shoots of plants and thrive very well. When a large number of birds are kept under farm conditions, it becomes very necessary to grow adequate quantity of green food. Sunhemp, Pillipesara, Lucerne, Añanathus, Radish, etc., make excellent green food for the chickens.

Labour: Worker-Management Disputes

Government have declared that the provisions of the Factories Act shall also apply to that portion of the premises of the Mettur Chemicals and Industrial Corporation, Limited, Vanaspati Factory at Tiruchirappalli in which the Indian Oxygen and Acetylene Company, Limited, Tiruchirappalli, carry on the work connected with the manufacture of Oxygen.

About 70 workers of the Madras Electricity System, Basin Bridge, staged a stay-in-strike on 5th January 1950. The Deputy Commissioner of Labour went to the spot and advised the workers to resume work immediately. The workers agreed and did so. A similar strike was staged at Mount Road. The Officers of the Department advised the workers to resume work and the workers resumed work at 3 p.m. The cause of the strike is non-payment of bonus, etc. Government enforced the award of the Industrial Tribunal, Vijayavada, in the dispute between the workers and the management of the Maruthi Bus Service, Bhimavaram, West Godavari district. Government have enforced the award of the Industrial Tribunal, Mathurai, in the dispute between the workers and managements of certain handloom factories in Karur, Tiruchirappalli district, regarding payment of bonus.

The dispute between the workers and the management of beedi factories in Coimbatore district, etc., has been referred to the Industrial Tribunal, Coimbatore, for adjudication.

Egg Recording

The trapnest box is an egg laying box for the hens to lay the eggs. The box is usually of dimensions $24' \times 14' \times 16'$ with two compartments. The opening is fitted with a trapdoor. This is an arrangement by which the trapdoor closes after the hen enters the nest for laying and she cannot come out until released. Each hen is numbered with an aluminium leg band number or a swing band number. At the time of egg collection, the number of the hen is noted on the egg itself and recorded to her credit. By this method the individual performance of the birds can be studied. In pedigree breeding, it is necessary to know the number of eggs a hen has laid within a specified period, the weight and also the quality of the egg laid.

The eggs are assembled in a egg tray as they are collected daily. At the end of the day, the eggs are weighed in an egg-weighing scale and recorded in a register.

Hatching

Incubators are used for hatching the eggs. Incubators are box like machines heated either by an oil-lamp or run on electricity. There are various types and sizes. The baby chicks are delicate and require careful handling. They should be kept in warm coops. The chicks are left in a fresh grassy plot. They are covered with a chick run to protect the young ones from hawks, crows and kites. They need exercise and space to move about.

The Commonwealth Tile Workers' Union, Mangalore, struck work on 9th January 1950. The Labour Officer, Kozhikode, is looking into the matter.

Labour disputes

Government have declared the Sugar industry in the State of Madras to be a public utility service for the purposes of the Industrial Disputes Act, 1947, for a further period of six months from 25th January 1950.

Government have referred the industrial dispute between the workers and the management of Tanneries, Madhavaram, Chingleput district, to the Industrial Tribunal No. 1, Madras, for adjudication. Government have enforced the award of the Industrial Tribunal No. 1, Madras, in the dispute between the workers and the management of the Bombay Engineering Works, Madras. Government have enforced the award of the Industrial Tribunal, Madras I, in the dispute between the workers and management of the Madras Type Foundry, Madras, as regards reinstatement of a worker and refund of the wages cut. Government have enforced the interim award of the Industrial Tribunal, Madras I, in the dispute between the workers and the management of Messrs. Sri Krishna Tiles and Potteries (Madras), Ltd.

Government have enforced the award of the Industrial Tribunal, Madras I, in the dispute between the workers and the management of Messrs. Massey and Company, Madras. The workers of five cigar companies struck work on 12th

January 1950. The cause of the strike was reported to be the non-payment of bonus by the managements. The workers resumed work on 17th January 1950, on the advice of the Commissioner of Labour. The workers of Gordon Woodroffe Leather Manufacturing Company staged a stay-in-strike on 16th January 1950 as a protest against the transfer of one workman from one department to another. The workers have been advised by the Labour Officer to resume work pending conciliation of their grievances. Government have sanctioned the prosecution of the management of Peepa Mark Cigar Company, Kumbakonam, as the latter has committed an offence punishable under section 31 (1) of the Industrial Disputes Act, 1947, by way of changing the conditions of service of workmen without obtaining the express permission of the Industrial Tribunal, Mathurai, in writing during the pendency of adjudication. Government have referred for adjudication the industrial dispute between the workers and the management of the Karur Transports

Limited, Karur, to the Industrial Tribunal, Mathurai. Government have enforced the award of the Industrial Tribunal, Vijayavada, in the dispute between the workers and the management of the Indian Leaf Tobacco Development Company Limited, Anaparthi, East Godavari district.

Government have referred the industrial dispute between the workers and the management of Tile Factories, Feroke, Malabar District, to the Industrial Tribunal, Coimbatore. About 50 coolies of the Joe Tile Works, Mangalore, struck work on 24th January 1950 without any prior notice as a demonstration against the celebration of the Republic of India. On 2nd January 1950, a stay-in-strike was resorted to by 62 out of the 82 workers of the Coronation Tile Factory, Mangalore, as a protest against the management's failure to give them full wages for the work turned out by them on 23rd December 1949. The 62 workers are reported to be continuing the strike. The situation is peaceful.

[January 1950.]

Electricity: Review of Construction

Magar Hydro-Electric Scheme.—Masonry work of the entire Singara Diversion weir was completed except for the flood gap in the spillway section. Erection of the built-in parts for the gates was also in progress. Masonry of Marsakanoli Dam was nearly completed and further work in spillway and non-overflow sections was progressing. Flume excavation in the remaining few stretches and provision of flood escapes, etc., were in progress. Half the work in the formation of earthen bund of the forebay was completed and further work was being continued. Laying of the haulage track upto third anchor near powerhouse was completed. Excavation for machine and station foundations for the Powerhouse was almost completed.

Pikara Plant Extension.—Excavation on the left flank and drilling of exploratory bore holes on the right flank of the Pikara Dam and testing of soils were continued. Dam masonry between ch. 300-340 was progressing. Grading for the penstock line near Powerhouse end was in progress, rest of the reaches having been completed. Collection of materials for the construction of piers and anchors was continued.

Pikara-Magar-Erde 110 KV. Line.—Tower erection for 400 locations out of 412 locations, earthing for 342 locations, painting first coat for 278 locations, painting second coat for 189 locations, paying out conductors for 56 miles, stringing of conductors for 58 miles and stringing of earth wire for 9½ miles have been completed.

Perambalur Plant Extension.—Work on the low pressure pipe line was completed, and the pipe line was put into commission. The fourth unit turbine bed was completed and control of the turbine and generator was being awaited. Construction of columns and beams for the Virudhunagar Substation extension were completed.

Madurai Thermal Scheme.—Construction of the powerhouse building was continued. Preparation of mould and casting of R.O.C. for the steam end of the turbo-set have

been completed. All the trusses for the boiler room are ready for hoisting.

Madras Plant Extension.—The foundation slab for the main power station has been completed. Precast piles were being got ready by Messrs. Simplex for the ancillary works at 'B' Station.

Nellore Thermal Scheme.—Flooring for the cooling water pond was continued and C.R. masonry wall for the west pond was nearly completed. Sheet piling and ridges of M.B. Shed for first unit and roofing sheeting for the second unit were completed. The 16 feet diameter well was almost completed. P.T. Set foundations were completed for both the sets. Staff quarters were in different stages of progress.

Ceded Districts Scheme.—Erection of towers for the 66 KV. transmission line, earthing and two coats of painting have been completed in Hospet-Bellary and Bellary-Guntakkal Sections. Stringing of power conductors up to location 272 and earthwire upto location 297 out of 315 locations in Hospet-Bellary section were completed.

Excavation of pits, erection of 509 Tangent poles out of 554 poles and fixing of insulators and stringing end, paying out conductors for 34½ miles were completed for the Bellary-Adoni 33 KV lines. Eleven miles of telephone lines were paid out and string for the above section. Construction of quarters at various Substations were under different stages of progress. The third 1,000 KVA transformer for Bellary was being transported to site.

Hindupur Scheme.—Painting of poles of the 33 and 11 KV. transformer lines was under progress. Three poles have been erected on 11 KV line to Masuvapalli. Two 11 KV distribution transformer structures have been erected.

Machkund Hydro-Electric Scheme.—Work on coffer dam second stage of diversion dam was progressing. Earthwork

excavation for diversion dam between chainage 540-650, flume and tunnel pond was continued. Tunnelling both at entrance and exit of pressure tunnel was proceeding and 91 feet length had been done. Widening the tunnel mouth was in progress; open excavation at tunnel exit for a length of 60 feet was completed. Tree-cutting was in progress in the Visakhapatnam-Rajahmundry and Tennuboddavara Nellimarla Sections of 132 KV line. In the Visakhapatnam-Machkund reach, check survey was completed. Labour strength during the month was 3,617.

Vijayawada Power-house Extensions.—R.O. raft laying had been completed except under ash tunnel portion. Concrete foundations under Machines 4 and 5 were laid. Grouting with cement concrete under boiler foundations

and girders was completed for No. 4 boiler. Foundation works for Tower locations in the Godavari River Crossing works were completed in all respects.

Four wagon loads of structural steel material were received up to date from Messrs. Richardson and Cruddas for the Vijayawada Power-house. All the Tower materials for the Vijayawada-Rajahmundry line were received.

Visakhapatnam Power-house Extension.—Concreting for the compound wall had been nearly completed and masonry work was in progress. C.W. pipe trench for the fourth unit was completed. Fabricated materials for the roof were being awaited. Fifth boiler erection was nearly completed.

Working of a Grama Seva Mandir

Thimmapuram, a village in Kalyandrug Taluk, Anantapur district, has been a centre of activity in the direction of rural uplift work. A social service league designated as Grama Seva Mandir was started by the youths of the village in 1942, with the object of rehabilitating village life in the social, moral and economic spheres. To start with, khadi production was taken up, and in 1943 a school for the Harijans was opened. In August 1947, the institution was registered and it now has a definite constitution and rules of conduct. The main objects of the Seva Mandir are—

To promote cultural, educational, economic and social welfare of the rural masses.

To establish and maintain such institutions as may be found necessary to achieve the above objects.

To own, buy, sell, lease, let or hire and deal with property of any kind in such manner as may become necessary for realizing the above ideals.

To own funds, collect monies, raise donations and subscriptions for rural uplift work.

To organise and run cottage industries.

To co-operate with and assist the Government and any other institution, Government or private or individuals in furtherance of the objects of the Society.

To counteract in every way, all such activities and forces as may harm the interests of rural classes.

The management of the Seva Mandir vests in a body of Directors. Thimmapuram is a small village in Kalyandrug Taluk, Kambadur revenue firkha. It has three hamlets—Obaganapalli, Jakkereddipalli and Chhapalli. The population of the village is 2,000, of whom 700 are Harijans. There are 300 houses on the whole. The village is six miles to the west of Kambadur and three miles from the Kambadur-Kalyandrug road. There is at present no regular road to the village. After the Seva Mandir started its working, the Highways department has sanctioned a road leading to the main road. This is marked for execution in 1950-51. There was no post-office in the village. The Seva Mandir has been able to convince the authorities of the need, and a post office was opened in September 1949. The Centre has opened a

Radio House, and it has a free reading room and library, schools for Harijans and Hindus, and an adult school also.

Some of the Seva Mandir's main activities are khadi production, Harijan uplift, medical aid, education, agriculture and animal husbandry, distribution of food-stuffs and prohibition propaganda. There are nearly 20 charkas in and around the village. Most of these were formerly idle. The villagers were encouraged to spin. But difficulty was experienced in the initial stages, for want of weavers who knew handloom weaving. This was got over. In the first year, the Centre produced no cloth and in the second year Rs. 1,050 worth of cloth.

The Centre produced khadi as follows:—

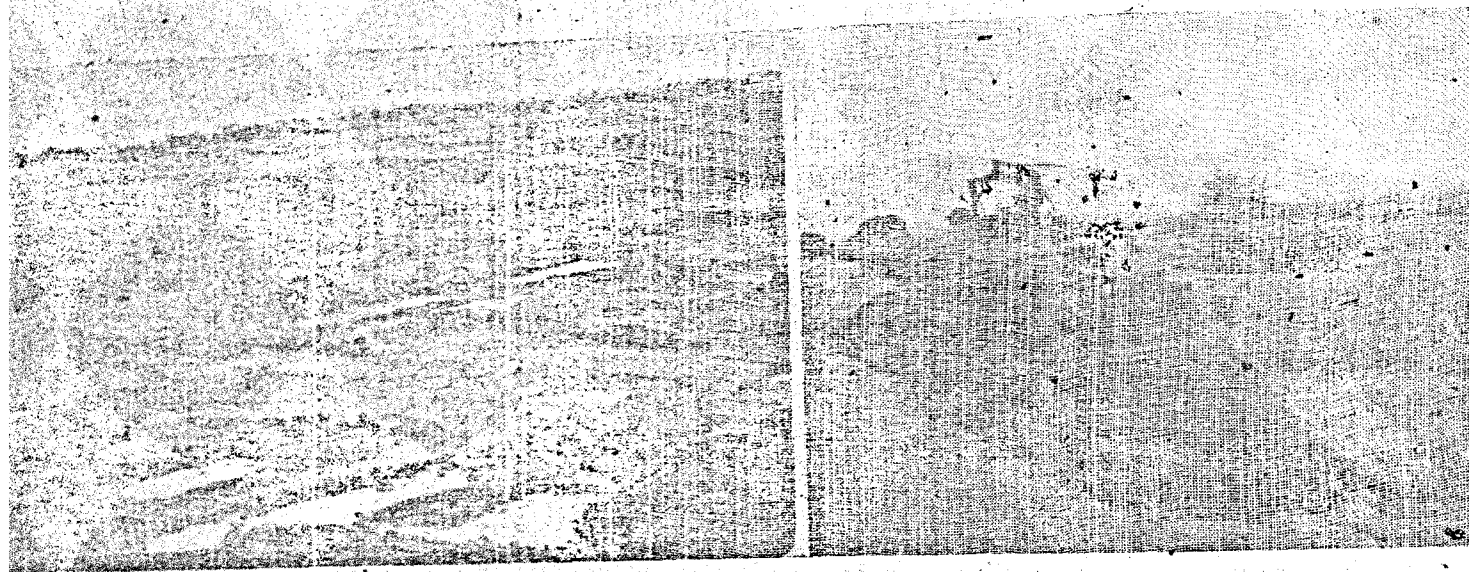
1945-46—Rs. 3,556; 1946-47—Rs. 4,078; 1947-48—Rs. 2,333 and 1948-49—Rs. 1,498.

A school for the Harijans was started on 15th August 1943. A building named after Kasturba was built in 1944-45 at a cost of Rs. 500 which was contributed by the villagers by way of free labour and free materials. There are at present three standards and a single teacher. There are 33 pupils in the school. The school was converted into an "Aided School" from 1st April 1949.

Tannery and Sheet Metal Work

The Seva Mandir has in view proposals for starting a tannery which would help to improve leather goods industry and to provide a more remunerative occupation for the Harijans engaged in leather goods industry. The Centre had deputed two Harijan boys for training in the manufacture of buckets, suit cases and trunks. A unit for the production of buckets, suit cases and trunks has been started. So far Rs. 3,000 worth of goods has been manufactured. A subsidy of Rs. 250 was given to the Centre under the Cottage Industries Scheme. The Seva Mandir has been selected by the Government for the formation of a production cum training centre in sheet metal work. The products of this Centre are popular.

There is no dispensary or hospital in the village. The Seva Mandir has so far purchased medicine worth Rs. 800 and distributed them free to the villagers. Quinine is got free from the Health department. Ordinary and routine



Bulldozer at work—Digging a 200"×160"×4" tank (left) and filling up a gully to reclaim 15 acres of waste land (right)

cases are treated locally by giving medicines. Serious cases are sent to Kambadur for treatment.

Village sanitation is another activity undertaken by the Seva Mandir. It employs 12 sweepers who sweep the streets once in two days. The village panchayat has granted the Mandir only Rs. 20 and the balance of cost is borne by the Centre. A child welfare centre has been opened. The Seva Mandir is arranging for the free distribution of oil, milk, etc., for children.

Schools and Library

Besides running a Harijan School at the main village, the Mandir is running an aided school at Obuganapalli under the name Netaji Aided School. A separate building is under construction and nearing completion. There are at present 35 students in the school, of whom eight are Harijans and six Sugalis. There are three standards in the school.

The Seva Mandir is conducting adult schools. Originally these schools were run during summer alone. Now the schools are open throughout the year during nights. Training is given for a couple of hours in the nights by the teachers in the Centres. The cost of books, slates, lighting, etc., is borne by the Seva Mandir. Within a period of six months, some of the adults have been able to come up to the level of 1st standard.

The Seva Mandir maintains a free-reading room and library. There are at present 350 volumes. The Centre was given a Library grant of Rs. 250 by Government last year. The books are taken by villagers for reading and

nearly 30 people are taking advantage of the library. In the free reading room, quite a few journals are available.

Stud Bull and Grain Depot

Attempts were made to plant mulberry trees, but this has not been successful, as the climate is not suitable. Tree-planting and other activities are proposed to be taken up in due course. Since last year Government have placed a stud-bull at the disposal of the Seva Mandir. It has done 10 to 12 services so far. The services are free and the entire cost of the maintenance of the bull is at present borne by the Seva Mandir. When the use of the bull is popularised, the Centre may collect some levy for the services.

The Centre operates a cheap grain depot for the last four years and distributes controlled articles and food-grains to the villagers equitably. This depot, which is very popular, also distributes sugar, kerosene, etc.

The Seva Mandir is keen on checking the growth of illicit distillation and is ever vigilant in assisting the preventive staff. The Centre is doing its best to wean the villagers from the drink evil, and it gives them occupation and recreation. The Centre maintains a Radio. It has also built a Radio House spending nearly Rs. 1,500 over the building, installation of the Radio, etc.

The work done by the Seva Mandir so far is very useful and praiseworthy. The Centre got a grant of Rs. 2,050 under the Pirkas Development Scheme.

CEMENT CONCRETE ROADS

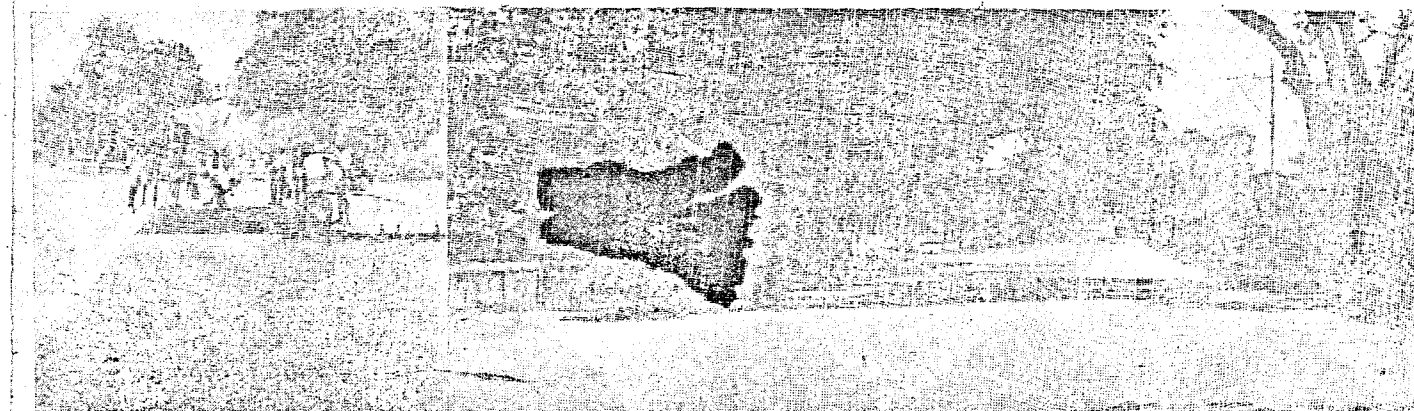


Cement-concreting Chittoor-Kurnool Road (work in progress)

Cement Concrete Road, Tirumushi-Sathiavedu Road near Tiruvellore (finished work)



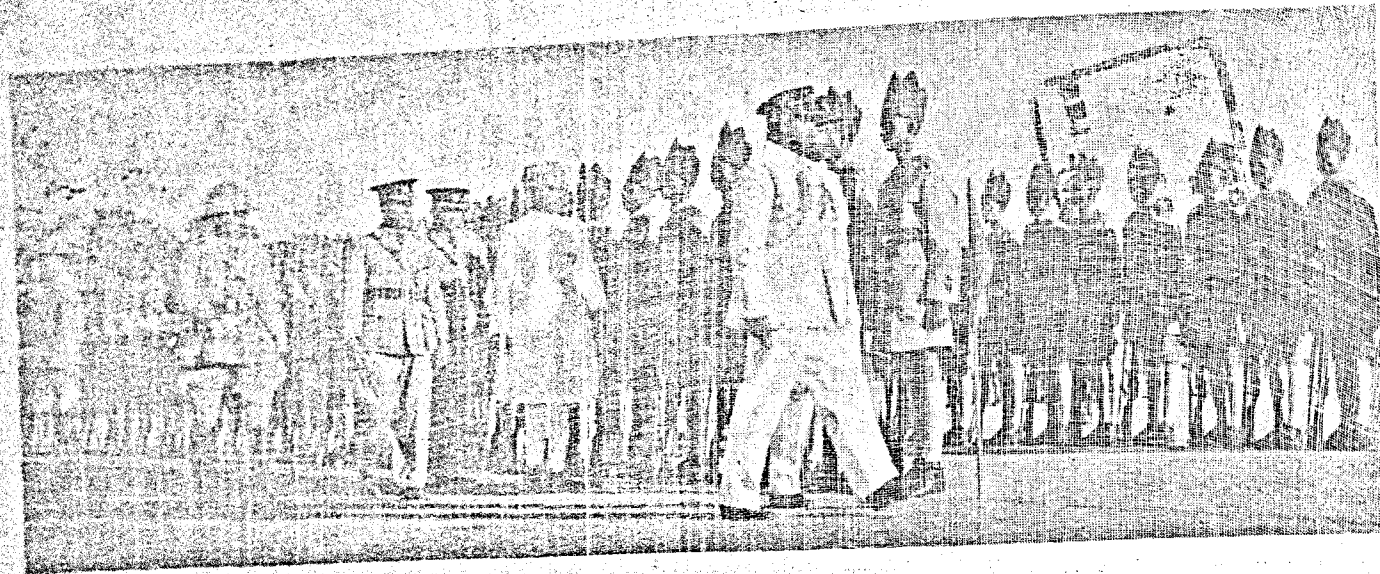
Creeways (Cement Concrete Tracks) on Kancheepuram-Wandiwash Road: (left) work in progress and (right) the finished work



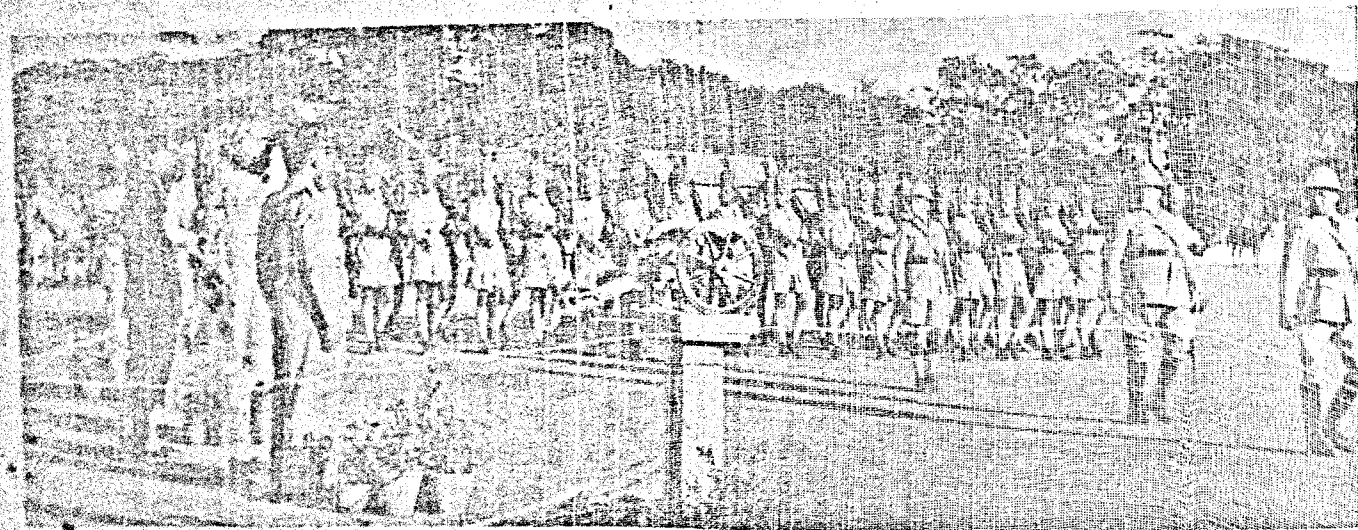
Conphalt Surfacing (Asphaltic Concrete at the centre with Cement Concrete Haunches) near Madras on Great Southern Trunk Road: (left) work in progress and (right) the finished work

Registered No. M-4767

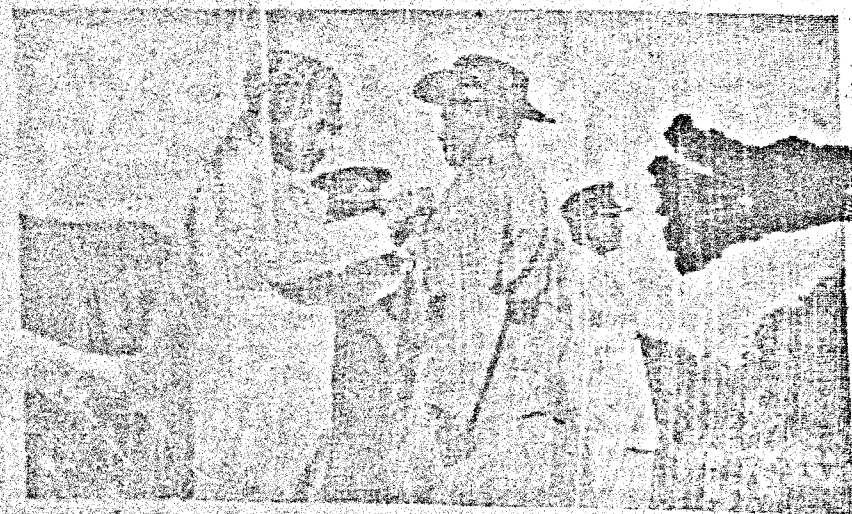
POLICE PARADE



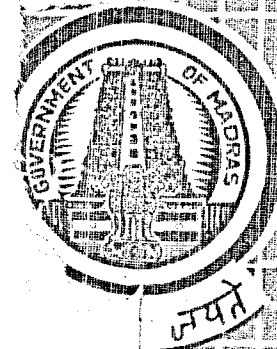
H.E. the Governor of Madras inspects the Guard of Honour



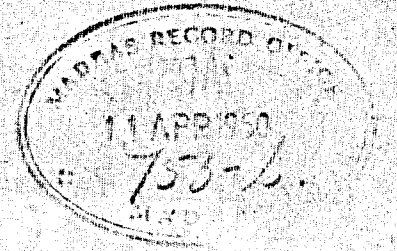
Taking the salute at the March Past



H.E. the Governor decorates a gallant officer.



MADRAS INFORMATION



OL. IV. NO. 4
MADRAS
APRIL
1950

Price, As. 3

THE DEVIL AT ITS WORK The Calcutta Mail Disaster

Above: The overturned streamlined Canadian engine

Above: Bogies telescoped in the smash

Above: Crane at work, clearing the line
Right: Capitalized bogies in awry disarray

Left: Twisted steel and broken woodwork

On March 3, 1950, the Calcutta Mail was derailed at Sulturpet. Six persons were killed and over 90 injured. Sabotage by subversive elements is suspected to have caused the tragedy

Madras Information

Published every month by the Director of Information and Publicity
Fort St. George

Vol. IV, No. 4

"WE SEEK TO SERVE AND NOT TO COMPETE"

April 1950

NATIONAL SAVINGS FOR WELFARE STATE

H.E. the Governor's Appeal

To win the battle on the economic front, "the ammunition has to be supplied by means of all possible savings, because savings widely invested constitute the capital out of which we are to finance all our plans for a Welfare State," declared H.E. the Maharaja of Bhavnagar, Governor of Madras, in the course of a radio talk broadcast on the eve of National Savings Week. Appealing for savings by all classes of all people and investment in National Savings Certificates, His Excellency observed: "By buying these certificates you would be safeguarding your future and the future of your family and will be helping the public and the Government to fight inflation and to finance all those various schemes which are necessary to build our Welfare State in India."

H.E. the Governor said: You have heard a good deal in the last few days of the new Republic in which we live and of the political freedom that we have won. But our infant Republic has yet to win the battle on the economic front, without which our political freedom would be meaningless. The task before the people of this country, and before their Governments, both in the Centre and in the State, is an immense one. Millions of our countrymen live on the border line of starvation. Diseases, some of the most deadly in the world, prey upon our population. There is an appalling degree of illiteracy. Our industries are still in the stage of their childhood.

It is to overcome these obstacles that we are waging now our battle on the economic front. Our aims, if we analyse them, are the simplest: To improve by every means in our power the standard of living of our masses, to give them more food, better clothing, better housing, better health and better education. For the attainment of this higher standard of living, there is a great need for the expansion of all our social services. There is an equally great need for many projects of irrigation, of electricity, of industries, for the production of food and cloth, and all manner of useful articles. All these services require a very large capital expenditure. But the aftermath of the war, the problem of refugees that has followed our independence, our food crisis aggravated in this State, especially by the cyclone and the successive failures of the monsoon, have all conspired to unsettle the economy of the country.

As our Prime Minister said some time ago, our national emergency is such now that our economy has to be placed on a war footing. Our battle has to be fought by increased production in our factories, in our mines and in our industrial concerns. The ammunition has to be supplied by means of all possible savings, because savings widely

invested constitute the capital out of which we are to finance all our plans for a Welfare State and for providing that higher standard of living in all spheres which I mentioned just now. You would have heard of many of these projects.

Wealth and the People

In our own State, we have great schemes for irrigation, for increasing the output of electricity and supplying it to our villages and for the improvement of our industries. All these require capital, and for the bulk of this capital formation, the country has to depend upon private saving and investment. In the old days, our capital flowed from different sources. There was in the first place an influx of foreign capital into India; secondly, the pattern of distribution of income was different from what it is to-day. But the wealthier classes of those days are gradually disappearing and our national income is distributed on a broader basis. We can no longer depend on the support of a wealthy few to provide the capital we want. We have got to appeal now to every citizen in this country. We are not, however, generally a spendthrift nation, and that is a national quality of great value.

So our appeal is not confined to the rich or to the middle classes only. It is addressed to all the citizens of this Republic, for, it is as a whole nation that we have to save more, to spend less and to invest our savings so that our future welfare may be built on solid foundations and this vicious circle of rising costs and decline in industrial production, which we term "inflation", may be stopped.

Our means of savings are very easy. The National Savings Scheme, which was first introduced in 1943, has

(Continued on page 41)

Railway Budget: Rs. 14 Crores Surplus for 1950-51

Financial Results at a Glance (Surplus)

1943-49	Rs. 19.98 crores (Actuals)
1949-50	Rs. 11.02 crores (Anticipated)
1950-51	Rs. 14.01 crores (Anticipated)

A surplus of Rs. 14 crores in 1950-51 was forecast by the Hon'ble Sri N. Gopalaswami Ayyangar, Minister for Railways and Transport, in presenting the Railway Budget for 1950-51 in the Parliament of India. The surplus for the current year is now estimated at Rs. 11.02 crores against the Budget anticipation of Rs. 9.44 crores.

Railways have made a remarkable recovery in their working and are moving rapidly towards the attainment and maintenance of a progressive standard of operative efficiency and public service. The drive for the betterment of amenities available to the travelling public is being continued with the utmost vigour, work has commenced in the new factory for the manufacture of locomotives in India, the arrangements for establishing a factory for the manufacture of all-steel welded passenger coaches are well forward and the conditions of railway labour have been ameliorated and the relations between Railway Management and Railway Labour have entered on a new phase of cordiality and mutual co-operation.

A locomotive imported from England



The Revised Convention for regulating relations between general and railway finances which comes into effect from 1950-51, was a great step forward in the development of the Railway Financial Policy and enabled the Government to take up development projects in the Budget year which, otherwise, it would have been impossible to do. However, it is not the intention of the Separation Convention to make any alteration in the existing ways and means arrangements of Government, as they were calculated to serve the larger interests of the country.

Ten States Lines covering a route mileage of over 6,500 will come under the control and management of the Centre with effect from 1st April 1950, as a result of the Federal Financial Integration.

Financial Results

The total gross traffic receipts were now expected to be 225.15 crores as against 210 crores anticipated in the Budget estimate. This increase is almost entirely due to improvement in goods earnings, as a result of better wagon turn-round and improved loadings. Partly as a result of stricter control over expenditure and partly of stringent measures introduced to ease the ways and means position of the Government, it has been found possible to reduce the ordinary working expenses from 159.03 crores provided in the Budget to 158 crores.

The principles of the Revised Convention have been applied in the current year to the extent possible, and an adjustment of Rs. 15 crores has been made from Capital and Depreciation Reserve Fund to Revenue in the accounts of this year. The net surplus after adjustments is estimated at 11.02 crores as against 9.4 crores anticipated last year. Out of the surplus, a sum of 7 crores will be contributed to General Revenues against the Budget figure of 4.7 crores. The balance of 4.02 crores will be added to the Depreciation Reserve Fund.

As regards the Budget year 1950-51, there are several indeterminate and unstable factors to be taken into account. The Budget estimate of gross receipts from Indian Government Railways has, therefore, been placed at 215.50 crores or about Rs. 9.65 crores less than the revised estimate of the current year and the receipts from the States Lines which will come under the Centre with effect from 1st April 1950, are estimated at another 17 crores, thus bringing up the total gross receipts of Indian Railways to 232.50 crores. The working expenses estimate has been placed at Rs. 156.01 crores for Indian Government Railways which is Rs. 1.99 crores less than the revised requirements of the current year and at Rs. 10.58 crores for the States Lines.

In terms of the Revised Convention, General Revenues have to be paid a dividend of 4 per cent on the Capital-charge and a sum of Rs. 31.85 crores has been provided in the Budget on this account, including 2.57 crores for the States Lines. The surplus for the coming year is estimated at Rs. 14.01 crores which is proposed to be distributed as follows: Railway Development Fund—Rs. 10 crores, Railway Reserve Fund—Rs. 2.01 crores and Depreciation Reserve Fund—Rs. 2.00 crores.



Passenger guides answer queries, assist women travellers to catch their trains, and generally help them to enjoy Railway amenities

Works Expenditure

In view of the present economic situation and the difficult ways and means position of the Government, the Capital programme has been curtailed so as to include only projects which are considered necessary in the national interest. The allotment for the current year covering Rolling Stock and Machinery Programmes and Open Line Works has been curtailed to Rs. 55.60 crores against Rs. 62.35 crores provided in the Budget. The provision for the Assam Rail Link and the Locomotive Manufacturing Works at Chittaranjan has not, however, been disturbed. The provision for other works has been so adjusted as not to interfere with operational efficiency or the programme of providing amenities to the travelling public. In fact, the provision for Passenger amenities has been increased by Rs. 25 lakhs to Rs. 1.75 crores. The Capital programme for the next year provides for Rs. 39.75 crores for the Indian Railway including the States Lines. In addition, Rs. 6 crores are provided for works to be financed from the Development Fund. Rs. 150 lakhs have been allotted for the completion of the Assam Rail Link and Rs. 423 lakhs for the Locomotive Manufacturing Works at Chittaranjan.

Reserves

It is anticipated that the Depreciation Reserve Fund will close with a balance of Rs. 104.77 crores and the Railway Reserve Fund which will be renamed the Revenue

Reserve Fund, will have a closing balance of Rs. 10.41 crores on the 31st March 1951. The Betterment Fund will be merged with the new Development Fund constituted as a result of the revised Separation Convention to be used for financing expenditure in passenger amenities, labour welfare and on projects which although unremunerative, are necessary. The closing balance of this fund at the end of the Budget year will be Rs. 19.03 crores. As would be apparent from these figures, there has been a steady strengthening of the reserves.

Rolling Stock Position

The power position has improved very considerably in recent months; 447 broad gauge and 51 metre gauge locomotives have been received during the period between Partition and 31st January 1950. Delivery of another 209 broad gauge, 156 metre gauge and 20 narrow gauge locomotives is expected to be completed in the course of the current year. Special steps have also been taken to secure the spares necessary to keep the existing locomotives in efficient operation and thus avoid the adverse effects of the suspension of the normal replacement programme in the coming year. A technical aid agreement has been entered into with the Locomotive Manufacturing Company of Great Britain for the manufacture of locomotives at Chittaranjan. Under this agreement, the Company will make available advice, technicians and skilled supervisory

TRANSPORT

staff for service at Chittaranjan and will also provide facilities for the training of the required number of Indian technicians in the United Kingdom. The target of production at Chittaranjan which has been agreed on will be three locomotives in the calendar year 1950, 33 in 1951, 45 in 1952, 66 in 1953 and 90 in 1954. At the end of five years, we would be turning out locomotives entirely of Indian manufacture and the annual production will be of the order of 120 locomotives.

The wagon position on the broad gauge is a great deal easier, but that on the metre gauge is not so satisfactory. In view of the financial stringency, the purchase of about 1,000 metre gauge wagons only has been provided for in the Budget. As regards coaching stock, with a view to relieve overcrowding in passenger trains, 350 coaches are now on order out of which 50 have been delivered; 407 coaches have been provided for in the Budget year out of which 50 will be from Messrs. Schlieren of Switzerland, to a design which provides wider seats, more leg-room, better lighting, wash-basins, mirrors and insulation against heat. The remaining coaches will be obtained partly from Messrs. Hindustan Aircraft, Limited, and partly from the Railway Workshops.

Passenger Traffic

The passenger miles are up by 2.73 per cent on the broad gauge and by 1.39 per cent on the metre gauge as compared with the corresponding figures for the last year. Four per cent more train miles have been run on the broad gauge and metre gauge passenger services. There has been a considerable improvement in the punctuality of trains. The percentage of trains not losing time on the different railways varied from 53.4 to 86.5 in November 1948, whereas during 1949 the percentages were from 61.1 to 91.9.

Some improvement, however, has been made by the introduction of 127 new trains and extension of 88 existing trains. Express trains for Class III passengers only, called "Janata Express" have been introduced on the E.I., E.P., G.I.P., B.B. and C.I., S.I. and O.T. Railways between important places.

A five-year plan for more passenger amenities with a minimum provision of Rs. 3 crores a year will commence working from the year 1950-51 and the Railway Administrations have been asked to make forward planning in order that the amount allotted may be fully utilised.

Electric Locomotives and Trains



Goods Traffic

The Railways' increased capacity to handle traffic is proved by the fact that the net ton miles carried during 1949 are 19.6 per cent and 16.4 per cent more than in 1948 on the broad gauge and metre gauge systems respectively. Goods train miles run are 19 per cent more on the broad gauge and 9 per cent more on the metre gauge as compared with the previous year. The freight awaiting despatch on the broad gauge in November 1949 was less than half a day's loading against two days' loading in November 1948. The turn-round of wagons had improved to 10.87 days in November 1949 against 12.97 days in the corresponding month of the previous year. The tonnage lifted in the first nine months of the current year was 15.5 per cent more than that was moved in the corresponding period of 1948-49.

As a result of an intensive drive initiated on 1st January 1949 for the settlement of claims for compensation for goods lost or damaged, a substantial improvement has been achieved. There were no less than 163,425 unsettled claims cases on 1st January 1949 but within eight months the figures were brought down to 64,959, representing only three months intake of the new claims. A publicity campaign launched on a countrywide basis to seek the co-operation of the public in improving the standard of packing, labelling and marking of consignments has also assisted in reducing the number of fresh claims preferred which numbered 249,460 in the first eight months of 1949-50 compared to 421,840 in the corresponding period of 1948-49.

Transfer of Permits for Buses and Lorries

The Government have issued instructions to transport authorities to sanction freely but in conformity with the provisions of the Motor Vehicles Act and the rules applications for transfer of permits of buses and lorries made to them jointly by the transferer and transferee before 31st March 1950, and to dispose of all such applications before the end of April 1950. Instances have come to the notice of the Government of the original owner of a motor vehicle who having sold his vehicle has been unable for various reasons to obtain the sanction of the transport authorities for the transfer of the permits to the purchaser.

As it is necessary that the permits should always be in the name of the actual owner of the vehicle and benami transactions are eliminated, the Government have decided to give the owners of vehicles in all cases of genuine and bona fide transfer an opportunity to get the transfer approved by the transport authorities before the date specified above.

Leprosy Patient

Further to their Order dated March 17, 1941, prohibiting the use of the term "Leper" in all Government documents, the Government have directed that the use of the word "Leper" and its equivalents in other languages should be scrupulously avoided and that the term "Leprosy Patient" should be used instead. Similarly the terms "Leprosy Hospital," "Leprosy Asylum," and "Leprosy Sanatorium" should be used, instead of the terms "Leper Hospital," "Leper Asylum," and "Leper Sanatorium" respectively.

India's Self-sufficiency Plan

The India Government Food Self-sufficiency Plan is concerned primarily with feeding the present population according to the current standards of consumption, and for providing food, according to existing standards, for the gradual increase in population, without resorting to imports after 1951.

The schemes under the Food Production Campaign should, therefore, be considered as remedies for an existing crisis judged by standards of consumption which prevail to-day. Therefore, the only measures which can suitably be taken are those which would produce quick results which are also permanent. It is because of the limited objective of stopping imports that the emphasis is on the production of cereals.

Although before the war India was an importer of rice, mostly from Burma, the food problem became acute when imports suddenly stopped with the Japanese occupation of Burma. It has been one of the foremost Indian problems since 1943. In the same year, the Government of India launched the "Grow More Food Campaign", which in its early stages consisted of a number of *ad hoc* schemes, designed to increase food production by intensive cultivation and diversion of acreage from cash crops to food crops.

The Grow More Food Campaign, however, was not placed on a planned footing until 1947 when definite targets were fixed for additional food production in each Province and the States as a whole. The total targets for the five-year plan were three million tons for the Provinces and one million tons for the States. The five-year plan was expected to be completed by the end of 1951-52.

Revised Food Production Plan

Meanwhile, the partition of the country and the increasing food imports have involved a huge drain on the country's foreign exchange resources. The Government of India has realised that it would mean the economic ruin of India to allow such huge imports of foodgrains to continue much longer.

The Prime Minister, therefore, declared last year that foodgrain imports must be stopped by the end of 1951 crop season, i.e., crops sown by the end of 1951 and self-sufficiency achieved by that date. A revised plan of food production was accordingly prepared by the Central Ministry of Agriculture in consultation with the State Governments. Taking 1947-48 as the base year, it has been estimated that at the existing level of nutrition the deficit in 1952 would be between 4.5 and 5 million tons.

Aids to Better Farming

To meet this deficit, which is roughly 10 per cent of the country's total production, the Government of India have carefully considered various schemes for increasing food production. In view of the emergency before the country, such schemes must of necessity be of short duration. The yield of foodgrains in India is low as compared with yields in China and Japan, not to mention the various European and American countries. The quickest method of increasing production in India is, therefore, to increase the yield per acre by employing better farming methods.

These can be broadly divided into two main categories, permanent and recurring. The permanent improvements are those which result in an increase of yield per acre for a number of years. They are mainly: (a) minor irrigation works, and (b) land improvements works. Recurring improvements are those which have to be continued and intensified from year to year so as to achieve a progressive increase in yield per acre. These recurring schemes relate mainly to: (a) production and distribution of improved seeds, (b) application of chemical fertilisers and green manuring, (c) composting of farmyard manure and town refuse and its application to the soil, and (d) plant protection.

New Targets

The quantity of additional production to be achieved by employing one or more of these intensive cultivation practices has been fixed for the States, after their respective Governments have had the opportunity of assessing their capacity for the increase of food production. These targets are, of course, based on the assumption that the amount of money, men and essential materials required for their programme of food production will be available in full.

Thus targets have been prepared in respect of each of the *kharif* and *rabi* seasons until the end of 1951. By their very nature these are tentative and will require revision and readjustment. For example, a good monsoon might produce better results from intensive cultivation practices than in another year. Similarly, a curtailment in funds both at the Centre and in the States might, in a year of financial stringency like the present, result in a reduction of the quantum of financial assistance for the farmers, as well as of the necessary staff and establishment for increasing the production of food. In view of these extraneous factors, it is not possible to forecast with exactitude what quantities of additional foodgrains would be produced in a given year on the intensive cultivation programme.

Reclamation of Waste Land

The reclamation and cultivation of waste lands is another aspect of the food production programme. In the Central Indian regions of Uttar Pradesh, Madhya Pradesh, Madhya Bharat and Vindya Pradesh especially, there are large areas of weed-infested land which can be made productive by tractor cultivation. Here land can be reclaimed on an extensive scale. The initial experience gained in mechanised land reclamation in the Ganga Khadir area of Uttar Pradesh and in the Saugor and Hoshangabad Districts of Madhya Pradesh has been promising. This work will continue with the aid of 375 heavy reclamation tractors which are being imported from the U.S.A.

Thus by a programme of intensive cultivation by the extension of the cropped area in the various States, it is expected to produce the additional food required. Deficits have been carefully assessed and detailed plans prepared to meet them. The gap between production and consumption is not unbridgeable.

Self-sufficiency in Rice

The production of food crops in India such as rice, millets and pulses is far below the normal requirements of her population. Huge sums of money, especially during the past two years, were being spent to make up the deficits. But in order to achieve self-sufficiency in this sphere, within the shortest time possible, the Government of India have decided that by the end of 1951 all imports of food-grains should stop. The Agricultural Department has set up targets for production, following various lines of improvement to achieve self-sufficiency in rice as far as Madras is concerned. The need of the hour is, therefore, mobilisation of all resources and the co-operation of all interested in agriculture of the country and its welfare to achieve this self-sufficiency.

Among the foodcrops, rice plays the major role and its surety compared to other millets has led the Government to take up schemes in areas with assured water-supplies, to step up its production.

Increasing the Crop

There are three obvious ways of increasing the total output of any crop: (i) by extension of the area, (ii) by increased production per acre and (iii) prevention of wastes during the several stages of the crop growth including those in the preparation of the product for consumption. It is found that there is no sure way of bringing fresh area under cultivation of rice, but it should be possible that under wells, shorter duration of paddy strains could be cultivated by lifts and this would add its quota to the production.

Well Subsidy Scheme

The Government have enlarged their well subsidy scheme by which a cultivator who grows some foodcrop will be able to get half the amount as subsidy and half the amount as loan. This should be availed of by as many cultivators as possible. Again, for certain flooded areas and saline areas on which rice crops are not secure, there are some special varieties with the Agricultural Department. This would enable to bring some more area under paddy cultivation with better yields also.

The Engineering Department is also busy in improving drainage and this will also help to use some more area. But the most successful and surest way is to increase the yield per acre. No doubt "season" is a greater determining factor of yield, but on the more secure areas such as the delta and minor projects, efforts in intensive cultivation should give us the desired results to a great extent.

Use of Improved Strains

The cleanest and therefore the best method is the use of improved strains that are developed by the Agricultural Department. A scheme of speeding up the production of seed distribution has been just put on hand. Full details concerning these strains are given in Villagers' Calendars, but any further information required on them will be most readily supplied by the Paddy Specialist or the District Agricultural Officer in the districts or the Agricultural Demonstrator in the taluks. It is observed that at least half a lakh tons of more rice could be produced if all the areas,

with assured water-supply, grow improved seed. Influential and rich cultivators should co-operate with the Government to spread the use of improved seed and exchange it with the produce of needy ryots. This will be really an act of highest service of the country.

Green Leaf Manuring

It has been found that green leaf manuring is most efficacious for paddy and anything up to 20 per cent higher yield is got by 5,000 lb. application of leaves. It should be possible in these assured places to raise green manure crops such as sunnhemp, pillipesara, daincha, wild indigo and sesbania depending upon the interval between paddy crop and paddy crop. Where facilities are somewhat lacking to raise green manures on the land itself, planting of quick growing shrubs like glyricidia in all odd places, wide channel bunds, fences, etc., would give us some leaf manure, to serve as basal dressing. Use of cakes, of any kind, and ammonium sulphate or phosphate is very beneficial. It may not be possible to have large margins of profit by the application of these. Such of the cultivators who could afford them should apply if the return should cover the cost.

Loans free of interest are freely given for purchase of manures and seeds and every needy cultivator must avail of this facility. The sale of phosphatic manures is being subsidised by 50 per cent by the Government.

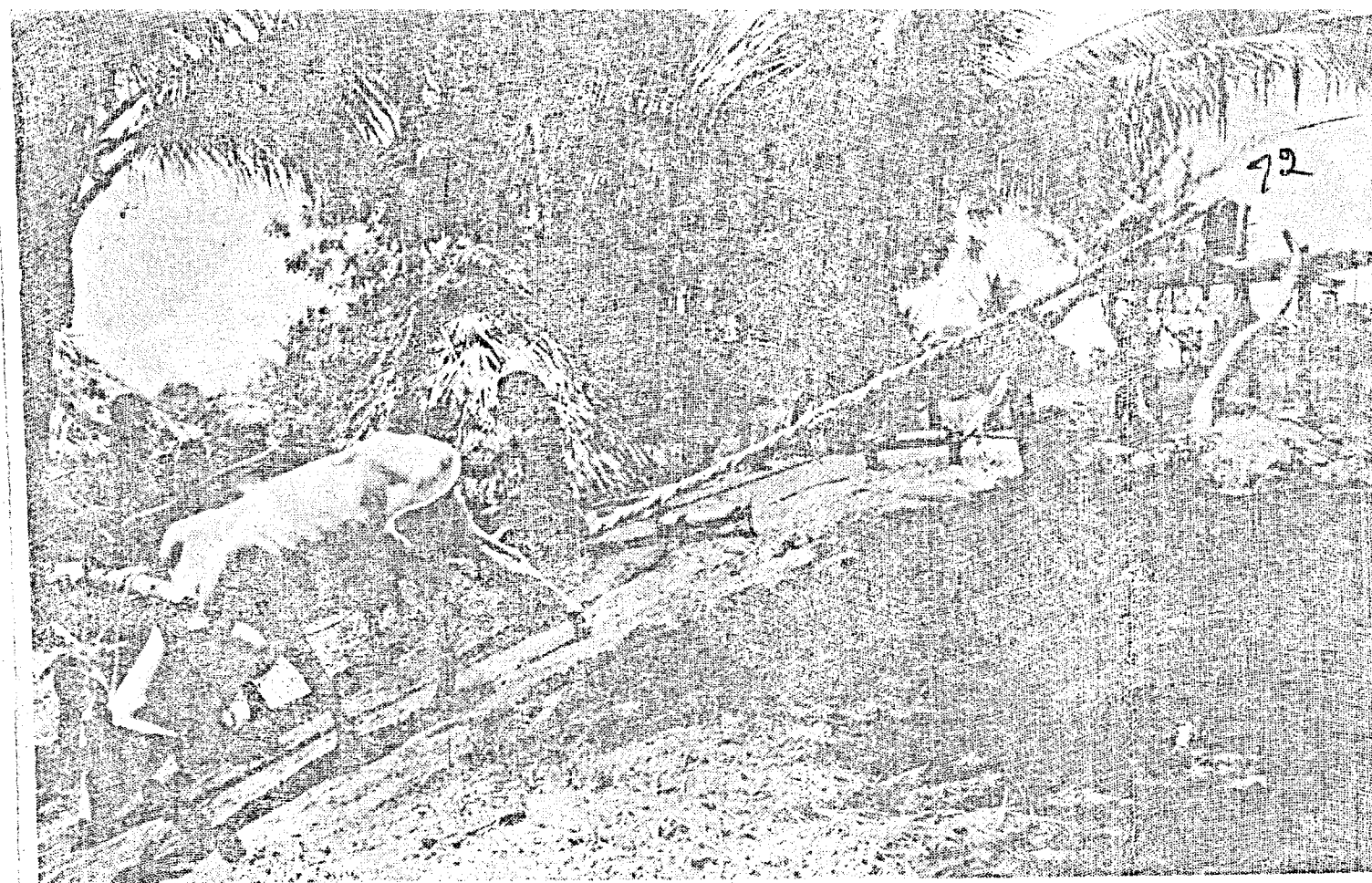
Proper Cultivation

Proper tillage, clean cultivation and proper use of water for irrigation purposes do really promote better growth of rice and give higher yields. Do not plant your crop wide apart in bunches as is common in some parts. Sow thin and plant close instead of sowing thick and planting wide.

For southern areas where blast is a common disease, affecting Nellore Samba and other varieties, the Paddy Division has evolved varieties such as Co. 25 Sirumani and Molokolukulu 2202. These are more resistant to this fell disease and are also higher yielding with good quality of rice. These strains should therefore be used in such blast-stricken areas and losses saved. There are two Plant Protection Assistants in every District Headquarters and their help may be sought when any pest or disease appears in your tract. If everyone puts his shoulder to the wheel, it should be possible to bring about at least a ten per cent increase in rice production.

Colouring of Oils, Fats and Grams Prohibited

The Government have ordered the following amendments to the Madras Prevention of Adulteration Rules, 1932. No person shall add any artificial colouring matter to any fat or oil intended for sale, including hydrogenated vegetable products, but excluding butter, and no person shall sell any such fat or oil to which such addition has been made. No person shall add any artificial colouring matter to Bengalgram, redgram, dhall, lentil and peas, and no person shall sell any such article to which such addition has been made.



Oxen drawing water from well for irrigation purposes. In this type of well, the oxen must climb backwards up the slope to the wellhead and have to be specially trained for the job

Increasing Production By Minor Irrigation Works

Better seeds, more manure and scientific methods of cultivation play their part in increasing crop yield, but without adequate and timely supply of water, these cannot produce effective results. In any scheme for increasing food production, therefore, the provision for irrigation facilities is of prime importance.

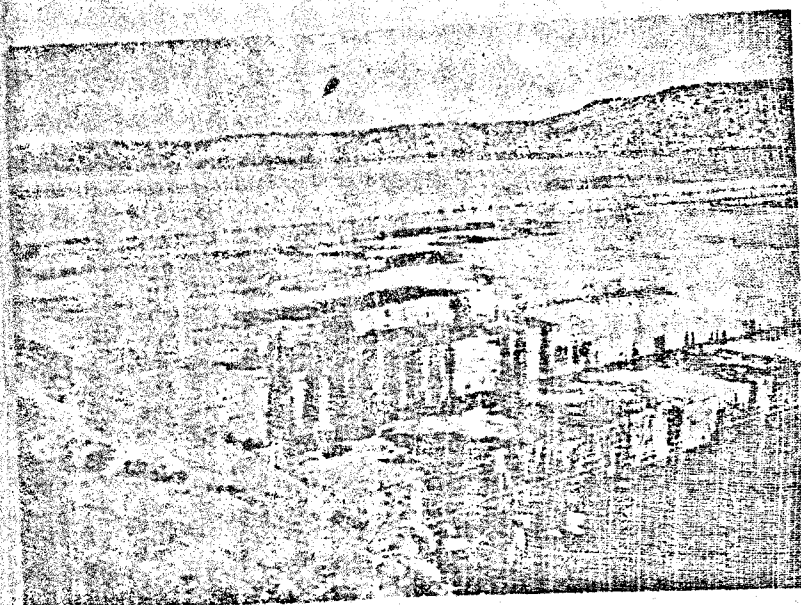
India leads the world in irrigation and despite the fact that a large part of the best irrigated area has gone over to Pakistan as a result of partition, India still has about 47 million acres of irrigated land. Of this acreage about 17 millions are irrigated by canals and the rest by surface percolation wells, tanks, tubewells, etc. But this area, though considerable, represents only about one-fifth of the total area under crops; the need for extension of irrigation facilities is thus imperative, to avoid dependence on rainfall which is at times fitful.

The multi-purpose irrigation projects undertaken by the Government of India will no doubt add considerably to the food production of the country, but their completion will take time. The requirements of the food self-sufficiency plan, however, which aims at stoppage of imports by 1951, make it essential that there should be an immediate increase in the area under irrigation. The present plan, therefore, places greater emphasis on the quicker and simpler means of increasing irrigation facilities by the construction and repair of surface wells and tanks.

Surface Wells

The number of wells constructed between 1943 and 1947—the first phase of the G.M.F. campaign—was 71,844. During 1947-48 and 1948-49, new wells sunk numbered 25,920 and 33,553 respectively. For construction of wells, elaborate equipment as in the case of tubewells is not necessary and the expenditure involved is within the means of small farmers. On an average, a well can irrigate about five acres of land yielding roughly an extra ton of produce. Irrigation by surface wells has, however, a disadvantage compared to canal irrigation. Water from surface wells has no fertilising property, whereas canal water carries a fertilising silt and distributes it in the irrigated fields. To obtain the maximum benefit out of well water, application of manure to a considerable extent is, therefore, necessary.

Lifting of water from wells is done by various means in different parts of the country. Besides lifting by hand or animal power, electrically driven engines are used in certain parts of the country, while in others a Persian wheel is the common means. The Central Government has recently recommended to the States an improved type of Persian wheel which is likely to effect considerable saving in bullock-power. In Western and Southern India, a "moat" consisting of a leather sack tied at both ends with a rope is the usual means of lifting water.

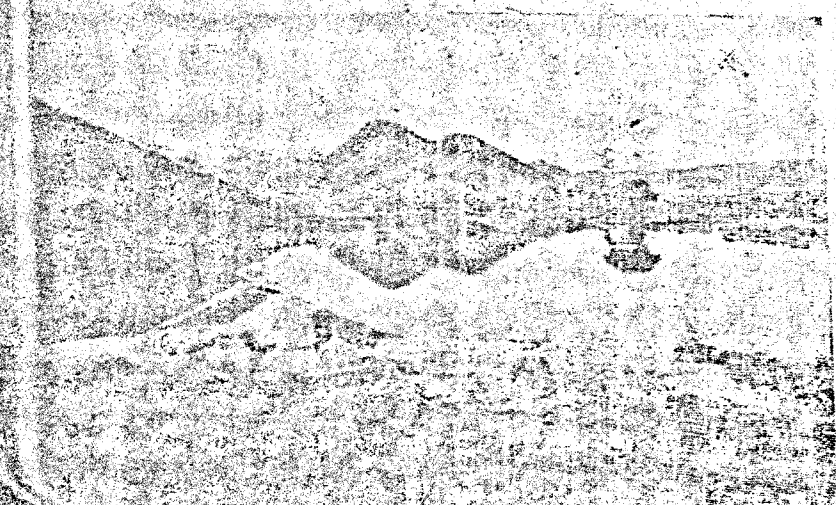


The rear view of the surplus water of the Poleru Reservoir at Oach. The scheme costs Rs. 4.3 lakhs and serves an ayatut of 450 acres

Increased Provision in Budget

It will be unfair to the Public Works Department to take the allegation that the so-called development plans of the Public Works Department still remain on paper, at its face value. The total irrigation budget for 1945-46, the year in which we took over the administration, was only Rs. 97 lakhs. Since then we have made rapidly increasing provisions under this head. For 1946-47 it was Rs. 155 lakhs, for 1947-48 Rs. 254 lakhs, for 1948-49 Rs. 336 lakhs and for the year just ending Rs. 597 lakhs. For the coming year we have provided for Rs. 712 lakhs. The increase in outlay for 1950-51 is over seven times that for 1945-46 and even assuming that money has depreciated since 1946, nobody dare say that Government

The Melia Tank of Gattipeda, Markapur Taluk, restored at a cost of Rs. 1,00,000, irrigates 300 acres



have been merely marking time. Irrigation development cannot be planned and executed overnight. Before designing a new project, Engineers have to take detailed gaugings of flows to make sure that there is water available in a normal year. Nothing is gained by impounding in a new reservoir the waters that would otherwise flow into an old one.

One who observes the mighty Cauvery from the Bhavani Bridge, may not realise that that river is almost fully tapped on its course to the sea and touches salt water only in a few years of plentiful rains. The people of North Arcot complain that their district is being neglected, but investigation has revealed that far from there being surplus water in this district, the available resources in a normal year can hardly sustain the existing irrigation. Any new project in this district can only be at the expense of existing riparian rights. There is therefore a limit to which we can hustle engineers to expedite new projects, because they will not be responsible for wastage of funds, if they are not allowed time to take gaugings and satisfy themselves that the apparent flow in a tract is really surplus to its existing needs.

Policy and Planning

A new danger also seems to be threatening our irrigation policy. Till recently our economists and post-war planners were thinking of development projects in terms of thousands of crores of rupees. A plea for lack of funds was then liable to be misunderstood as lack of determination. Some little delay in the investigation of Ramapadasagar was attributed by even responsible people as due to political obstruction and lack of vision. That tide has since turned and we are now being driven headlong in the reverse direction. In the present mood of our economists, even schemes costing just a few lakhs are suspect, as symptoms of extravagance and administrative inexperience. We should guard ourselves from being carried off our feet by this reactionary tide. After considerable concentration and effort, we have during the past three years, geared up an executive machine capable of investing about Rs. 15 crores per year on irrigation and electricity development.

In a country short of food and short of motive power, our continued existence as a civilised nation depends on the execution of a modest development programme of at least this size. Irrigation and electricity schemes can be financed largely with borrowed money, because they give a direct return which can be set off towards interest charges on the borrowings. Our financiers are no doubt alarmed by the depression sighted at the corner, but fortunately that depression has not turned the corner yet.

It should therefore be possible for the people of this State to find, from out of their savings, about Rs. 15 crores each year for productive investments. After all, this sum is about equal to the excise revenue which the Government have voluntarily foregone for the benefit of the people and therefore the raising of that sum, not as a tax, but as a loan, should not present insuperable difficulties. No doubt we have schemes ready, or almost ready for several hundred crores, but for the present, let us build our hopes in modesty, on what is within our sure reach, with some measure of co-operation and goodwill from the people of this State.

Chemical Fertilisers and Compost

India's total requirements of nitrogen is estimated at two million tons per annum for all crops. In terms of sulphate of ammonia, this is approximately 9.7 million tons. In addition, the requirements of phosphates are substantial and so will be an increasing factor in balanced manuring in keeping with the progress of nitrogen utilisation. So far, the areas deficient in phosphate are very well defined but its use will not be restricted to these areas, as in keeping with world opinion balanced fertilising is necessary to ensure maximum yields.

Consideration in a large way need not be given to the use of potash as, generally speaking, Indian soils are adequate in this respect. There are, however, crops which require additional supplies, either from the point of view of increased production or the improvement of quality.

The potentialities for compost production are enormous and are estimated to be in the region of 310 million tons (urban wastes 10 million tons, village wastes 100 million tons, and dry cowdung 200 million tons) if adequate, alternate fuel is available. According to the Chief Biochemist, Ministry of Agriculture, New Delhi, the quantity of nitrogen actually applied to the soil annually as cowdung was estimated in January 1949 to be only 0.75 million tons.

Oil cakes supplied a further 6.04 million tons nitrogen. In 1947, the actual compost production was estimated at 1-2 per cent of the potential and although the production has increased considerably in 1948-49, it is still far short of requirements and much spade work and propaganda is necessary to ensure that cultivators take an intelligent interest in the advancement of this most essential form of organic matter.

Balanced Manuring

The primary requirement of Indian soils is nitrogen and while it will continue to give the largest additional yields for the quantity applied, it must not be assumed that it is the only element required for increased crop production. Nitrogen in the inorganic or organic form is equally effective but, applied in the organic form, the actual matter returned to the soil contains nutrients other than nitrogen in the inorganic form; nitrogen is the only nutrient applied and it is clear that balanced manuring is important. The amount of nitrogen, P. O., or potash removed by any crop from the soil is known. In actual practice, the return of similar quantities does not always have the same building up effect.

There are minor elements which play a very large and important part in the production of crops; but, at the present stage of agricultural development in India, it is safe to assume that so long as phosphates and potash are applied in addition to nitrogen in the quantities which experimental work already concluded denotes is necessary for particular areas, then we have a fairly safe form of balanced manuring which can be expected, always assuming climatic and other factors are constant, to produce the increased yields.

Assuming that there are about 60 acres of arable acreage where a satisfactory water supply can be assured and where chemical fertilisers can be applied at the minimum rate of 16 lb. nitrogen (80 lb. sulphate of ammonia)

per acre, approximately two million tons of sulphate of ammonia will be required. For the present, and with the restricted nitrogen availability in the world, India will not be able to import her full requirements of 0.5 million tons of fertilisers during this year. Indigenous production is estimated at 75,000 tons.

Need for Organic Manures

It must be remembered that these supplies will not be available for food crops alone but also will have to be apportioned for the following:—

- (1) Tea, rubber and other plantation crops, to increase exports and reduce imports.
- (2) Jute and cotton, to be independent of Pakistan.
- (3) Sugarcane, to remove the shortage of this commodity.

The aim at the present time should be to increase the production of organic manures within the country. This production is unlikely to be sufficient to provide an adequate application for food crops alone without taking into consideration the plantation and other crops mentioned above, and until production is on a substantially greater scale, conservation of the present available supplies should be undertaken. In other words, instead of heavy regular applications of organic matter, the available supplies should be spread over the largest possible acreage and supplemented by additions of inorganic fertilisers.

A bumper crop of sugarcane was raised in plot manured with compost



IRRIGATION

Tanks

Another useful source of irrigation is tanks. Many such tanks exist throughout the country, especially in South India, which store rain water of the surrounding areas and can be used during the dry season. These tanks, however, require constant attention as they are likely to be silted with the soil brought by the rain water. Unfortunately, not enough attention has been paid in the past to the renovation and excavation of these tanks.

Renovation of these tanks has been undertaken as a part of the Grow More Food Campaign and the Government of India are subsidising State Governments by sharing half of the uneconomic part of the expenditure involved.

Tubewells

Tube wells are another important source of irrigation in areas where sub-soil water in large quantities exists. At present, State-owned tubewells with capacity of $1\frac{1}{2}$ cusecs equivalent to 53,000 gallons of water per hour exist in U.P. and Bihar. The tubewells in U.P., numbering about

8

MADRAS INFORMATION

2,200 are supplied with electricity from the Gang a Canal Hydro-Electric Grid and each one can irrigate about 400 acres. The cost of each tubewell comes to about Rs. 40,000.

A proposal for the construction of 3,000 more State-owned tubewells in the Uttar Pradesh, Bihar and Punjab, within the next two years, is under consideration of the Government of India and the State Governments.

Flood Irrigation

Other methods of irrigation practised in India are Flood Irrigation and Inundation Irrigation. These systems, mostly in vogue in Egypt, consist in diverting the monsoon flood water of a river to surrounding lands. The flood water spreads on the land, soaks it thoroughly and the moisture retained in the soil allows the cultivation of a winter season crop which would otherwise not be possible. The flood water being charged heavily with fertilising silt from the rivers, dispenses with the use of manures to a certain extent, and also allows regular annual cropping of the same piece of land without any harmful effect on the soil.

Progress of Project

For the people of this State, who have lived through the ages on the bounty of our monsoons, the development of irrigation is a matter of vital interest and concern. Recently, in the course of a radio talk, Sri Bhakthavatsalam, Minister for Public Works, reviewed the progress of irrigation projects in Madras State, and pointed out how what has been accomplished so far "though little, is by no means insignificant".

Irrigation projects on our major water courses take up several years for execution and cost a good deal of money. The Godavari and Krishna Deltas and the Cauvery-Mettur Project took decades to mature. It is true that substantial results can be achieved only by well-integrated river-valley schemes, but a development plan based exclusively on this principle gives but little satisfaction to the people living away from these rivers. The Government had, therefore, drawn up a short-term programme consisting of about three to four hundred small schemes spread over the whole State costing in all about Rs. 6 to 7 crores. In selecting schemes under this programme, special weightage is being given to areas neglected in the past and liable to frequent famines. So far 124 schemes have been sanctioned from out of this programme at an aggregate cost of Rs. 243 lakhs.

The Tigaluru and the Kollimagulavagu reservoirs in Kurnool, the Pennar-Kumudavathi in Anantapur, the Kanchikunthi Tank in Cuddapah, the Badathalav Scheme and the Jeddarpalayam Bed Regulator in Salem, the Savaleppeti Tank in Tirunelveli, the Cheyyar Anicut and the Neman Tank surplus channel in Chingleput, the Gavatripuzha and Vandithode Anicuts in Malabar, the Shiyar Anicut in South Kanara are just a few of them already sanctioned.

Five year Programme

Investigation is proceeding on another 200 small schemes of this kind and are being sanctioned at the rate of five

or six at each of the fortnightly meetings of the Cabinet Sub-Committee on Food Production. Execution is proceeding briskly on practically all the 184 sanctioned schemes and an expenditure of about Rs. 70 lakhs have already been incurred on them. Adequate provision has been made in the present Budget to pursue the programme with maximum vigour. When this five-year programme is completed in another two or three years, we shall have brought under new irrigation about a quarter of a million acres of barren land.

The five-year programme outlined above is only a small part of our irrigation programme. We can hope to achieve self-sufficiency in food only if the large volumes of water now running to waste in our river systems are put to adequate use. Reservoirs capable of irrigating ten to fifty thousand acres can be constructed on our smaller rivers in many districts. A list of about 24 schemes costing about Rs. 30 crores have been drawn up and are now being investigated vigorously. Such of them as are ready are also being sanctioned for execution.

Important Schemes

The Lower Bhavani Project in Coimbatore District estimated to cost Rs. 879 lakhs and sanctioned in 1947, is the most important of them. An amount of Rs. 82 lakhs has been spent on this project during this financial year, taking the total investment to Rs. 112 lakhs. A provision of Rs. 103 lakhs is now being made for expenditure in the next year on this project. At the present rate of progress, it will be completed by 1952 as scheduled and will bring under irrigation two lakhs of acres of land.

Other schemes in this list which have been sanctioned are the Malampuzha Project for Malabar costing Rs. 380 lakhs, the Rallapad Scheme for Nellore costing Rs. 53 lakhs, the Upper Pennar for Anantapur costing Rs. 84 lakhs and certain drainage schemes in the Cauvery and Krishna

IRRIGATION

9

MADRAS INFORMATION

Deltas. An amount of Rs. 52 lakhs has been actually spent on them this year and substantial sums are being provided for them in the ensuing Budget.

The investigation of many other schemes in this list is nearing completion, as for example the Sathanur for North and South Arcots, the Manimuthar for Tirunelveli, the Vaigai for Mathurai, the Kattalai and Pullambadi for Tiruchirappalli, the Araniar for Chingleput, the Atteru for Nellore, the Bhairavanitippa for Bellary, the Gandikotta for Cuddapah, the Vamsadhara for Visakhapatnam and a few others. It is the intention of the Government to sanction them all, as and when ready and provision has been made in next year's Budget for a lump-sum appropriation of Rs. 60 lakhs to meet the expenditure on new projects.

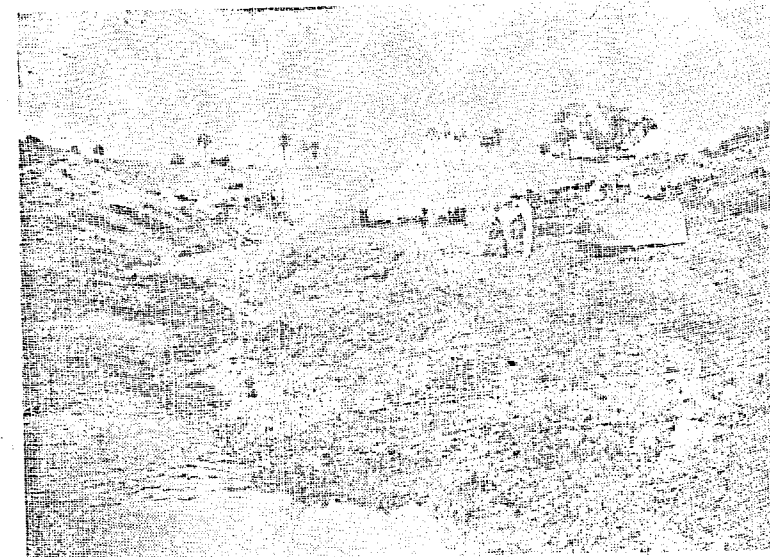
River Valley Projects

Of the major multi-purpose river valley projects, we have already under execution the Tungabhadra Project which is expected to bring under irrigation three lakhs of acres in Bellary and Kurnool districts and also develop about 30,000 K.Ws. of power. This Project is a joint endeavour with Hyderabad and the ultimate cost to this Government will be about Rs. 25 crores including the hydro-electric portion. Difficulties with Hyderabad have been resolved in conferences at top-level and rapid progress is now being made; an expenditure of Rs. 234 lakhs was incurred this year, alone taking the total investment to about Rs. 600 lakhs. A provision of Rs. 287 lakhs is being made for next year and at the present rate of progress, it is hoped that the project will be completed towards the end of 1952. This will be a very material achievement in the development of long-suffering Rayalseema.

We are also making rapid progress in the investigation of the giant multi-purpose project on the Krishna by which we may hope in the not distant future, to harness that mighty river for the development of vast areas in Cuddapah, Kurnool, Nellore, Chingleput and South Arcot districts, besides ensuring a second crop in the Krishna Delta. Our resources may not be adequate to finance this project, but it is hoped that the Central Government will be in a position to render the necessary assistance by the time the investigation is completed. In the meanwhile, the Engineers are preparing plans and estimates proposing development in stages, each stage bringing in some return on the capital, so that the colossal outlay is spread over a long period of years.

Renovation of Tanks

The decision taken by the Government of India recently to stop imports of foodgrains from 1952 has given a new urgency to our short-term programme of food production. We have inherited from our ancestors about 35,000 irrigation tanks which constitute a fair portion of our real wealth. By gradual silting through the ages, and long neglect, very many of them are unable to sustain the ayacuts registered under them. Even in a year of normal rainfall, there is a scramble for water, because the tanks have lost much of their original capacity and flood waters, which should have been conserved in them, drain off to the sea. Therefore, the quickest way of growing more food is to renovate these tanks and restore to them their lost capacities. This is particularly so in respect of the



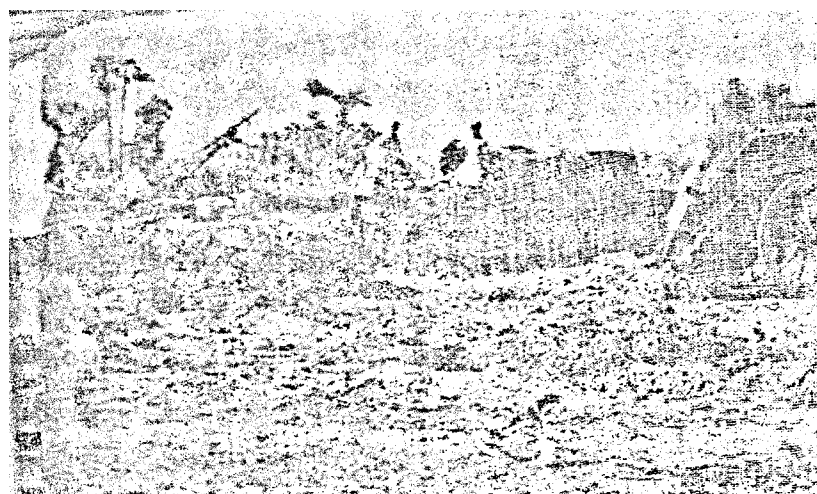
Reclaiming the Ravulacheruvu Lagoon in Kurnool district : Tractor at work, clearing the earth in front of the under-tunnel across the Kurnool-Cuddapah canal

large number of zamindari tanks which are now being taken over by the Government.

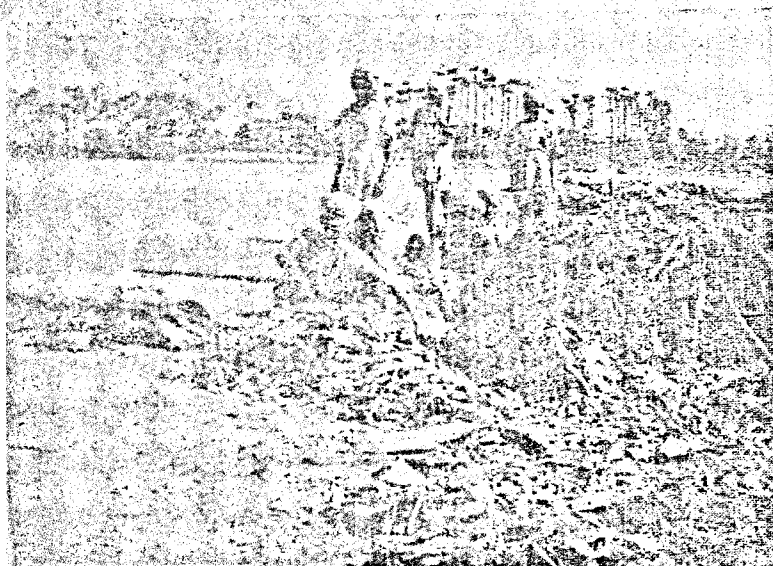
A scheme has been drawn up in rough detail for this purpose and a start has already been made in a few districts. The object of this scheme is not to bring new lands under irrigation, but merely to ensure adequate supply to lands already registered as wet. The scheme which is estimated to cost about Rs. 10 crores, will be spread over five or more years and is expected to relieve our rice deficit to the extent of at least one and a half lakhs of tons. A large staff comprising seven Public Works Department divisions have been sanctioned for this purpose and they have started operations in many districts. An expenditure of Rs. 35 lakhs is being incurred this year and Rs. 85 lakhs have been provided for in the ensuing year. It only remains for the people to be benefited by this scheme to co-operate with the officers charged with the execution and make it a complete success.

Ravulacheruvu Lagoon : View of Canal over the under-tunnel; this project will irrigate 700 acres by July 1950





Rubbish is unloaded from lorries and carts



Mechanical coolies remove stones, glass pieces and other foreign matter from the sweepings



Heaps are formed with layers of sweepings and refuse

Compost Manufacture in Karur Municipality

In the Karur Municipality sweepings and refuse are collected from the Municipal limits and are utilised for composting in the two compost grounds. In Karur Town with its population of 28,000 a daily collection of 874 cubic feet of sweepings and 180 cubic feet of excremental refuse are collected and utilised for manufacturing compost. Sweepings contain more than 30 to 40 per cent green leaves and are in a moist condition.

Heap system of compost by the Bangalore process is being adopted in Karur Municipality. In compost grounds, the subsoil region is very rocky and it is reported that digging of trenches is not possible and the digging charges are very high in the Karur centre; hence heap system is being adopted with good results. In old heaps of six months duration it was noted that decomposition was in a perfect condition and the contents of heaps were odourless and in a powdery condition. In a few recently formed heaps temperature was recorded on 4th January 1950 in two heaps. It was found to be 40°C to 50°C after two and three weeks respectively from the date of completion of composting. It will be possible to get high temperature conditions within the heaps by having rubbish wall all round in each heap.

Compost is very popular in the Karur centre. The Karur Co-operative Marketing Society, an organisation of the local agriculturists, purchases the compost from the Municipality and distributes it to ryots who are within a radius of five miles of Karur Town. These ryots register their applications in a priority register and take delivery of the compost on allotment. About 600 acres of paddy and sugarcane areas are being treated with this manure and the yield is reported to be about 20 per cent more in the compost-treated plots.

The total quantity of compost manufactured on a daily basis works out to 1,000 cubic feet or 20 tons or in other words $\frac{20 \times 2}{3} = 13$ tons of ripe compost made available daily, working out to $13 \times 365 = 4,745$ tons for manuring 800 acres of paddy in the Karur centre.

Mechanical Screen for Compost Making

A mechanically operated screen for sieving town refuse, capable of turning out a ton of finished compost at a cost of Rs. 1-7-0 only has been designed at the Indian Agricultural Research Institute, New Delhi. The screen is worked in conjunction with a tractor operated loader which can discharge approximately 10 tons of material per hour into the screen. An elevator which enables the finished material to be loaded direct into waiting trucks or carts has been fixed with the screen so that at none of the stages of operation, manual labour would be necessary to handle the refuse.

The mechanical screen which is an improvement on the hand-operated screen designed previously at the Institute, needs only seven men to prepare six to seven tons of finished compost per hour. The new screen is now under fabrication and it is hoped to commence screening operations from the end of March or early in April.

Administration of Agricultural Department

The following are the salient features of the administration of the Agricultural Department for the fasli year 1948-49.

Agricultural Education.—During the year under report, there was a fall in the number of applications received for admission into the Agricultural Colleges at Coimbatore and Bapatla for B.Sc. (Ag.) Degree Course. A total number of 380 applications were received, as against 655 received in the previous year. Out of the 14 students who joined in the first year of the Agricultural Training School, Orathanad, 12 completed the course and went back to their farms. The Juvenile and Adult Labourers' School at Anakapalle, Samalkota, Coimbatore and Palur continued to function satisfactorily.

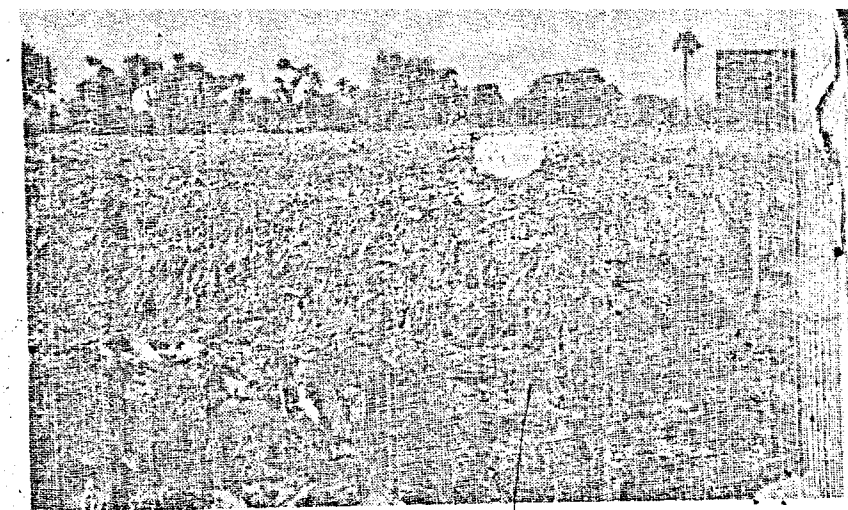
Grow More Food Campaign.—Preliminary arrangements for starting a scheme of soil and water conservation by contour bunding in Visakhapatnam and Ceded Districts were in progress. One hundred and fifty-two tractors of the Agricultural Department, which were distributed in the State during the year, brought 35,569 acres under cultivation, against a target of 40,000 acres, yielding 8,892 tons of food; 83 petrol pump sets and 11 oil engines were sold to the ryots; 1,446 electric pump sets were newly put into operation during the year. The additional food estimated to have been produced by the use of 266,700 feet of piping sold to ryots, is 2,676 tons. The total additional food produced through cultivation by all these mechanical means is estimated at 11,568 tons.

Research.—Research was conducted in the fields of Agricultural Chemistry, Plant Pathology, Agricultural Meteorology, Systematic Botany, and Cytogenetics.

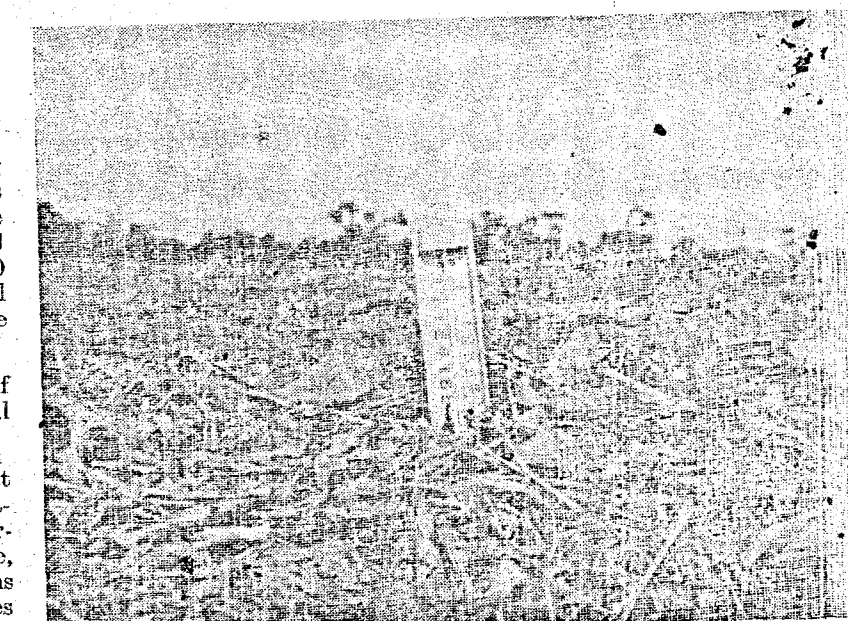
Crops.—Research work on paddy was carried out at the Government Agricultural Research Stations at Anakapalle, Samalkota, Maruteru, Buchireddipalem, Tirurkuppam, Palur, Aduthurai, Ambasamudram, Coimbatore, Pattambi and Mangalore. A total quantity of 320 tons of pure seed, sufficient to grow crop over 18,000 acres of primary seed farms was distributed from the several Research Stations. The work on the improvement of millets was carried out at the Headquarters Millet Stations at Coimbatore, Anakapalle, Guntur, Nandyal, Hagari, Siruguppa, Palur and Koilpatti. Research in sugarcane was carried out at Anakapalle and Gudiyattam under a scheme sanctioned by the Indian Central Sugarcane Committee. It was also conducted at Palur and Samalkota.

Manures.—In most of the Research Stations, growing of green manures became a part of the regular programme. Either green manure or green leaf manure was applied to most of the paddy area in the farms. An area of 117,970 acres of green manures was grown with the seed, supplied through the depots, comprising of kolinji, indigo, sunnhemp, pillipesara, dhaincha, and sesbania. During the year, 50,662 cattle manure pits were opened and 73,682 renovated.

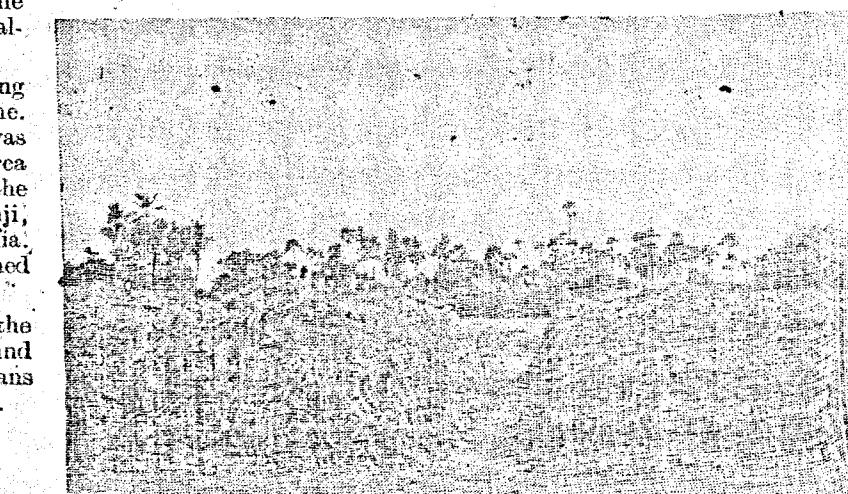
Loans.—A sum of Rs. 7,69,105 was disbursed to the ryots as interest-free loans for the purpose of manures and seeds. A sum of Rs. 30,792-8-0 was granted as loans to the ryots for the purchase of agricultural implements.



Compost heaps formed according to the Bangalore Process. Dates are carefully marked



Recording the temperature. The rise in temperature ensures that the pathogenic germs are completely killed



Firka Development.—Special attention was paid to the proper development of agriculture in 34 firkas and centres selected for intensive work.

Agricultural Engineering Branch.—Practical training classes in the handling and working of the various types of ploughs, tractors and bulldozers were conducted by the Service Engineers of the principal tractor manufacturers representatives at Madras, Bapatla and Coimbatore.

Finance.—The expenditure and receipts for the financial year 1948-49 were Rs. 126.96 lakhs and Rs. 20.69 lakhs as against Rs. 116.75 lakhs and Rs. 20.37 lakhs, respectively, in 1947-48.



Paddy crop harvested in a field where town compost was used as manure prior to transplantation.

Wheels remove ripe compost from trenches in bullock carts. Compost manure is odourless and easy to handle.



Safflower

A coarse, thistlelike plant cultivated for several thousand years in India, Iran and Egypt is receiving increased attention from farmers in the semi-arid areas of the Western United States. Called the safflower, its seed yields edible oil that has the useful characteristics of linseed oil. When ground into meal, the seed is valuable for livestock feed. In India the safflower is known as the kusuma.

Although first grown in the United States in 1925, the safflower remained virtually unknown until new varieties were developed. These varieties are more suitable for planting and harvesting by machine. Their oil content is as much as 50 per cent greater than that of previous varieties.

Safflower has been found especially adaptable to the "Great Plains" region of West-Central America, where wheat is the principal crop. Its advantage for American wheat farmers is that it can be planted and harvested with the same machines used for wheat. It also is planted and harvested at different times of the year than wheat, making it an important aid to the farmer practising crop rotation.

About 8,000,000 pounds of oil was produced from the 1949 safflower crop in the United States—only one per cent of the linseed oil production. According to the U.S. Department of Agriculture, however, safflower acreage in 1950 is expected to more than double that of 1949, and processing facilities are being expanded. Greater use of safflower as a source of livestock feed also is expected. Experiments indicate that safflower meal is comparable to soyabean meal in feeding value.

Coconut Nursery Scheme Sanctioned

The Government have sanctioned a scheme for the establishment of a Coconut Nursery at Marudur near Kulittalai in Tiruchirappalli District.

The object of the scheme, which has been approved by the Indian Central Coconut Committee, is to plant about 8,000 seednuts every year, which are expected to be sufficient to produce about 5,000 to 6,000 seedlings, for supply in Tiruchirappalli and neighbouring districts.

Cane Jaggery Control Order

The Government have issued the Madras Cane Jaggery (Movement) Control Order, 1950, which forbids the transport of cane jaggery from any place in the Madras State to any place outside it by rail, except under a general or a special permit issued by the Commissioner of Civil Supplies.

Compost Development Committee

The Government of Madras have appointed Sri A. K. D. Balarama Raja of Rajapalayam as a non-official member of the Provincial Compost Development Committee for another term of one year from 4th March 1950.

Wild Ducks : Paddy Pest

By SRI S. KANNAN, Agricultural Demonstrator, Kodawasal, Tanjore District

Whoever had occasion to tour the tail end of the Tanjavoór delta, must have noticed the havoc caused by the wild ducks, 'Anas crecca' (Siravi in Tamil), during the winter season. The cultivators keep awake the whole night, beating drums or whistling to drive the wild ducks, which swarm in hundreds, dropping into the paddy fields causing destruction on to the semi-ripe sheafs. These ducks are regular migrators from their haunts in interior lakes in the winter season, and their stay continues as long as the swamps and lagoons in the coastal areas of these parts have sufficient water and supply of cat-fish that breed in saline swamps. What attracts them most is the enormous multiplication of fish in these lagoons, and these fish in turn find large quantities of vegetable and other materials carried down by the rivers or by the drainage water, getting stagnated in the lagoons.

It is not the wild duck alone that makes this journey, the Pelican (*Pelican erythrorhynchos*) and the stork (*Ciconia ciconiformis*), and the flamingo (*Phoenicopterus rubes*) all migrate here, anxious to swallow the fish and other aquatic animals. But none of these is destructive to paddy. The lagoons on the sea-coast are shallow and wide and abound with mud and slush, with plenty of shrubs which give them shelter and hiding ground. During the day time, the lagoons are filled with these ducks and their play and noise is heard furlongs away and it is a pleasant sight to see thousands of these birds wallowing in the miry water, during the sunny hours. But at dusk, they swim to the low lying ground, flutter their wings and take to flight in batches, and the paddy crops in distant places, miles away are destroyed in no time.

Damage to Winter Crops

As the winter crops are about to become ripe, and are partly under water on account of rains, they are easily accessible to the beaks of these birds. As the crops do not uniformly mature to harvest them all together, the ducks find a rich pasture, by peeling the sheafs of paddy with their beaks, swallowing partly and pulling the rest to the water, where the fish are waiting to take their share of the spoil. Small landholders who solely depend upon a few acres, are ruined and apply for remission. They often find only a few grains while harvesting, and often they abandon the harvest altogether. Shooting down the birds is only partially effective, as they come in hundreds. Further, their movements are mostly during nights and hunters often miss their aim. Occasionally, during moonlight nights, in their marches, they mistake the white sandy grounds for a water spread, sweep down for settling and are killed.

Trapping the Birds

Fishermen in these areas move in these lagoons for catching these ducks, which fetch good price and duck-shooting is some times done. These fishermen, knowing the ways of these lagoons, spread framed nets on either side of these mounds, and keep them submerged in water. Long ropes are attached to the ends of these frames, and behind a distant shrub, the fishermen hide with lever peg

ready to drag the nets. Towards dusk, the birds land on these mounds, and at a given signal by the watcher, the rope is pulled over the lever and the nets on the either side close over the mound, and the birds are caught under the net. They are immediately rushed to the market which are often miles away, from where they are transported to other places.

However, these catches do not diminish their number, while the destruction caused to essential food crops continues to be really heavy. Attempts to use the lagoons either as paddy fields or as fish rearing stations, have not been contemplated; the difficulty of the ryots continues unabated, while very valuable fish is wasted, and the paddy crop is lost. Both the fish and the crop can be saved, if only these lagoons which dry during the months of July to September, are provided with water for irrigation and can be made to grow a *Kuruvai* crop, to be harvested before the rains come.

(Madras Agricultural Journal.)

Srikakulam

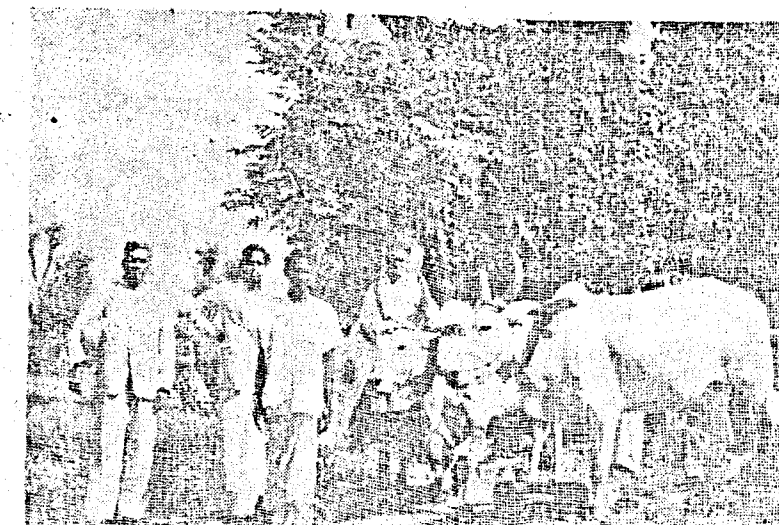
The Government have renamed the Municipality of Chicacole in Visakhapatnam District as the Municipality of Srikakulam.

Exemptions from Shops Act

The Government have exempted "all shops in the State of Madras, in which only the owner or the owner and undivided members of his family do all the business and no other persons are employed, from all the provisions of the Madras Shops and Establishments Act, 1947, for a period of one year".

All shops in the State of Madras, where the work of tanning raw hides and skins is carried on, have been permanently exempted from the provisions of Section 11 (1) of the Madras Shops and Establishments Act, 1947.

Officials and ryots enthuse over the use of compost manure.



The Sugalis of Kurnool

By SRI T. S. VIJAYENDRA RAO, Deputy Registrar of Co-operative Societies.

Sugalis, otherwise called Lambadis, are hereditary cowherds of Kurnool District. "Sugali" means good cowherd (*Su*-good, *Gali*, *Gaonli* cowherd). The Sugalis claim their descent from Gurkhas. "Gurkhas" means Gowra-kshakas, protectors of cows. Sugali customs and manners and their religious beliefs are akin to Gurkhas. It is also said that the term Lambady is derived from "Lavan", the Sanskrit word for salt. This tribe being the chief carriers of salt before the formation of roads and railways, the word "Lambady" was used for carrying this vital important necessity of life. With the advent of railways and roads, the need for "Bedari" (transport on bullocks) became unnecessary and the Sugali profession became unremunerative. Thus they were forced to settle in places where they found pasture for their cattle and they were obliged to eke out their livelihood in various ways such as agriculture and cooly work.

Sugalis are known by different names in different places. In Hyderabad State, Madhya Pradesh, Uttar Pradesh, Central India, Rajputana and Mysore they are called "Banjaras". In the districts of Madras State like North Arcot, Coimbatore, Kurnool, they are known as "Sugalis" while in the Telugu parts of Hyderabad State, and in the Carnatic



Sugali huts and their cattle

Cattle breeding forms the main occupation of Sugalis



Districts of Bombay State, they are known as "Lambadis". In Orissa and Jaipur Zamindaris, they are known as "Bairis". It is clear that each name indicates the economic pursuit of the Sugalis.

Expert Cattle Breeders

Kurnool District, being rich in forest wealth, gave them facilities to settle in places where they found good pasture and water for their cattle. Naturally cattle breeding formed an important occupation. Various factors enabled them to prove themselves experts in cattle breeding. Being breeders of cattle and having long association with the cattle trade, they have gained valuable experience in breeding and they are well acquainted with curative herbs. The Sugalis, reports the Linlithgow Commission on Agriculture, "possess a knowledge of cattle and they will prove useful allies to us for making better use of natural grazing of the country and they are the only members of the rural population who pay attention to cattle-breeding and understand the management of cattle".

The Sugalis have been living in forests from time immemorial in small groups scattered in huts called "Thandas". In Yerramalai Hills alone there are about thirty *thandas* scattered throughout the forest area of the western taluks of Kurnool District. The rigid forest laws increasing the grazing fees had driven them away from the forest area, and the exploitation of money-lenders who trade on their ignorance, illiteracy and expensive religious disputes were mainly responsible for their unprogressive condition. Many sold their cattle, while the rest oppressed by money-lenders, neglected their duties of improving the cattle wealth of this tract and took to cattle lifting, thieving and illicit distillation of arrack. Heavy drinking took hold of them.

Six Important Sects

The Sugali tribe is divided into six important sects: *Rajaputras* correspond to the Brahmins of Hindu society; they are strictly vegetarian, clean, highly religious and never take drink. Inter-marriages and inter-dining are prohibited.

Bhukias are agriculturists. They have ceased to be nomadic and become a settled community in Hyderabad State.

Navis are the barbers of the Lambadis, getting an annual grant from each *thanda*. They attend to the social functions at collective dinners and serve as cooks.

Dhalia is the pariah caste among the Lambadis. They are drum-beaters during funeral and marriage ceremonies. They must beg inside *thandas*, never outside. The tribe treats them as untouchables.

The *Bhats* boast of respectable antiquity. They have received high credentials from no less a historian than Todar as sacred and chivalrous. These members are treated as Muslims in Mysore State where they follow the Muslim faith. A Bhat is permitted to live in *thandas* and

even take food prepared by others; but no other sect in the tribe will dine with him. Their presence is necessary on all important occasions like marriages, settlement of disputes and festivals. When they sing the heroic achievements of the tribal ancestors, they receive rewards from the members of the *thandas*.

Jamgars are converts from other castes. Girls used to be kidnapped and admitted and married to the men of their tribe; these are the dregs of the society.

Each sect is divided into gothras and members of each tribe claim descent from a common ancestor and behave among themselves as brother and sisters. They have their own dialect akin to Hindi, mostly a corrupt mixture of the local language. In Madras State, they are classed as Hindus and treated as Vaishnavites, their God being Lord Krishna. Many also worship Sri Balaji. Among them have been religious reformers like Sri Hema Sadhu and Lokya Naik who preached cleanliness, change in the mode of dress, vegetarian diet, sexual abstinence and prohibition of toddy and arrack among the members of the tribe.

Women Are Gaily Dressed

The dress of the men is very simple, while those of the women are elaborate, gay and gaudy. It takes one full year to prepare a female robe and the women are experts in creating sequin effects by stitching glass beads to the dress in ornamental patterns. The women also wear horn-bangles of different designs.

Lambadis enjoy dancing and all their songs are in praise of Lord Krishna like the Gopis of Brindavan. Their dances are quaint and picturesque. The men beat drums in rhythmic harmony to the songs. The Holi festival is celebrated with dances and songs in all *thandas* for over a fortnight. Gaily attired in their sequined robes, the women go from village to village where they collect grain and money from the villagers with their dances and songs.

The names of the men sound dignified and those of the women fascinating. Typical names are Bhima Naik, Somala Naik, Ramji Naik and Sita Bai, Bili, Lakshmi. Though the Sugalis are short in stature, they are perfectly proportioned. The chiselled features of the women folk are particularly attractive. It is the woman of the house who does the brunt of the family chores, as going to the forest along with the herd, removing the dung, cleaning the stables and attending to the kitchen. At leisure she mends her garments and embroiders a new dress for the new year, the Holi festival. Of late the Sugalis are giving up old habits of unwashed state and are paying greater attention to personal cleanliness.

Highly Superstitious

The Sugalis are very superstitious and so strange judgments are common in their midst. To cite an example, in one of the *thandas* a little child died; it was a normal death due to some sickness. The superstitious Sugalis attributed the cause of the death to some black magic practised by an old lady of seventy in the *thanda*. An august assembly sat in panchayat for eight days at the expense of the family of the accused at a cost of nearly Rs. 2,000 with drinking, and decreed that the cows, landed property and other effects of the family of the accused be confiscated and sold. The panchayat also decreed that

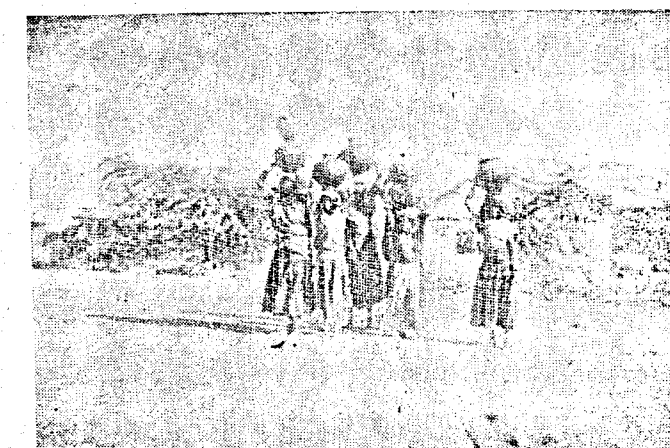
the family should be driven out of the *thanda* and the teeth of the old woman pulled out, so that no more black magic may be practised by her. The sentence was executed in full. In another instance, a husband had to abandon his faithful wife, the mother of two children, as the Sugali assembly charged her with practising black magic.

Religious disputes are many and money is squandered on these quarrels; this seems to be the main cause for the poor condition of the tribe. Marriages are very costly, the bride's price being paid mostly in cows. Marriages are performed as obtaining in any Hindu family. A man may marry two or more wives. It is peculiar to this tribe that if any elder brother dies, it is necessary for the elder brother's widow to wait till the younger brother attains age and then marry him.

The Sugalis are hard-working and intelligent but their social behaviour, their diet and their traditionally secluded ways of life are responsible for their degraded social life. Besides, most of them come under the Criminal Tribes Act. Though serious forms of crimes have disappeared, cattle lifting, grain stealing, etc., are committed in those *thandas* where economic conditions are bad.

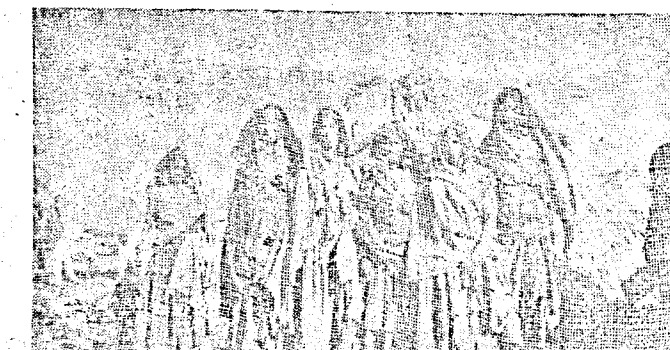
Uplift Work by Government

In Yerramalai Hills adjoining Panyam village, there are about eight *thandas* where Sugalis have about 7,000 head of cattle. A Co-operative Cattle Breeding Society was formed in 1940 for these *thandas* and the Sugalis are afforded all assistance. The Kurnool District Sugali Uplift



Women carrying water home

A bevy of Sugali belles



Association was formed in 1935; the Association has been trying to improve the social and economic conditions of these people in all ways. Recently the Government constituted a Welfare Committee with the following members:—

The Collector of Kurnool, Chairman; The Deputy Registrar of Co-operative Societies, Kurnool; The District Veterinary Officer, Kurnool; The District Forest Officers, Kurnool "East" and "West"; Dr. P. R. J. Sundaram,

Harijan Welfare Work

Moving for a grant of Rs. 88,31,000 under the head "Labour including Factories and Harijan Uplift," in the Madras Legislature, Sri B. Parameswaran, Minister for P.W.D. Development, reviewed the salient features of Harijan Uplift work in the State.

Out of the total demand of Rs. 88,31,000 under this head, the substantial sum of Rs. 63,86,600 is for expenditure on Harijan Uplift; besides, a sum of Rs. 28,80,500 is also provided for expenditure from the "Fund for Village Reconstruction and Harijan Uplift." On the whole a provision for expenditure of Rs. 92,67,100 is made for this year, marking an increase of over Rs. 10 lakhs over the last year's Revised Estimate.

The Government have been incurring a steadily increasing expenditure on the uplift of Harijans. While the Government spent only Rs. 8.78 lakhs in 1924-25 on this account, the expenditure has risen particularly during the last few years. In 1948-49 it was Rs. 63.87 lakhs. Having realised that educational advancement is the forerunner of all progress, they have paid special attention to the provision of educational facilities. While there were only 509 lower elementary labour schools with 500 teachers educating 14,500 pupils in 1924, there were 1,232 schools with 2,661 teachers, educating 87,224 pupils in 1949-50.

Again, against 281 scholarships involving an expenditure of Rs. 2,752 in 1924 there were 13,978 scholars receiving in all a sum of Rs. 5.4 lakhs during 1949-50. In the matter of boarding grants to hostels also, there has been an enormous increase in expenditure. While in the year 1924 it was only Rs. 3,580, it rose to the very large sum of Rs. 10,58,305 in 1948-49 which was distributed among 325 hostels. The Government are also running in addition

A Government school for Sugali children



Nandyal; Sri Badar Soma Naik, Sugaimetta; and Sri P. V. Hanumantha Rao, Secretary, Sugaimetta Co-operative Cattle Breeding Society Limited. The Deputy Registrar of Co-operative Societies, Kurnool, is the Secretary of the Committee.

To inculcate the thrift habit amongst the Sugalis, the Kurnool District Co-operative Central Bank was persuaded to supply Hundi boxes free to the Sugalis.

13 hostels on which they have spent no less than Rs. 1,39,520 during 1949-50.

Another large item of expenditure is the provision of midday meals which has been found to be absolutely necessary, if we are to spread and promote education among these poor illiterate masses. This scheme which was started in 1941, cost the Government Rs. 25,000 in 1943-44, for feeding 4,600 children. But in 1948-49 the number of pupils fed rose to 84,660 and the expenditure to as much as Rs. 11,53,500.

House-sites have been provided by the assignment of waste or poramboke lands at the disposal of the Government free of cost to landless Harijans or by acquiring private lands when suitable Government lands are not available. The Government have been meeting half the cost of acquisition of private lands, subject to certain maximum limits, the balance of the cost being recovered from the Harijans. But as it was found that no substantial progress had been made in this direction on account of the absolute poverty of the Harijans who were unable to pay even half the cost of the land and the deplorable conditions in which several of them were housed, this concession has now been liberalised by meeting from State funds the entire cost of acquisition of sites in the case of those who cannot afford to pay the cost.

In the matter of sinking wells in cheris, the Government have been providing funds, but as this provision has been very meagre, it has been directed that separate wells not provided for in the five-year plan of the Rural Water-supply Scheme should be provided in the Harijan cheris wherever necessary and that the expenditure on account of these wells should be met from the Rural Water-supply Fund.

In order to give a further impetus to the work and accelerate the pace of progress the Government have, on the advice of the Provincial Harijan Welfare Committee, constituted with effect from 1st April 1949 a separate Department of Harijan Welfare and they have appointed a retired Judge of the High Court of Judicature, Madras, as its first head, so that he may pay his undivided attention to the several problems confronting the Government to help them to attain their objectives speedily. To assist him in his work the Government have also appointed two experienced Deputy Collectors as Deputy Directors. And with the object of obtaining better and quicker results

GANDHIJI AND HARIJANS

"Throughout his life he thought of India in terms of the poor, the oppressed and the down-trodden. To save them from poverty was the mission of his life. He became one among the poor. He adopted their ways of dress and living, so that no one in this country can feel lowly. Untouchability which is the greatest blot on the society, appealed to his mind as the primary field for his work of social reform. He realised that untouchability was the greatest social injustice perpetrated by men of the so-called higher castes. His heart bled at the sight of even the elementary social rights being denied to them. He fought for the removal of untouchability and insisted upon the eradication of all distinctions based on caste, colour and creed. The social injustice of shutting out the untouchables from the places of worship made him realise the truth in the proverb "nearer the temple, farther from God". Perhaps he found greater truth in the converse of that proverb, "farther from the temple nearer to God", in his application to the untouchables. He saw in the untouchables divine beings most beloved to God. And so he called them Harijans, that is to say, people dearer and nearer to God, Hari. He preferred to be one among the Harijans and he lived as a Harijan. The Harijan cause was the most cherished of all causes that he worked for."

P. S. Kumaraswami Raja.

in the districts, the Government have also recently appointed Deputy Collectors in eight districts and senior Tahsildars in the remaining districts in place of the Deputy Tahsildars who were hitherto in charge of the Harijan Uplift work in each district.

The magnitude of this centuries old problem cannot be ignored. Many a previous attempt on the part of social reformers and religious leaders ended in failure. But it was left to Mahatma Gandhi, the Father of our Nation, to bring about a revolution which has touched the hearts of the masses to the quick and has roused their social consciousness to such an extent as to make untouchability a crime. By his Epic Fast, severe penance and mighty sacrifices he has performed a miracle in this as in many other things, whereby the foundations for building up a united nation and a stable State, were well and truly laid. We cannot afford to forget the central fact that all Harijan Welfare work means in its essence complete eradication of untouchability in all its forms.

It is not, as some imagine, the mere transformation of a depressed and suppressed class into a favoured class. While it is necessary for the society and the State to take in the first instance all steps to do away with the special difficulties and hardships to which they are subjected and to give them every encouragement and facility by which they will become full and equal sharers of all opportunities of life, it is certainly not the intention of the Government to treat them as a separate and distinct class or community for ever.

Therefore, all the work done and progress made should be measured not by the standard how far Harijans as a separate class have been elevated but by the test how far the Harijans and others are moving and mingling with each other without any distinction, so that they may ultimately merge into one homogenous society knowing no caste distinctions. The change that has come about in the consciousness of Caste Hindus in recent times has been appreciable and visible.

In this connection, one has only to recall the opposition of a few members of the Legislature to the Temple Entry Bill of the late Mr. M. C. Rajah about ten or twelve years ago and the present times; when not only the temples are open to all Harijans, but all the members of both the Legislatures without exception vie with one another

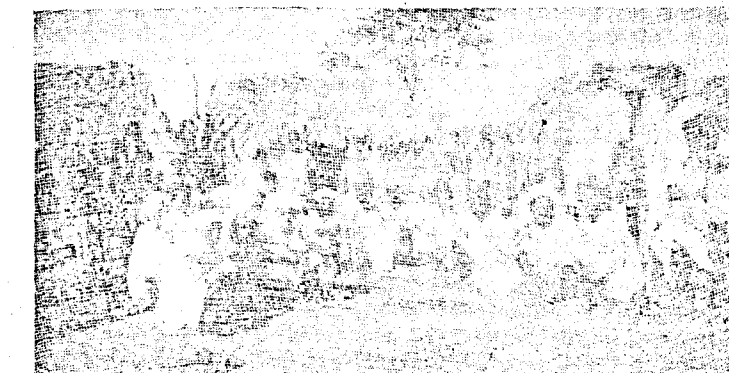
in espousing the cause of the Harijans. Even outside we cannot find any one worth the name openly justifying the social hardships or other disabilities of Harijans. Under such happy augury and promising circumstances, we can reasonably hope to reach our ultimate objective within a period of ten years.

Sri B. Parameswaran then referred to "the forces which are working close to us to disrupt the peace and tranquillity of our country" the forces of Communism in its particular relation to the Harijan community. The Communist Party seeks to sow the seeds of disruption in the vast multitude of depressed people scattered loosely over every village and township in the State. It is for the Caste Hindus and other non-Harijans to realise the importance and seriousness of this situation. That the history of India is a record of successive and successful invasions from outside the borders is nothing new. Invaders succeeded not because of their strength but because of the division and disunity among the people within its borders.

It is therefore for us to see that there is no division of our people through discontentment of one class caused by the tyranny of one class over the other, that there are no privileged and unprivileged classes, and that there are none favoured and unfavoured in the ordinary walks of our life. Communism by itself is foreign to the Indian people and Indian thought. It believes in a two-nation theory—the haves and have-nots.

(Continued on page 37)

A Sugali Assembly settling disputes



Pearl Banks in the Gulf of Mannar

By Sri K. CHIDAMBARAM, Assistant Director of Fisheries (Marine Biology)

From the days of Pliny in Rome, for over 2,000 years, the pearl fisheries in the Gulf of Mannar have been famous. Descriptions of the fishery are found in the ancient Tamil classics, and Greek and Roman tales of travel contain passing references to the pearl diving off the South Indian coast. As early as the first century A.D., the conduct of a pearl fishery in the Gulf of Mannar was described by a Greek author. In 1949, the Government of Madras conducted a comprehensive and intensive inspection of the pearl banks off Tuticorin with the object of studying the availability of pearl oysters in the different beds.

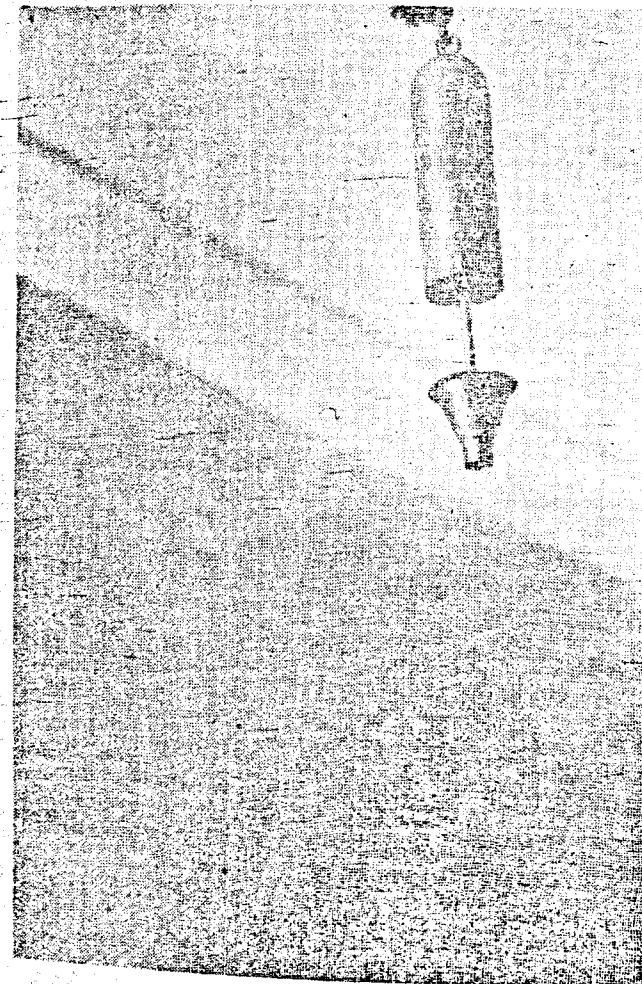
The right to dive for pearl oysters changed hands from the ancient Tamils to the Portuguese, Dutch and British in the different periods 1524-1658, 1658-1796, and from 1796 onwards respectively, depending on the nation which reigned supreme in those days. The fisheries were conducted both on the Ceylon side and the Indian side. During the period of 292 years from 1658 onwards, only 26 fisheries were conducted on the Indian side of the Gulf of Mannar, taking place at intervals sometimes of more than thirty years.

The last successful pearl fisheries on the Indian coast took place off Tuticorin in 1925-28. In the year 1924-25, 28 beds off Tuticorin and Tiruchendur were inspected, and 12 crores of oysters were estimated. In 1925-26, 14,096,839 oysters were taken, yielding a revenue of Rs. 2,25,498. In 1926-27, 1,609,937 oysters at Rs. 31,387 and 10,558,642 oysters at Rs. 88,466 were taken.

Improved System of Inspection

The irregular cyclic character of the pearl fisheries in the Gulf of Mannar has been evident for a long time. Hornell, while suggesting in 1922 a few recommendations for a proper exploitation of the pearl fisheries, stressed the need for an improved system of inspection of the pearl banks. The new system has been in operation from 1923 onwards. The three divisions A, B and C are: A—the Northern or Kakkarakal Division consisting of eleven banks; B—Central or Tuticorin Division (42 banks) and C—Southern or Cape

The inspection of pearl fisheries was carried out on board the M.F.V. Gouhar Khaleeli



The Bottom Sampler

Comorin Division (ten banks). The Tholayiram Paar is one of the richest and largest banks on our coast, and it is inspected very regularly. In 1928-29, there were 2,019 oysters present on the Tholayiram Paar; none in 1930-31. In 1939-40, there were 409 oysters and 1,148 oysters in 1946-47.

Since the last pearl fishery in the Tholayiram Paar, this bank was being inspected almost every year till 1940-41. Thereafter, for the two years 1941-42 and 1942-43, the Pearl Bank Inspection was suspended due to emergency regulations. In April 1944, the inspection was resumed. During April 1949, a thorough and comprehensive survey was conducted by the author on board the fisheries vessel, M.F.V. Gouhar Khaleeli.

Comprehensive Survey

The period of inspection lasted for twelve days. This inspection was similar in general principle to those conducted

(e) the presence of the enemies of pearl oysters such as "Kilati" Trigger fish, "Velamin" Perch, Suran (Modiala), Star fish, etc.

The nature of the bottom was observed by taking samples collected by a Bottom Sampler designed by the author. The samples of sea water from the bottom were obtained by the use of a Water Sampler made at Krusadai Biological Station to the author's design. The larger forms of bottom fauna and flora were picked up by the divers. They included Crater sponges, Ball sponges, Hydroids, solitary corals, Brain coral, Fan coral, Starfish, Feather stars, sea-urchins, sea-squirts, chank, Cone-shell, etc.

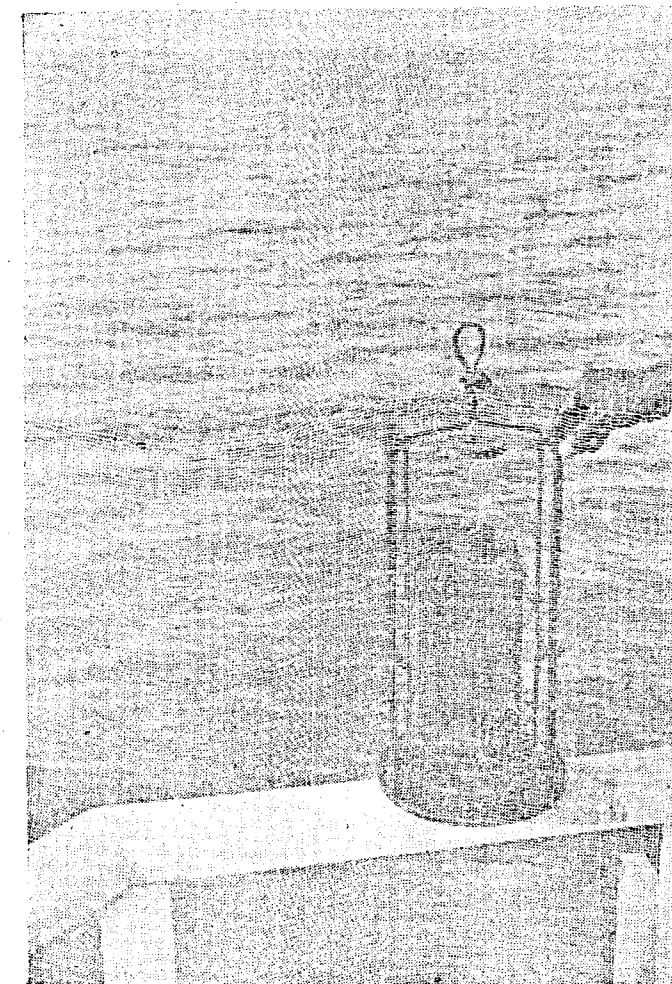
Unique Nature of Inspection

During the inspection, the number of oysters collected was only 58 and they were all less than a year old, some of them being less than three months old. This inspection is unique in the history of Pearl Bank Inspection in Madras State in view of the fact that this is the first time that a comprehensive and intensive inspection of this nature has been carried out. The scientific data are being worked out in detail and the results will be duly published in scientific journals.

The immediate result of this inspection of the Tholayiram Paar is that there is no prospect of a pearl fishery in this bank for another two years, but similar detailed hydro-biological surveys conducted regularly are essential to cover all the banks once in two years so that the presence of pearl oysters may be carefully observed and any possible chance of a good fishery fully utilized.

In the words of James Stuart who was connected with the pearl fisheries a century ago. "The success of pearl fisheries in the Gulf of Mannar depends primarily upon natural events beyond the control of man; nevertheless, we may, by the most vigilant attention and good management, watch the progressive working of Nature, and not fish up the oysters before they have reached maturity; nor after they contain pearl suffer them to die on the banks and the pearl to be lost. We may know the ages of every deposit of oysters upon the banks and by letting the youngest remain undisturbed until the last, we may protect each successful period and in corresponding proportions shorten the unsuccessful intervals."

Samples of bottom flora and fauna picked up by the divers from the ocean bed



The Water Sampler

in earlier years, but it was more intensive and comprehensive. Three Tuticorin boats and twelve experienced divers were engaged for examining the bed and collecting pearl oysters and other marine creatures from the bottom of the bed. The whole area of the Tholayiram Paar, six miles long and about two miles wide, was covered in eight days. On an average, four hundred dives were made by the divers daily and each diver covered nine square yards in a dive.

Every day the motor vessel was anchored and the position of the vessel was fixed by compass bearings. Each day, the following hydro-biological data were collected from the station:—

(a) Temperature, specific gravity, salinity, dissolved oxygen content, silicates and nitrates of the sea water at the surface and at the bottom,

(b) the nature of the bottom,

(c) the nature of the free floating organisms, called plankton,

(d) the different types of fishes at the bottom, their length, weight, sex, stomach contents, etc., and

Rural Electrification

India is a land of villages. Over 90 per cent of our population live in our six lakhs of villages. Village life at present reflects poverty and social despair. It is vital for Indian economy and civilisation that the standard of life in the villages be raised. The future progress and prosperity of India depends on the improvement of the rural conditions. There has been a large-scale migration of the rural population into urban areas in the war and post-war period. Though Mahatma Gandhi appealed for a return to the villages, rural areas still lack the attractions to afford the full life. Rural electrification can create the necessary changes for revivification of village economy.

Rural reconstruction to be effective must embrace every aspect of village life. Water-supply, communications, education, village industries, forestry should all be covered in comprehensive rural development plans. It is impossible for such reconstruction to be undertaken entirely by Government. It must be done on a co-operative basis, the villagers themselves taking a large part in the work. Co-operative institutions therefore are vital. The villagers should supply labour and funds. Government can supply expert technical advice and supplementary financial assistance, and Village Committees should undertake the execution of the plans.

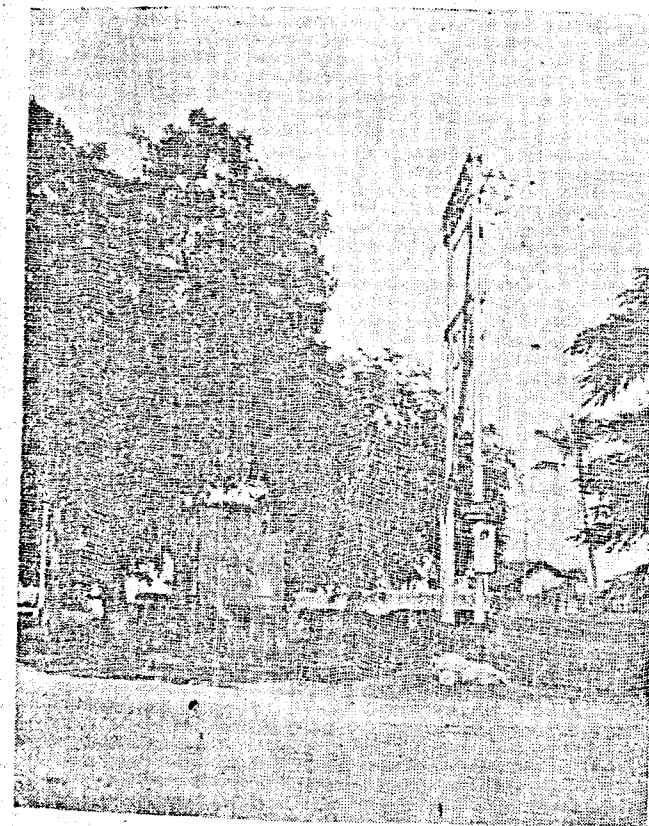
Enriching Village Life

Government have already initiated a rural reconstruction scheme in this State. A number of firkas and khadi centres were selected for intensive development initially and Government intend to extend it gradually throughout the State. Light and fans for the home, street lighting, community radio, cinema, simple protected water-supply and similar elementary amenities, should be provided to give a new tone and life to the village and the necessary recreational, educative and cultural values that will progressively enrich the quality and content of the village life and contribute to the steady elevation of the standards of life. For this electricity is a vital desideratum.

Rural electrification means the creation of conditions in rural areas whereby the villager can get a supply of electricity at the same economic rates as his fellow citizen in the urban area. Rural electrification is being given increasing attention even in highly advanced and industrialised foreign countries. But in India, where life is centred in the village, rural electrification has a special national significance. Of the six lakhs of villages in India covering an area of one million square miles, only 2,000 villages get electric supply, forming less than one quarter of one per cent. Even this is mostly limited to certain areas in the States of Madras, Mysore and Uttar Pradesh. Of the 25,000 villages in our State, only 1,300 have electric supply. Madras leads in the matter of rural electrification. But barely four per cent of our villages have been so far electrified. The task ahead is stupendous indeed.

Basic Difficulties

The basic difficulty in rural electrification is the large cost and the poor and scattered nature of the load which will not give the minimum required return on the investment. Notwithstanding this, Government are giving



Terminal Pole and Kiosk in the Coimbatore Distribution System

special priority for rural electrification, particularly in the selected firkas even at a loss as per the normal standards of return on investment. This will ultimately stimulate the rural areas and make electrification facilities more and more remunerative and even self-supporting.

Another main difficulty is the present shortage of electric power in the State. But, when the five-year plan of electrical development on hand is completed, in two or three years the generating capacity in this State will be doubled and the power position will improve substantially. Electric power from wind-mills in far-flung and isolated farms may be feasible. A few selected experimental wind-mill stations are being set up by the Government of India and better exploitation of wind power may be feasible eventually in remote areas.

For the present, power position continues to be difficult and the large waiting demand for power for agriculture in the rural areas can be met satisfactorily, but only after two to three years. The position is particularly difficult in the Andhra area, where the small thermal stations have been fully loaded up. The completion of the Machkund Hydro-Electric Scheme in two or three years and the taking up of the Tungabhadra Hydro-Electric Scheme, which may take about five years for completion, are eagerly awaited.

Power for Agriculture

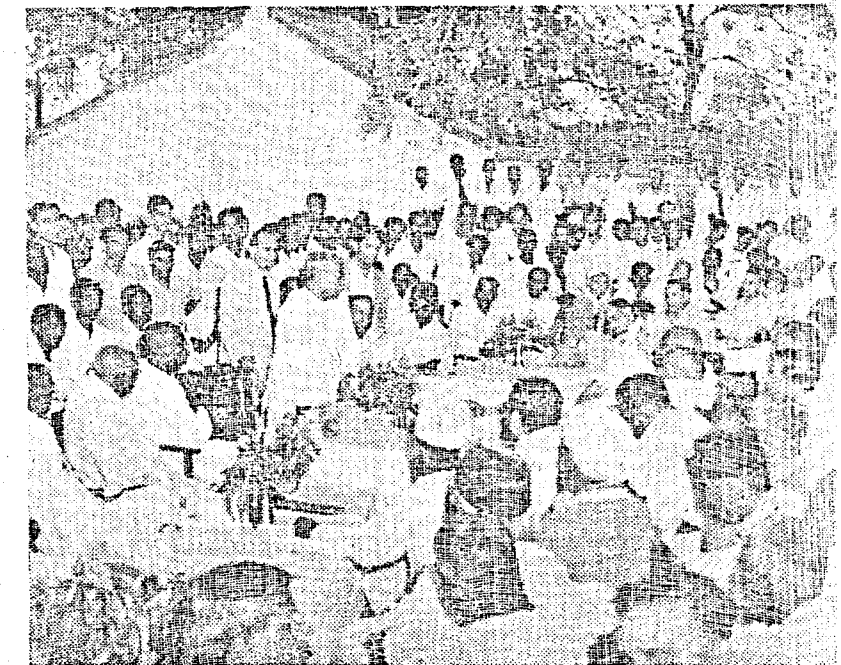
The bulk of the rural load at present mainly comprises electric pumping from wells and in some cases in the Andhra area from canals and rivers. Due to the dearth and high prices of cattle and labour, the demand for electric power for agricultural pumping is mounting. There are over 20,000 applications on hand for power for electric pumps representing a load of over 90,000 KW. This is small wonder because, while the cost of everything has shot up to three or four times pre-war level, that of electricity has increased by barely 20 per cent. Agriculturists know too well that cost of electric energy is only a fraction of the cost of upkeep of an average pair of bullocks and that every acre of land brought under electric lift irrigation brings in an additional gross income of over Rs. 100 per year with electricity costing less than Rs. 10.

In leading foreign countries, electricity is liberally used in the villages for deep ploughing, threshing, poultry farming, dairying and a wide variety of farm requirements yielding large production and incomes to the farmers. This is achieved through rural co-operative societies aided by Government. In the prevalent economic conditions and our backwardness in the manufacture of electrical appliances, such comprehensive use of electric supply in the farms is a remote possibility. But we can certainly supplement electrical pumping with cottage industries, for small-scale processing work such as rice hulling, cotton ginning, nut decorticating, oil crushing, sugarcane crushing, flour milling, and other jobs. Villages should not only increase the output of the raw agricultural produce, but should export only finished products. In this respect we have much to learn from the Japanese system of cottage industries, where there are many 'one family' or even 'one-man' factories, and where machinery and consumption goods are manufactured by making components in several small-scale factories and assembling them.

Rural Industries

Government are giving special aid to rural industries. Special low tariffs are allowed, the charges varying from 9 pies to one anna per unit for both electrical pumping as well as cottage industries up to five-horse power. The service connection is given free. There is a Hire Purchase system for the supply of electrical pump-sets and appliances to farmers and a servicing system for the electrical installations and equipment at low rates. The electrification schemes in the selected firkas are being subsidised to the extent of the deficit of the return required as per the usual standards. It is all substantial help indeed in view of the prevailing high price levels for materials, labour and fuel and the consequent high cost to Government of generation, transmission and distribution.

Considering the colossal financial implications of large-scale rural electrification and the vital necessity, however, of facing the problem, it is essential that all possible steps to economise the construction works of rural lines and distribution be taken. Standards and designs should be reviewed and made simpler and more economic consistent with the essential safety. The use of indigenous wood poles cannot be overemphasised. Co-ordinated research for simplifying and economising rural electrification technique is a pressing problem.

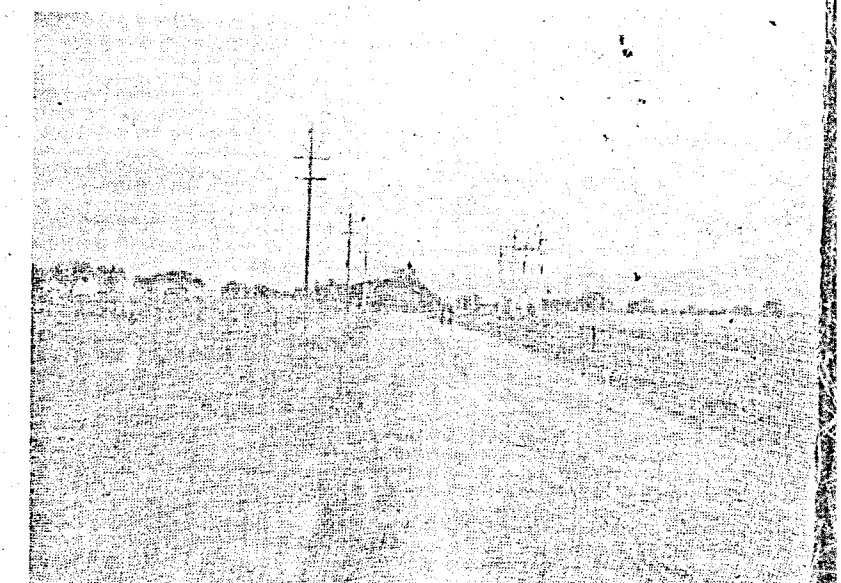


Sri M. Bhakthavatsalam, Minister for Public Works, addressing a gathering at Gudiyattam, North Arcot, on the occasion of the taking over of a private electricity company

Nationalisation

It is fortunate for us that the complete nationalisation of both electric supply and distribution has been enacted in our State. The licensees with profit motive cannot be expected to give the necessary impetus for rural electrification which must be developed as a national policy. It will be furthering the cause of rapid electrical development if the Central Government's policy of setting up Electricity Boards in the States is implemented quickly.

Distribution System in Coimbatore



The Machkund Hydro-electric Scheme

The Machkund Hydro-electric Scheme envisages harnessing of the well-known Duduma Waterfalls on the border of Madras and Orissa States, for generating electricity. The country is picturesque but highly malarial and inhabited sparsely by hill tribes. The nearest town to Duduma Falls is Jeypore, about 36 miles away. Investigations were first carried out about 20 years ago for the Kolab and Machkund Schemes, but further action was deferred owing to lack of adequate demand for power in the area. Later, with the formation of Orissa Province, Kolab went to it, leaving Machkund as common to both Orissa and Madras. Detailed investigations were carried out on the Machkund Scheme in 1941-43 and the project report was prepared in 1944. After negotiations with Orissa with regard to sharing of cost and power, the Scheme was sanctioned in 1945.

The site of the Scheme is situated about 125 miles by road from Visakhapatnam. The approach road to the Scheme site branches off from the main Visakhapatnam-Jeypore Road at Lambadaput, which is 110 miles from Visakhapatnam or 105 miles from Bobbili.

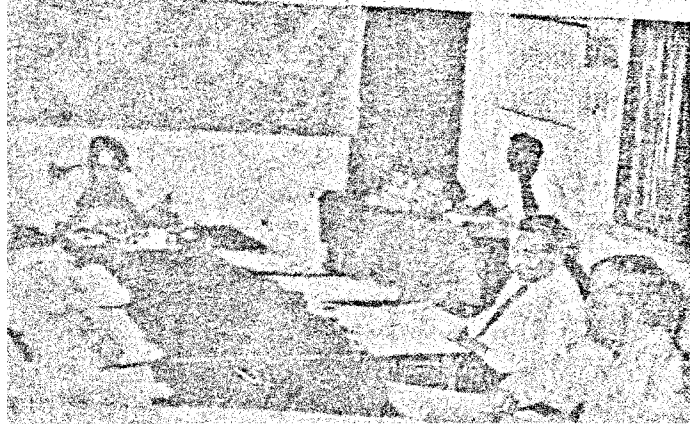
Diversion Dam

At Jalaput, a dam 134 feet in height to store 25,650 million cubic feet of water, will be built across the Machkund River at a point two miles below the confluence of its chief tributary, the Pata. The water so stored will be let down according to the requirements into the river and picked up at the Diversion Dam 17 miles below at the Scheme site. The Diversion will be 50 feet high with effective storage capacity of 339 million cubic feet.

The water from the Diversion Dam will be taken along a contour channel about 4,060 feet long running on the hill slopes on the right bank of the river and thereafter through an open flow tunnel about 4,250 feet long discharging into the Makkiput Valley. Here a pond will be formed by building across the valley a small dam 54 feet high called the Tunnel Pond Dam. From there a concrete lined pressure tunnel about 3,000 feet long will take off on the right side of the pond and deliver the water at the penstock head, where a surge shaft, control valves, etc., will be provided.

Six numbers 63 to 57 inches diameter steel pipes each about 1,650 feet long will lead the water from the penstock

A meeting of the Machkund Board of Control



head to feed six generating sets installed in the powerhouse and generate power under a gross head of 840 feet. Three machines to generate 50,000 K.W. power are to be installed in the initial stage rising to six numbers to generate 100,000 K.W. power ultimately. The tail water will be discharged back into the Machkund River, below the Duduma Falls. The approximate cost of the Joint Scheme is Rupees 9.3 crores, excluding cost of transmission lines, etc., in the Madras area which is Rs. 8.0 crores.

Joint Scheme

Plan 1 indicates the location of the project and plan 2 is a diagrammatic representation of the details of the Scheme.

The cost of the Joint Scheme will be shared by Madras and Orissa States in the ratio 70 to 30. Power produced will also be shared by the two States in the same ratio.

The power available for Madras State will be conveyed by 132 K. V. transmission lines and supplied to Visakhapatnam, Godavari, Krishna and Guntur districts. As required by the terms of agreement with Orissa, a Joint Board of Control has been constituted for the Joint Scheme. The Board recently met at Machkund and considered the revised estimate along with various points.

Progress of Work

Preliminary work on the scheme was commenced in September 1946 with one Division. The circle was formed in December 1946, with headquarters at Visakhapatnam. When sufficient accommodation was built at Machkund, the Circle was moved to that place in January 1949 and has been functioning there since then.

Road work from Lambadaput to Machkund and some of the bridges and culverts have been completed. Improvements to the main road from Visakhapatnam to Jeypore are being carried out by the Highways Department of Madras and Orissa in their respective limits.

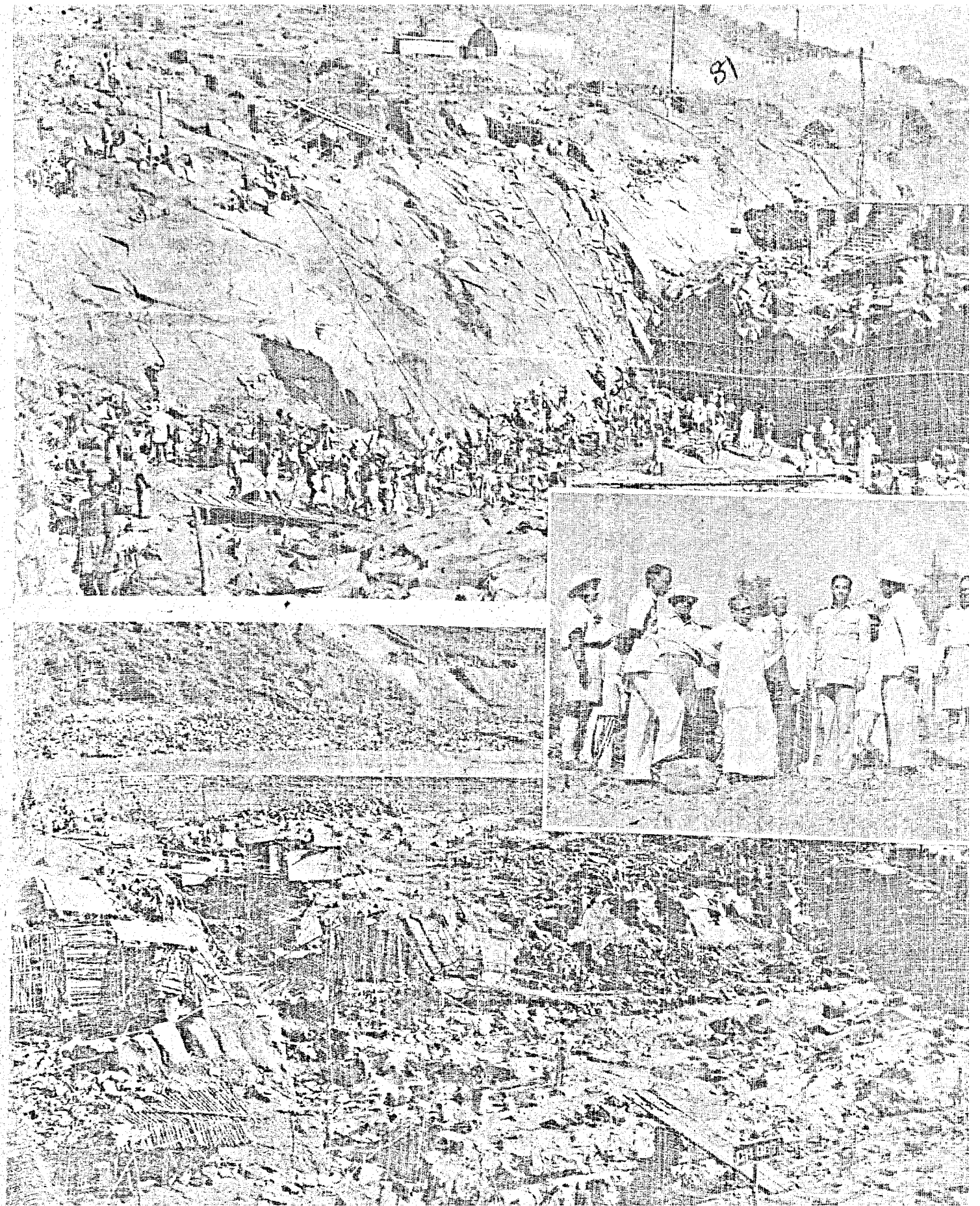
Almost all the temporary camp buildings have been completed with sewage and water supply arrangements. Work on permanent camp is in progress. Anti-malarial work was started soon after the Scheme was sanctioned and has been in progress with marked beneficial results.

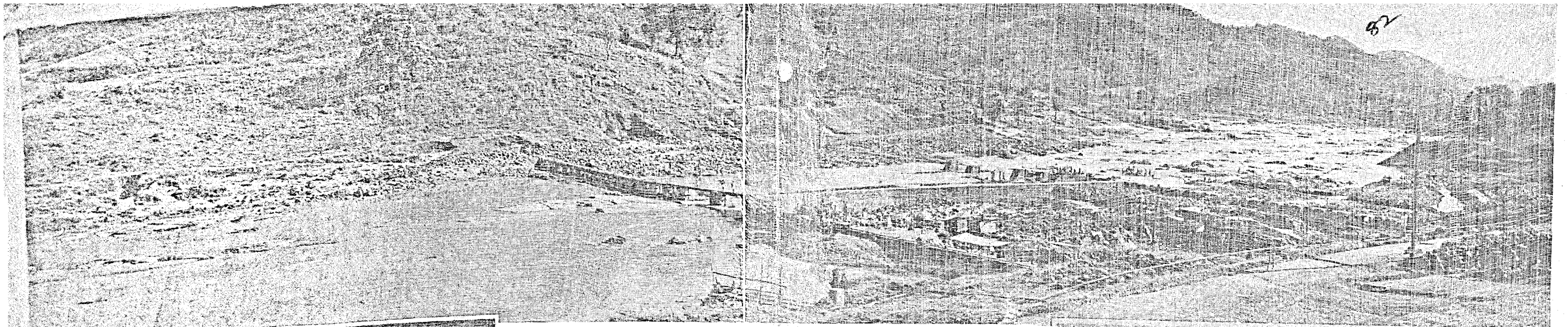
Scarcity of labour and disinclination on the part of outside labour to go to Machkund which were great handicaps

(Continued on page 26)

Excavation work is in full swing on the diversion dam in the Machkund Project. The two views on the opposite page indicate the brisk progress maintained. Sri M. Bhakthavatsalam, Madras Minister for Public Works, Sri R. K. Bose, Oriya Minister for Works, and other officials and engineers inspect the Project (inset)

On the cover page is a view of the Duduma Falls, whose waters are to be harnessed at Machkund.





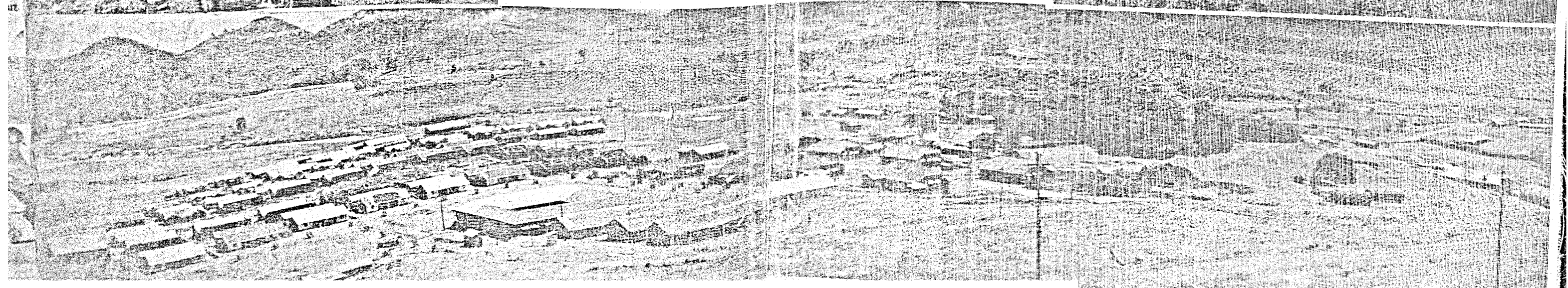
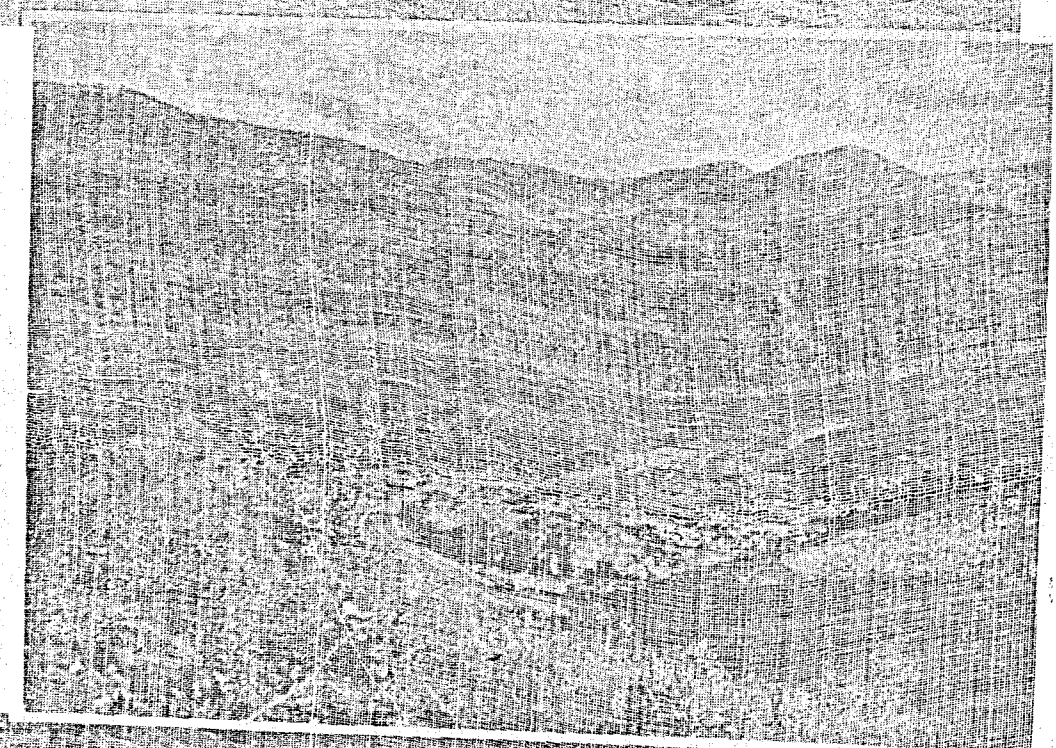
THE MACHKUND HYDRO-ELECTRIC PROJECT

Top : *Panoramic view of the Machkund Diversion Dam*

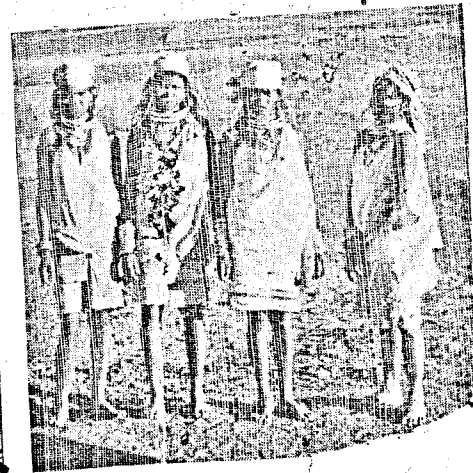
Left : *Coffer Dam Enclosure*

Right : *Tunnel Pond Dam—Excavation in progress*

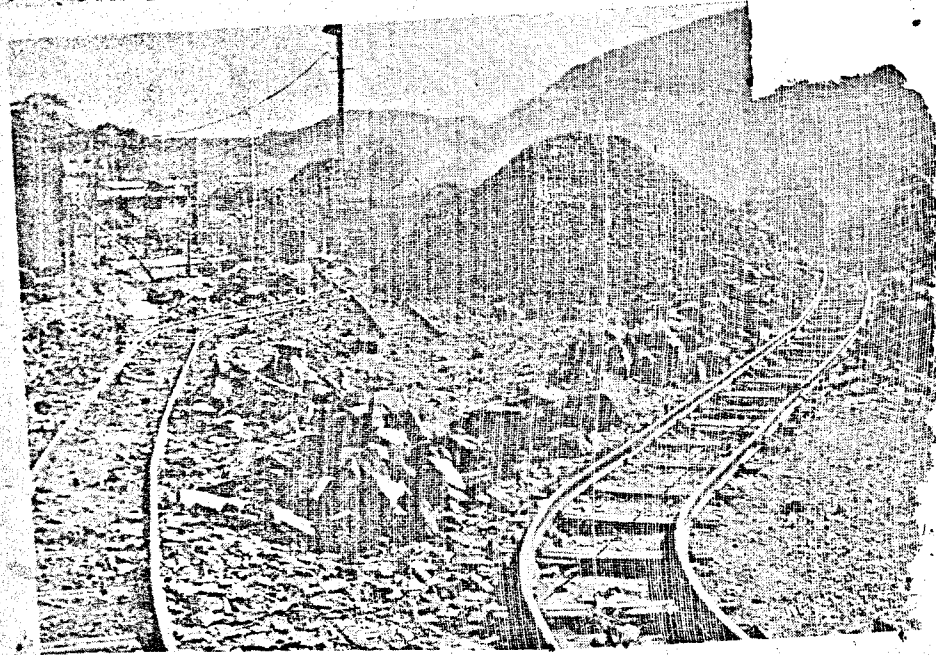
Bottom : *Hill top view of the Machkund camp*



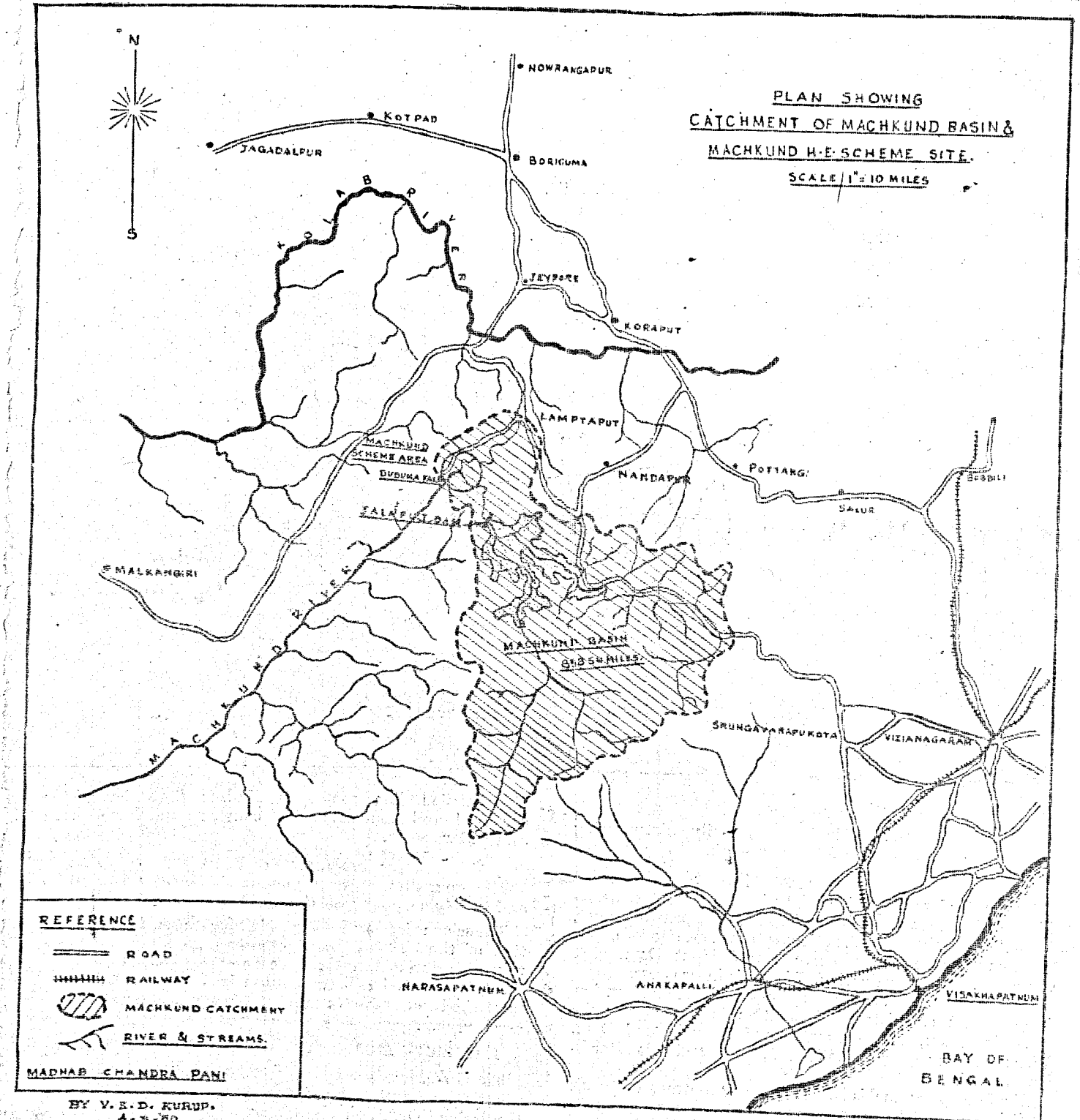
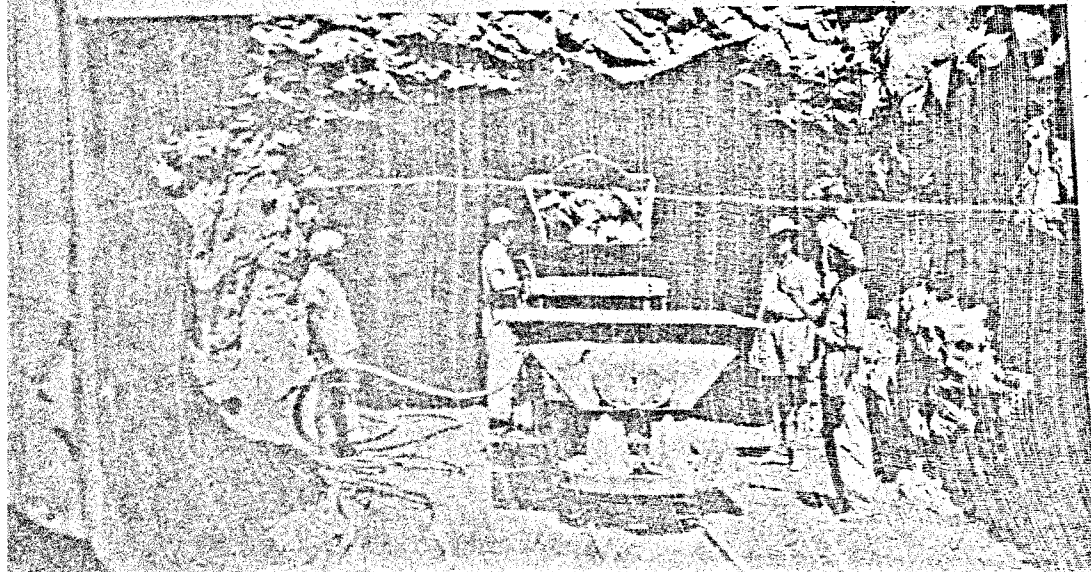
TRIBAL WOMEN OF
MACHKUND



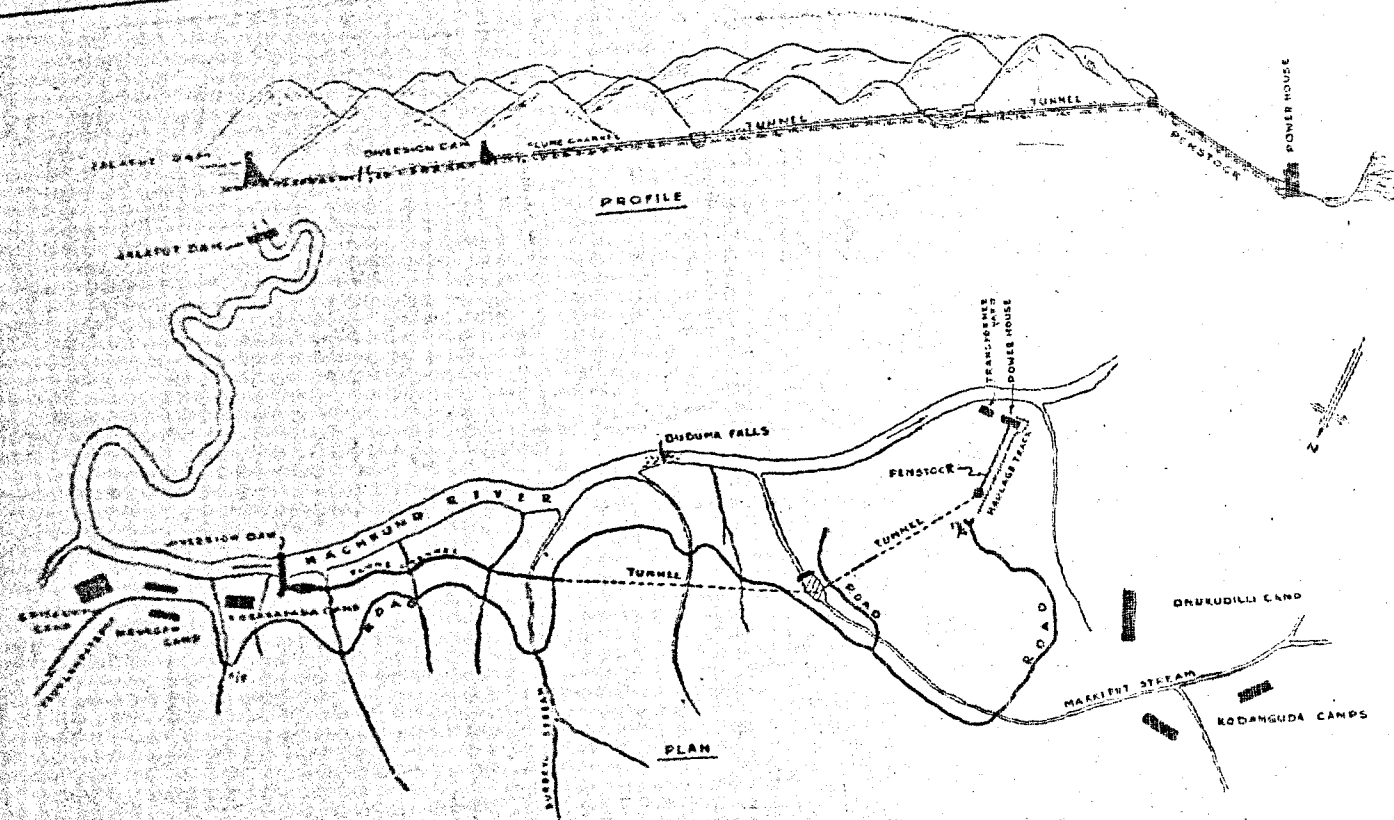
A smiling belle



Top : Entrance to the Pressure Tunnel
Centre : Crushers break up the boulders
Bottom : Mechanical loader at work



POWER



MACHKUND H.E. SCHEME

(Continued from page 24)

for progress of the work are gradually disappearing and about 4,000 labourers are now at work.

Survey for Land Acquisition

Survey for land acquisition for Diversion Dam submergible area, Flume Channel, Tunnel Pond Dam, penstock lines, 11 K.V. line from construction powerhouse to Jalaput dam and proposed camp site near Jalaput Dam, etc., are completed and valuation of lands is in progress.

Coffer dam work for construction of Diversion Dam has been almost completed. Excavation is in progress for Diversion Dam, Flume Channel and Tunnel Pond Dam. Work is also in progress both at entrance and exit of pressure tunnel.

The free flow tunnel is being let out on contract and work on it is expected to commence shortly. Orders have been placed for generating plant, and Indoor and Outdoor Switchgear and cables for Diversion Dam, penstock lines, etc.

Transformers have been received and are under disposal for power transformers and other substation equipment, etc.

Transmission line routes in Madras State have been surveyed and contracts for construction have been awarded recently.

Programme of Work

The programme envisages commissioning of the machines and supplying power by the middle of 1953.

The scheme is to be developed in four stages. Construction of the Jalaput Dam originally programmed to be taken up during the second stage of the scheme development, is proposed to be taken up now itself with a view to meet the increased power demand in the Andhra area.

Advisory Board for Technical Education

The Government have appointed Sri C. V. Krishnaswami Chetti, representative of the Institution of Engineers (India) and Dr. A. L. Narayanan, Principal, Maharaja's College, Vizianagaram, representative of the Andhra University, as members of the Standing Advisory Board for Technical Education, in the place of Sri K.K. Nambiar and Professor T. R. Seshadri, respectively.

Classes and School Hours

For some time past, the idea has come from many sources in different shapes to reduce school hours in order to teach more children. One suggestion is that elementary schools may run with one set of children for one half of the day for one session and with another set for another session. A second suggestion is to run the school for some pupils in three days in a week and for another set for three other days. These suggestions appeal so much to the lay mind that many are asking why educationists have not thought of them before and why even when the idea is put to them they hesitate to put it into effect.

The answer is that the solution is not so simple. It is arithmetically all right, but problems are not solved by arithmetic alone. There are other factors—the real conditions in the village, the distribution of children and, above all, the wishes of the parents themselves.

The real reason why more children are not at school is not that they are all helping their parents at work; that is only the excuse which village teachers give. This can be, and indeed was, often before tested in more than one way.

The other way of testing the truth of this excuse is by asking the parents themselves. And this was done, exhaustively too, in these days. It was found that in rural areas the parents did want their children up to the age of eight or nine to be kept at school as long as possible during the day to keep them out of mischief, if for nothing else. The longer hours a village school worked, the more popular it was. In fact it was not the qualifications of the teacher, or the accommodation, or the furniture, or the maps and globes and the rest of the paraphernalia that counted with the parent. The lame old village schoolmaster, with the cudgel by his side, who was under the tree by sunrise to hold his school for the day till sunset, was much more respected than the board school teacher, whose school door was closed till his oft-erring timepiece told him it was time to ring the school bell. But it was when the child was about nine years old and became useful to the household or to the parent at work, or to mind the baby, that the parent took away the child from school.

Part-time Pupils

The rule was therefore made ten years ago that children belonging to those classes of society which required their services for domestic or other work, especially girls and Harijan children, may be allowed to attend school for one session in a day after they have reached the third standard. These were the orders:

- (1) Part-time pupils were to be confined to Scheduled classes and girls only in Standards III, IV and V.
- (2) Instruction should be imparted for a minimum of three hours a day.
- (3) The managers of schools in which such part-time pupils read should be required to maintain a register of part-time pupils receiving instruction. This register should be checked by the inspecting officers carefully at the time of inspection and any tendency on the part of teachers to enrol as part-time pupils children who can easily attend the school for the whole school day should be checked. Personal investigation of some of the cases,

by interviewing the parents, etc., should also be made. These provisions were not taken advantage of probably because the teachers found it difficult to plan lessons separately for these pupils and to keep separate attendance registers, especially when a large number of schools were single or two-teacher schools at that time.

It was also probable that the inspecting officers did not give the teachers the necessary advice and guidance in the matter. What is therefore necessary now, is not any innovation nor any new orders, which may share the same fate, but an active implementation of the old orders by enough guidance from the inspecting officers and by closer and more frequent contacts with the parents by the teachers and generally a much more intimate knowledge of the local conditions by the Education department.

Adjustment to Local Conditions

In the same way as the above, other orders containing other facilities which take into account the rural conditions have also been issued under the authority of Government and the Education Department. They relate to the regulation of working hours, holidays and vacations. It is probably not widely enough known that so long as the working hours are definitely fixed and properly notified, the school hours in any elementary school can be fixed to suit local convenience, so too the holidays. There is nothing against the school being closed for a local festival, provided the teacher notifies it properly and does not make unauthorised closure of school into an afterthought holiday. Similarly, schools are at liberty to have their vacations during the harvest season and not necessarily for summer like urban schools.

Urban schools copy the traditions of secondary schools which in turn have trimmed their hours of work to suit those parents who attend offices and business houses. Families find it convenient when the day's home routine is uniform for all and school hours are therefore the same as those of office hours. It is an arrangement that has been found convenient by experience. Naturally, people are not willing to sacrifice convenience for the sake of sentiment. It is therefore a conscientious and an understanding implementation of the existing provisions that is necessary, not a mere change in the rules.

In the matter of adjusting school sessions to provide teaching for double the number of children with the limited space in towns, the shift system is already in practice in places where it is found necessary. No new rules are required.

Simple arithmetic is not enough to reform education. Those who say that by halving the school day the number of school children can be doubled do not know the real conditions. The large number of children who are not at school are not those who live in places where schools are situated and are denied the privilege of schooling owing to hard and fast rules, but those who live far away from schools. The halving of the school day will not help them. Other means should be thought of and that is a big problem. It cannot be solved in the simple way that has been suggested by the zealous and well-meaning but not so well-informed reformers.

Indian Air Force Station, Agra

March 5, 1950, will ever remain an important landmark in the chronicles of the Indian Air Force, for on this memorable day Republican India's first Defence Minister, Sardar Baldev Singh, laid the foundation stone of the first permanent Indian Air Force Station at Agra.

The ceremony, though simple, symbolises two important events. It not only gives the Indian Air Force its first permanent station but marks the beginning of an extensive works project to provide, as soon as possible, permanent accommodation on modern lines, for the I.A.F. all over India.

The Indian Air Force, though relatively young and small, has proved its mettle. During the last seventeen years of its existence the I.A.F. has shared the honour of playing its part in two major national emergencies. In World War II, the I.A.F. earned the title of "The Eyes and Ears" of the surface forces engaged in the Arakan and Burma campaigns. Again, during the Kashmir operations, the I.A.F. was called into service. This time its role was more extensive. It emerged as a formidable striking force and saved many a grave situation. The I.A.F. was hailed as India's first line of defence, winning the nation's heart for ever.

"In the matter of buildings for accommodating the Air Force," Air Marshal Sir Thomas Elnhurst, first C-in-C of Free India's Air Force, said in a Press Conference last year, "steps are being taken to plan and build suitable permanent accommodation in addition to and to take the place of the very temporary buildings that the Air Force

Largest of a modern Air Force Station on the lines of which the future I.A.F. Stations will be modelled

now inhabits. This is an expensive process but the country cannot have an Air Force without being able to accommodate it."

European Centres Studied

At the initiative of Group Captain (now Air Commodore) R. H. D. Singh, then Group Captain (Organisation), Air Headquarters, now Air Officer Commanding I.A.F. Training Command, a two-man Commission consisting of Colonel, now Brigadier, Pratap Narain, Chief Engineer, Air Force Works, and Flight-Lieutenant J. K. Roy of the Organisation Directorate, was sent abroad for a three-month tour of Air Force centres in Europe. They were later joined by Wing-Commander A. W. Chakko. During their visit the members of the Commission made a detailed study of the organisation and functions of important R.A.F. stations and training institutions and collected such information as could be of use for similar projects in India. In their work they received the fullest co-operation of the Air Ministry in London.

From England the party went to Belgium, where they visited the Evere airfield at Brussels, one of the biggest international airports under construction in Europe.

With the help of the information gathered by them during their tour, Brigadier Pratap Narain, Group-Captain S. N. Goyal, Director of Organisation, Air Headquarters, Group-Captain Thompson, Wing-Commander Chakko and Flight-Lieutenant Roy worked out a scheme for the construction of several stations. The construction of these stations is expected to cost several lakhs and the scheme which envisages the reconstruction of existing airfields and construction of accommodation both for staff and for technical purposes, will take about three to seven years in the initial stages.

New Designs Incorporated

While these stations are designed on the latest models, care is being taken to adapt them to local conditions. The magnitude of the scheme can be gauged by the fact that the construction work will be almost entirely new and not mere renovation of the existing I.A.F. stations.

Due to the increasing weight and speed of aircraft it has become necessary to approach the problem of designing airfields in a manner different to that adopted prior to World War II. At that time "runways" were not always required on Air Force airfields, and in fact were only to be found at a few civil airports mainly in America and on the Continent of Europe. The arrival of heavy bombers and high-speed fighters with very high wing loadings, the advent of jet propulsion and the ever increasing weight of bombs and fuel to be carried, have set a new problem for airfield designers.

"No Air Force can afford to be a static organisation. With the nucleus that exists and with the provision of permanent accommodation, the I.A.F. will at last come into its own. It will have the opportunity to keep pace with the progress made by the Air Forces of other countries.

Territorial Army

The Government of India have enacted the Territorial Army Act, 1948, repealing the Indian Territorial Force Act, 1920, with the object of raising a Territorial Army to form a second line of defence to the Indian Army in the event of a national emergency. With a view to encourage the State Government servants to join the Territorial Army, this Government have granted the following concessions, viz.,

(1) Substitutes may be appointed if necessary in the place of Government servants undergoing training in the Territorial Army.

(2) if the military pay of the person deputed for training is less than his civil pay, the difference will be made good by Government, and

(3) when Government servants enrolled in the Territorial Army attend the annual training or courses of instruction, the period of absence from duty will not be deducted from any casual or other leave which may be admissible to them and will be treated as duty for purposes of civil leave and pension.

The Government hope that private employers will follow the example of the Government and give their employees facilities for joining the force.

Government Servants and Territorial Army

With a view to encourage the State Government servants to enrol themselves in the Territorial Army, the Government of Madras have accorded permission to the non-gazetted Government subordinates, including inferior servants, to forward their applications to the Officer Commanding a Unit, in which they wish to be enrolled, through the head of the department. A gazetted officer should submit his application to the Government through the head of the department. The approval of the Government is necessary before Commissions are granted to Government servants.

The following classes of Government servants are not permitted to enrol themselves in the Territorial Army: (1) Police Officers of all ranks; (2) Officers of the Public Works Department (Technical hands only); and (3) Officers and subordinates of the Jail Department.

Work of Police Department in 1948

Reviewing the administration of the Police Department in 1948, the Government of Madras observe that considering the fact that various difficult problems relating to law and order diverted the attention of the police from their normal functions in respect of prevention and detection of crime, it must be said that a fairly high standard of detection was maintained. The Government add that it is gratifying to note that the police force, on the whole, was rapidly adjusting itself to the changed political conditions. The other salient features of the Government's review are as follows:

Crimes.—The year under report was marked by an increase in the volume of crime, owing to unsatisfactory economic and seasonal conditions, which resulted in short supply of foodgrains, high cost of living, widespread labour

and agrarian unrest and Communist and other disturbances. The total number of cognizable offences, excluding offences under special and local laws and the nuisance sections of the Indian Penal Code, increased from 69,000 in 1947 to 78,635 in 1948. Grave crimes increased from 50,109 in 1947 to 58,259 in 1948. Murders increased from 1,161 to 1,233; dacoities from 211 to 381; robberies from 564 to 743; house-breaking cases from 10,930 to 13,138; cattle thefts from 4,813 to 5,874 and ordinary thefts from 32,430 to 36,890.

There was also a marked increase in the total number of cases under special and local laws from 207,579 in 1947 to 226,721 in 1948. As in the previous year, the increase was partly due to the enforcement of various control orders and cases under the Madras Prohibition Act. The percentage of detection of total cognizable crimes was 41.98 per cent, as against 44 per cent in 1947. The percentage of detection of grave crimes also showed a decrease from 46.5 per cent in 1947 to 43.1 per cent in 1948.

Communist menace.—Communist activities were particularly noticeable during the year. At the instigation of the Communists, there were several strikes on the question of retrenchment of personnel, the most important being the general strike of workers in all mills in the State, excepting the B. & C. Mills in the City and the Gnanambigai Mills in Coimbatore.

Sporadic communal disturbances, following the assassination of Gaudhiji, the unlawful activities of certain political organizations, the widespread kisan agitation and the political situation in Hyderabad with its serious repercussions in the border districts of Madras State—all these threw an unprecedented strain on the police force. Despite this, law and order were well maintained and the police force proved equal to the various calls made on them.

Criminal Judicial Service

The Government of Madras have ordered the constitution of a separate Provincial Service under the name of the Madras Criminal Judicial Service, for the District Magistrates, working under the scheme of Separation of the Judiciary from the Executive.

Parade at the I.A.F. Station, Tambaram



Planned Development of Cattle Wealth

India's cattle population which contributes annually over 1,200 crores of rupees to the national wealth, is an asset with immense possibilities of further development. After partition, India is estimated to have 136 million heads of cattle and 40 million buffaloes and, compared with other countries, she still maintains the largest cattle population in the world. Proper development of this vast number can add substantially to the national wealth, at the same time ensuring better health for the nation and more motive power for agriculture and transport.

To produce better cows and stronger bullocks out of this large potential wealth is the dual aim which the Animal Husbandry Department of the Central Ministry of Agriculture, the Indian Council of Agricultural Research

and the Indian Veterinary Research Institute are pursuing. The main lines on which development is being sought are: (a) improvement of the well-defined breeds which India possesses with a view to increasing both their milk and draught capacity; (b) upgrading of the nondescript cattle; (c) betterment of cattle nutrition; (d) prevention of diseases; (e) segregation of the unproductive cattle and (f) expansion of veterinary education.

Objectives of Research

Research on cattle breeding has kept the following objectives in view:

- Improvement of the specific breeds by introducing more milk and draught capacity, according to the types of breeds dealt with;
- Upgrading of the nondescript cattle—those that do not conform to the characteristics of any particular breed and are usually neglected because of their low milk yield and/or draught capacity, by grading them up with good bulls and producing a general utility animal;
- to evolve by selective breeding, a dual purpose animal which will be useful both for milk and draught;
- to develop internally in the country some of the famous breeds which India has largely lost as a result of the partition; and
- popularising the improved breeds and to interest the cattle owner in improved methods of breeding.

Research on breeding has indicated the possibility of evolving dual purpose animals from some of the draught breeds available in the country. Kangayam and Kankrej, formerly of the draught type, are two such breeds which have shown considerable potentialities as dual purpose cattle.

Breeds lost to Pakistan

With the partition, the home areas of three famous milk breeds, the Red Sindhi, Sahiwal and Tharparkar, went over to Pakistan but fortunately, some of these animals are still available in India from which it is possible to build up the stock. Attention has been diverted to multiply them in suitable tracts in the country with a view eventually to using them for grading up the nondescript cattle.

The Sahiwals which are the best milk breed in the country, are now being bred in the Punjab, Delhi, U.P., Bhopal and Madhya Pradesh. The Red Sindhis are being bred in Bombay, Bihar, U.P., Madhya Pradesh, Hosur, Coorg and Madras. Tharparkars are being bred in the Punjab and Bihar.

Famous Indian Breeds

A number of good cattle breeds exist in India, both of the milk and draught type, the principal among which are: Haryana, Kankrej, Ongole, Gir, Caelao, Malvi, Anrit Mahal, Khillari and Kangayam. Among the buffaloes, well-known breeds are: Murrah, Jaffarabadi, Surti, Mehsana, Nili Ravi and Nagpuri. These breeds have

developed through centuries and are shaped by their environment. The policy in respect of developing the well-known breeds is to improve both their milk and draught capacities and to popularise their use throughout the country. For the latter, various methods are being adopted by the State Governments, including periodical cattle shows organised in different parts of the country. The All-India Cattle show held annually also focusses attention on the more important breeds and how they could be further developed.

Central Herd Books

The Indian Council of Agricultural Research have opened Central Herd Books for cattle with a view to maintain pedigree records of animals of improved breeds. Registration in these books is confined to animals having to their credit certain minimum performances regarding milk yield and which possess certain well-defined characteristics. Such registration enables the owner to have a proper appreciation of the worth of the animal and also provides an impetus for further development.

In addition, the Ministry of Agriculture, in co-operation with the States, propose to initiate a Key Village Plan which will cover 625 village centres. The work envisages breeding from pedigree bulls alone in selected groups of villages, periodic surveys of milk production and improvement in draught capacity and application of results of research. Two such pilot centres are proposed to be opened this year—one in U.P. and the second in Cochin.

Nondescript Cattle

Although India is fortunate in having a number of well-defined breeds which can stand comparison with some of the famous foreign breeds, the presence of a large number of nondescript cattle creates a problem of first class magnitude. It is by upgrading these animals and segregating the unproductive among them that substantial results can be had by way of improving national nutrition or providing more motive power. The problem naturally does not admit of any quick solution in view of the millions of such cattle that exist all over the country, but a beginning has been made by giving it a high priority and steps are being taken in the States to upgrade as many of these animals as possible by breeding them with good bulls of the milch type in order to produce a general utility animal having both milk and draught qualities.

Animal Diseases

Cattle disease is another aspect of the problem on which considerable attention has been paid. Organizations exist in a number of States for dealing with livestock diseases by special officers and veterinary staff. These schemes are sponsored by the Indian Council of Agricultural Research and include three sets of Disease Investigation Officers, one for cattle, a second for sheep and goats and the third for poultry. Their function is to investigate the causes of the disease that occurs and to evolve suitable control measures. They are a link between the Council and the Indian Veterinary Research Institute on the one hand and cultivators and breeders of livestock on the other.

Rinderpest, which broke out in an epidemic form in Cutch last year where an acute fodder famine prevailed,

was prevented to a very large extent because of the presence of special veterinary staff deputed there by the Ministry of Agriculture.

Sera Vaccines

Excellent work has also been done in the Indian Veterinary Research Institute at Izatnagar where a number of effective vaccines against some of the fatal cattle and poultry diseases, e.g., rinderpest, Haemorrhagic Septicemia, Black Quarter and Ranikhet disease of poultry were discovered. During the period of five years from 1941 to 1946, over 27 million doses of such vaccines were given, of which rinderpest vaccines alone came to 20 millions.

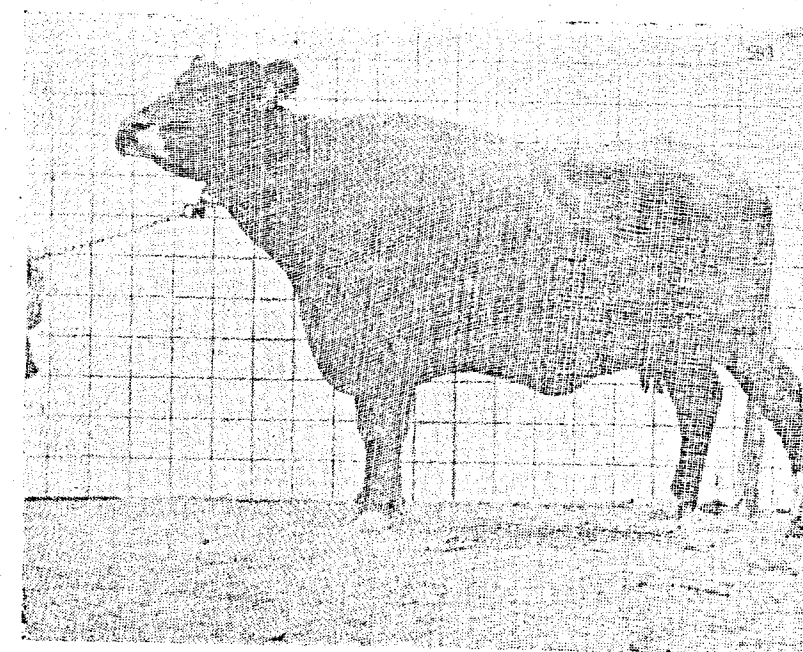
Cattle Nutrition

Fodder research on legumes and grasses and evolution of subsidiary foods for cattle are two other aspects of



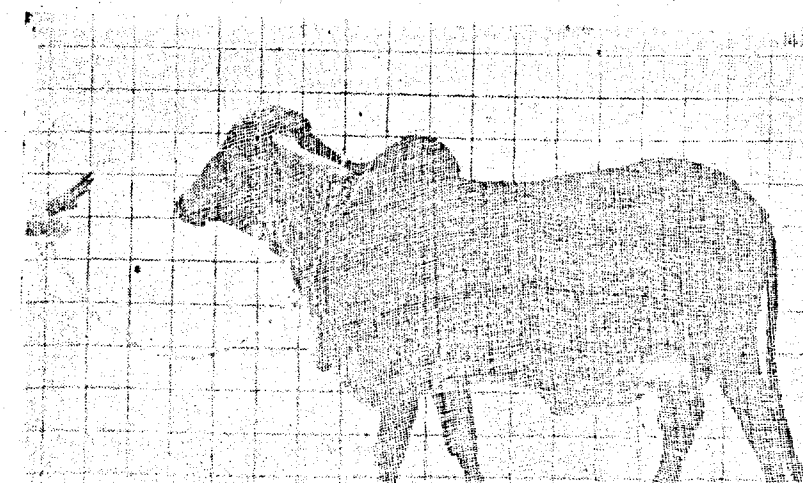
Kangayam bull

Ongole cow



Ravi buffalo cow

Gir cow



Need for Guidance on Dental Care

There is a great deal of ignorance among our people regarding the vital importance of dental health and the necessity to take proper care of teeth. Even educated people do not appear to be well informed about these matters. A Dental Committee which examined several text-books on health used in American schools found plenty of wrong facts in regard to teeth. People do not know that the foundations of teeth are laid in foetal life and that nutritional deficiencies in the diet of the expectant mother and the growing child affect adversely the building up of good, strong teeth.

Parents make a mistake in neglecting the deciduous teeth of little children because they fall out after a few years. They do not know that if these teeth are not kept in healthy condition and if they are lost too early, the normal growth of the jaw and the form and symmetry of the face may be affected. If these are retained too long the permanent teeth which replace them may not come in their proper places. It is difficult to make little children clean their teeth. They are given too much of sweet things to eat such as lozenges and toffees; no wonder that even before the children are two or three years old they have one or more caries teeth. Dental caries has become one of the commonest diseases. Malocclusion or irregularities of the teeth and jaws are also fairly common in children.

The fact that teeth and jaws make up two-thirds of the face should be impressed on all of us, since we all like to have beautiful faces. It is of particular interest to women since no element of a woman's beauty can take the place of white even, well-shaped teeth. No powder, paint or lipstick can conceal the imperfection of her dental arrangements. The art of dentistry known as Orthodontia which straightens crooked and irregular teeth is said to have made great advance in recent years. Dental surgeons who have been specially trained in this line of work may be able to realign the teeth in children and young persons and restore deformities of face to normal appearance.

Teeth and General Health

The relation between the condition of the teeth and general bodily health has been known for many years now to medical men. The lay people are apt to think that diseases of the teeth such as caries and pyorrhoëa are confined within the mouth. Few of us are aware of the fact that infection from the mouth may be carried to other parts of the body and that affections of the teeth and gums are often associated with other bodily ailments. The removal of bad teeth and treatment of gums often clear up ailments which arise from infection from an unhygienic mouth. Even apart from the fear of such serious consequences, it is desirable to have a hygienic and sweet-smelling mouth.

From the standpoints of utility, beauty and health, people must be made to realise the importance of preventing dental defects, infections and diseases. Dental care must start early in life even by the time the child is three years old. Dental examination of children at Child Welfare Centres and in schools will help greatly the prevention and control of dental complaints. Since it will take a long time

to produce sufficient number of qualified dentists, to meet the dental needs of the whole population, we shall have to concentrate on preventive work.

Preventive Aspect

To-day prevention is keynote of medicine. The modern approach to health is increasingly in the direction of health education and it stresses the preventive aspect. According to present-day ideas, health education does not mean merely imparting information about health matters. It should inculcate correct health habits. Dental health practices must become part of every individual's life and the foundation for it must be laid in the period of childhood. Let people know that cleaning teeth at bedtime is more important than cleaning them in the morning.

The best thing to do is to clean the teeth after every meal. The proper way of cleaning teeth should be taught in a practical way to every child and made into a habit. Teeth cleansing parades should be held at schools. The example of teachers and parents in matters of personal hygiene will help to form right habits in children much more than any theoretical instruction.

Sri A. B. Shetty, Minister for Agriculture, recently inaugurated the Central Dental Health Publicity Bureau. Such bureaus in various parts of the country will enable the launching of a systematic and countrywide campaign for educating the people on matters relating to dental health. Dr. Mallik, who has been very helpful to the Madras Government in preparing a scheme for a Dental Training Institute, has been entrusted with this important work. Sri A. B. Shetty expressed the hope that the Bureau of Public Relations run by the American Dental Association would give good guidance in the matter of preparing and distributing educational material and making wide use of all modern methods of publicity and propaganda to educate the people in the matter of preserving and taking care of teeth.

The Bureau can serve the best interests of both the profession and the public by recommending for use only tested and certified drugs, pastes, dentifrices and other materials, paying particular consideration to the needs of low income groups who form the large majority of our population, and who have no access to dentists nor can afford to buy any tooth brushes, pastes and powders.

Bifurcation of Education and Public Health Department

The Government of Madras have ordered the bifurcation, with effect from March 1, 1950, of the Education and Public Health Department into the Education Department and the Health Department. Communications are to be addressed, in future, to the Secretary to the Government of Madras, Education Department, and the Secretary to the Government of Madras, Health Department, as the case may be.

Measures to Combat Tuberculosis

The Sub-Committee of the Tuberculosis Association, Madras, have prepared a ten-year plan for the control of Tuberculosis in the Madras City and have proposed the provision of a number of amenities which include (1) additional Tuberculosis clinics, (2) additional Tuberculosis beds, (3) concessions for X-Ray and screening work in Tuberculosis cases, (4) B.C.G. Vaccination, and (5) Propaganda. The scheme is to be implemented by the combined efforts of the Government, the Corporation of Madras and social organisations. The Government have already approved the plan in general. They have since examined the question of implementing the first stage of the ten-year plan.

The first stage includes the establishment of four T.B. clinics in the Stanley Hospital, General Hospital, Kasturi Bai Gandhi Hospital and the Royapettah Hospital, respectively, and the provision of accommodation and of X-ray and laboratory facilities in each of these clinics. The Government have approved the first stage of the scheme subject to certain modifications. As regards clinics, they have sanctioned new clinics in the General Hospital and the Kasturi Bai Gandhi Hospital while the clinic sanctioned in the Temple Gardens adjacent to Royapettah Hospital will be counted as one of the four clinics asked for and the Chest Clinic now working in the Stanley Hospital will be enlarged to treat Tuberculosis cases also.

The Government consider that no provision of additional beds or reservation of beds specially for Tuberculosis patients from the Madras City is necessary. They have appointed the Director of Tuberculosis Institute, Egmore, as the Co-ordinating Officer. Two Government B.C.G. teams and one Corporation B.C.G. team have already been sanctioned and they are doing useful work in the City. A separate ward of 18 beds in the Temple Gardens, Royapettah, will be set apart for emergent Tuberculosis cases coming through the four T.B. clinics.

Possession of Sulphur

The Government have directed that the exemption from the operation of the prohibition and directions contained in the Indian Arms Act, 1878, in respect of sulphur not exceeding 10 seers granted in their Order, dated November 22, 1908, shall be withdrawn until further orders, provided that sulphur not exceeding three and one-third seers, when possessed by any person as a medicine, prescribed by a registered medical practitioner, and sulphur dust in packets of two ounces and four ounces sold by the Agricultural Department to ryots as a fungicide, shall be exempt from the operation of the prohibitions and directions contained in the Indian Arms Act.

Training Course for Nurses

The Government have ordered that in the matter of admission to the Nurses' Training Course in Government Hospitals in the State, preference should be given to candidates who have completed the bifurcated course of studies in secondary schools with domestic science as their special subject.

Water Supply and Drainage Schemes

The following are the salient features of the Government's review of the report of the Sanitary Engineer to the Government of Madras for the year 1948-49:

Water-supply and Drainage Schemes: During the year under review, water-supply schemes were brought into commission in two municipalities. Sixty-two Municipal and Panchayat water-supply schemes were in operation during the year, as against 60 in the previous year. Seven Municipal drainage schemes were in operation during the year under review. No drainage scheme was functioning in any Panchayat. Twenty-three protected water-supply schemes were under execution in Municipalities and four in Panchayats. Six Municipal drainage schemes were under execution.

Water-supply and Drainage Committee: The Government have passed orders on all the recommendations of the Water-supply and Drainage Committee. While the Government have decided that the provision and maintenance of water-supply and drainage schemes in urban areas should continue to be mainly the responsibility of the local bodies concerned, they have agreed to liberalise the terms of grant-in-aid to the local bodies for these schemes to the effect that Government would provide the additional funds required for the installation of the schemes, after the resources of the local bodies concerned were tapped to the maximum.

The Government have also decided that water-supply and drainage schemes should be provided in the urban areas of the State within a period of twenty years. In pursuance of this decision, a plan for the execution of the municipal water-supply and drainage schemes, drawn up by the Sanitary Engineer, for the first five years beginning with 1949-50, has been approved by the Government. Orders have been placed for the bulk purchase of pipes for use on the urban water-supply and drainage schemes. A reserve stock of pipes is also being created for the purpose.

Public Health Engineering Department: The Government have further decided that as a preliminary to the formation of a separate Public Health Engineering Department, the work of execution of urban water-supply and drainage schemes should be transferred from the Public Works Branch to the Sanitary Engineering Branch and that the Sanitary Engineering Branch should be reorganised into an independent unit. Necessary additional staff has also been sanctioned for the purpose. The Government hope that as a result of these measures, better progress will be achieved, in future, in the execution of water-supply and drainage schemes in the State.

Training in Social Service

The Government have extended the course of study, from 10 months to 11 months, for the second batch of 30 candidates for social work in the three training institutes at Seethanagaram, Gandhigram and Madras City, run by the Women's Welfare Department.

Anantapur Municipality

The Government have reclassified the Anantapur Municipality from third grade to second grade with effect from March 1, 1950.

ANIMAL HUSBANDRY

34

animal husbandry on which some progress has been made. Enhancement of the nutritive value of rice straw by alkali treatment and by washing is an important discovery on the nutrition side. Research has also been done on the requirements of calcium and phosphorus for milch cattle and on the requirements of a balanced diet.

In the Veterinary Research Institute at Izatnagar, experiments on the subsidiary foods for cattle have shown that Mango seed, Kernel, Jamun seed, Bawar (*Casia tora*) seeds, Tamarind seeds, Munj, Kans, Kartiara, Bawar straw, Groundnut husk, Mahua flowers and Mahua cake, can well be utilised to increase fodder resources.

Artificial Insemination

Progress has also been made on the development of artificial insemination under conditions prevalent in this

MADRAS INFORMATION

country. The field centres set up to conduct research and to popularise the method have met with encouraging response from the cattle owners. The States are now proposing to take up this work on an extensive scale.

Veterinary Education

The Indian Veterinary Research Institute at Izatnagar which deals with fundamental research on animal husbandry and allied problems, is believed to be one of the best institutes of its kind in the world. It has arrangements for post-graduate training, a number of advanced courses in animal husbandry, poultry husbandry, animal nutrition, artificial insemination and on the manufacture of sera vaccines. There are nine veterinary colleges in States to train workers in veterinary and animal husbandry subjects. Most of these colleges award degrees while a few others have only a diploma course. An Advisory Committee to raise the standard of education on animal husbandry and agriculture and to have a uniform curriculum in all the colleges is being set up under the Indian Council of Agricultural Research.

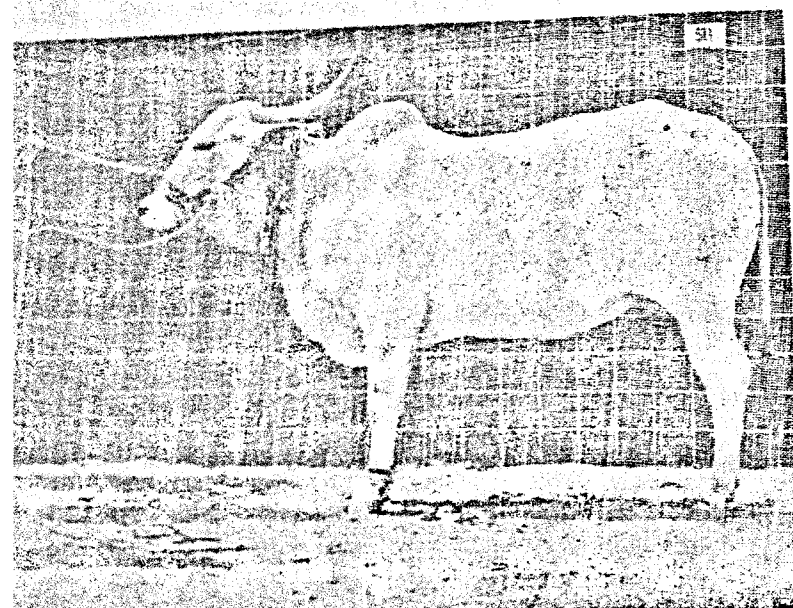
Review of Work in 1948-49

Reviewing the administration of the Animal Husbandry Department in 1948-49, the Government of Madras observe that they have noted with satisfaction the progress made in the implementation of the programme of work for 1948-49, outlined in the report for 1947-48. The following are the other salient features of the Government's review:

Madras Veterinary College: The total strength of the students of the Madras Veterinary College for the Degree Course and the Veterinary and Livestock Inspectors' Course rose to 390 during 1948-49, as against 299 in the previous year. The attendance at the College Hospital, the number of minor and major operations conducted, the examination of specimens in the Pathology, Parasitology and Physiology sections of the college laboratory were satisfactory. The number of veterinary institutions at the end of the year was 140, inclusive of the two institutions taken over from Pudukkottai and Banganapalle. One touring billet was opened at Chowghat in Malabar district.

Cattle Shows: A total of 102 stud bulls were maintained at the veterinary institutions for breeding purposes, as against 80 in the previous year. An improvement in the services performed by the stud animals was recorded during the year under report. The Madras City Calf Subsidy Scheme worked satisfactorily during the year. Major cattle shows were held at Ongole, Tiruppur and Valparai, as usual, and one-day cattle shows were conducted in 67 different places. Two rams, 58 ewes and nine lambs were purchased in March 1949 under the scheme for the salvage of white woolly sheep on the Nilgiris. The salvage of dry cows in the City of Madras continued to be satisfactory. Three District Poultry Farms were opened and the poultry development work showed steady progress.

Cattle Diseases Controlled: The beginning made in artificial insemination of cattle gave encouraging results and the extension of the scheme is under consideration.



Khillari cow

Malot cow



ANIMAL HUSBANDRY

35

MADRAS INFORMATION

Regional Transport Officers for Cuddapah and Anantapur

The Government have amalgamated the duties of the Area Rationing Officer and the Regional Transport Officer at Cuddapah. The Districts of Bellary, Anantapur, Cuddapah and Kurnool have been divided into two regions for transport administration and petrol rationing. The Regional Transport Officer at Anantapur will have jurisdiction over the Districts of Anantapur and Bellary, while that of Cuddapah will be in charge of Cuddapah and Kurnool Districts.

The new Regional Transport Officers will function also as Area Rationing Officers in their respective jurisdictions.

Adjustment of Excess Payments of Rents in Estates

Under Section 3 of the Madras Estates Land (Reduction of Rent) Act, 1947, the new rates of rent fixed under that Act in respect of ryot lands in an estate take effect from the commencement of fasli 1357 and a ryot is not bound to pay anything in excess of such rates. But on account of the delay in fixing the new rates of rent, the ryot has in many cases been deprived of the benefit of paying rent for the fasli year 1357 and the subsequent fasli years at the new rates of rent under the Act. It has been brought to the notice of the Government that in cases which do not fall within the scope of the Madras Tenants and Ryots Protection Act, 1949, landholders have taken action to recover rent at the existing rates under Section 77 of the Madras Estates Land Act, 1908, and have obtained decrees for amounts which are in excess of those payable according to the rates ultimately fixed under the Rent Reduction Act.

As the purpose of that Act in giving relief to the ryot from the commencement of fasli 1357 is nullified if a ryot is compelled by coercive process to pay rent at the existing rates, the Government have, in exercise of the powers conferred by Section 9 of the Act, directed as follows:—

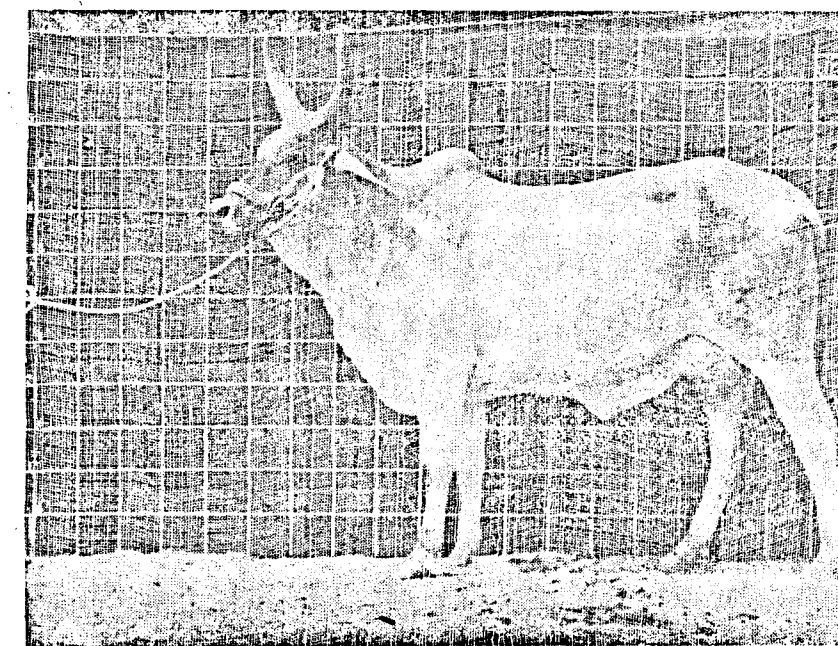
(a) if the decree has not been executed, it shall be amended so as to reduce the amount of rent awarded by it to that payable according to the rates fixed under the Rent Reduction Act;

(b) if the decree has already been executed for an amount exceeding the rent payable according to the rates fixed under that Act the ryot shall, on application to the Court, be entitled to obtain a refund of the amount paid by him in excess to the landholders, as if rent at the new rate is due from him for a subsequent period, to have it adjusted towards such rent; and

(c) in either of the cases (a) and (b) above, the landholder shall be entitled to obtain a refund of the court fee paid by him in excess, on a certificate issued by the Court.

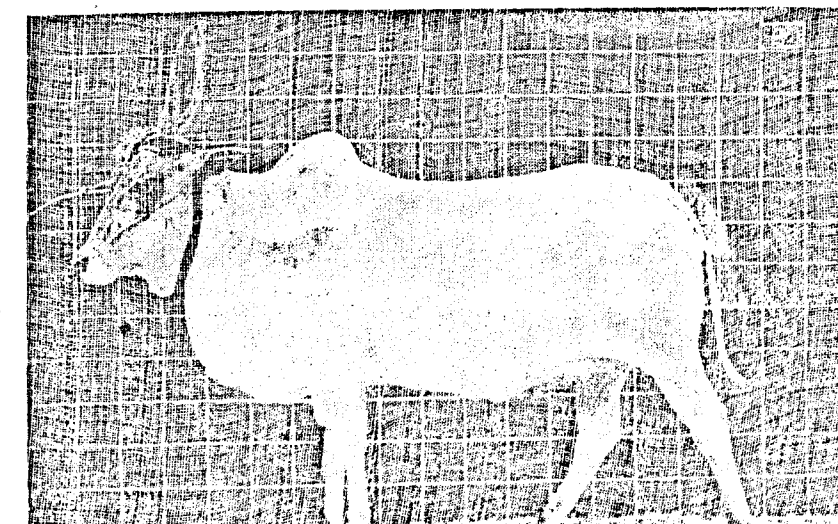
Advisory Committees for Aided Colleges: Previous Order Cancelled

The Government have cancelled the order, dated March 2, 1948, which advised the managements of aided colleges to constitute Advisory Committees. This action has been taken by the Government in the light of the views expressed on the subject by the Madras and Andhra Universities and the managements of the colleges.



Kankrej cow

Kanayam cow



Panchayat Raj

By SRI J. SIVANANDAM, Secretary, Local Administration Department

At present, Panchayats are governed by the Madras Local Boards Act, under which District Boards and their Presidents and the Inspector of Municipal Councils and Local Boards have dual control and power not only to intervene in the more important matters of administration but also in the day-to-day administration of Panchayats. Panchayats have therefore no autonomy in any real sense of the term. As the levy of taxes is optional under the Act, few Panchayats have supplemented the income derived from land cess by levy of local taxes, with the result that the administration of most of the Panchayats has been hampered by lack of funds and primary amenities to the people have been neglected.

The idea underlying the Madras Village Panchayats Bill is the development of village Panchayats into self-contained and self-governing units of local administration, invested with large and practically independent powers in all matters relating to village life and village economy, minimising outside control as far as possible, consistent with efficiency and integrity in working. The Bill is in effect the implementation by the Government of this State, of Article 40 of the Constitution of India dealing with one of the directive principles of State policy, namely, the State shall take steps to organize village Panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-government.

Organization

The working of the Panchayats under the new Act will be as follows:

Every village or hamlet with a population of 500 and above will have a Panchayat. Villages with less than a population of 500 will be included within the jurisdiction of an adjoining Panchayat or grouped with other contiguous villages and a single Panchayat formed for the group. The formation of Panchayats will be compulsory and will not be left to the option of local inhabitants or officials. It is expected that Panchayats will be constituted for all the villages within a period of three or four years from the date on which the new Act is put into effect. Panchayats with jurisdiction over a population estimated at not less than 5,000 and with an estimated annual income of not less than Rs. 10,000 will be called class I Panchayats; the rest class II Panchayats.

The strength of a Panchayat will range from five to fifteen according to a graduated scale, based upon population. All the members will be elected as at present on the basis of the Legislative Assembly rolls, relating to the area comprised in the Panchayat. The President will be elected not from among the members of the Panchayat as hitherto but directly by the whole electorate and will be an ex-officio member. The village headman as well as any other Government servant or servant of a local body is debarred from becoming a member of the Panchayat and any village headman holding office as member on the date of inception of the new Act will cease to hold office as member. His vacancy as well as the vacancy of member caused by the President becoming ex-officio member, will

be filled according to the necessity for making up the sanctioned strength under the new Act. The President, Vice-President and members will be honorary, as hitherto.

The reservation of seats for the members of the Scheduled Castes only will be continued for a period of ten years from the commencement of this Act. The seats already reserved for Muslims and Indian Christians under Section 9 (2) of the Madras Local Boards Act will be treated as general seats under the new Act and the members already elected for those seats will continue to hold office under the new Act.

Executive Authority

Panchayats will be divided into electoral wards subject to a minimum of two, for the purpose of election of members. The term of office of members and President will be three years from the date of occurrence of ordinary vacancies, as at present.

The President, where he is also the executive authority, and the executive officer in the case of notified Panchayats, will be bound to carry out all the resolutions of the Panchayat; when, however, the President is of opinion that a particular resolution should not be carried out, the executive authority shall refer the matter to Government whose decision shall be final and binding both on the President and the Panchayat. The President will be allowed to delegate any of his functions to the Vice-President. His powers will however devolve automatically on the Vice-President during the President's absence from the village for a continuous period exceeding fifteen days or when he is incapacitated.

Every member has the right to move resolutions, to interpellate the President on matters connected with the administration and to call attention of the executive authority to any neglect in the execution of Panchayat work or waste or misapplication of funds.

A President or Vice-President is liable to be removed from office for misuse or abuse of powers vested in him, defalcation or such serious misdemeanour. A member will be removed from office if he is guilty of any misconduct in the discharge of his duties. On removal from office, a President, Vice-President or member will be disqualified for election for one year. In the case of conviction by a court of law for an offence involving moral turpitude, he will not be eligible to stand for election for five years. A Panchayat which is not competent to perform or persistently makes default in performing the duties imposed on it by law or exceeds or abuses its powers is liable to be dissolved or superseded. During the period of dissolution or supersession, the President will exercise the powers and duties of the Panchayat and if there is a vacancy in the office of President a special officer will be appointed to perform these duties.

An executive officer will be appointed to large Panchayats the Presidents of which cannot give full time to running the administration and to Panchayats which are not administered properly, subject in all cases to the condition

that the finances of the Panchayat can bear the appointment. He will carry on the day-to-day administration of the Panchayat and put into effect the resolutions passed by it. He will be under the disciplinary control of the Inspector.

Scope and Functions

The village Panchayat will manage all the local institutions and deal with all matters-civic and administrative. It will be obligatory on the part of a Panchayat to attend to the construction, repair and maintenance of public roads in the village or connecting it with other villages and of all bridges and culverts on such roads, lighting of public roads and public places, construction of drains and the disposal of drainage water and sullage, cleansing of streets, removal of rubbish heaps, making provision for public latrines and cleaning them both whether private or public, opening and maintenance of burial and burning grounds, provision of protected water-supply, sinking and repairing of wells, ponds or tanks and to check measures preventive and remedial to safeguard public health.

In addition to the above obligatory functions, a Panchayat will be given certain discretionary powers to attend to the following items of work in the Panchayat:—

Planting and preservation of trees on the sides of the public roads in the village, opening and maintenance of public markets, control of fairs and festivals, opening and maintenance of public cart-stands, cattle-sheds, maintenance of public slaughter-houses, improvement of agriculture and agricultural stock and the holding of agricultural shows, promotion and encouragement of cottage industries, opening and maintenance of elementary schools, reading rooms and libraries, setting up and maintenance of wireless receiving sets, playgrounds and centres of physical culture, opening and maintenance of dispensaries and maternity and child-welfare centres and other measures of public utility calculated to promote the safety, health, comfort or convenience of the inhabitants of the village.

Civil and Criminal Justice

Over and above the obligatory and discretionary functions of Panchayats, they will also be entrusted with the function of administering civil and criminal justice. The work now done by Village Courts and Panchayat Courts under the Village Courts Act, 1888, will be taken over by the Panchayats and the Civil jurisdiction will be increased to Rs. 100. Executive officers of Panchayats, which are not the headquarters of registration offices, will be invested with powers of a Registration Officer in respect of documents that are clearly exempt from stamp duty and fees and documents of ephemeral nature in respect of property not exceeding Rs. 100 in value. They may execute kudimaramath (i.e., minor repairs to irrigation sources) in the villages to enable which the Panchayat may levy an acreage fee. Managements of all the unreserved grazing grounds, threshing floors, topes and other communal porambores in the village will also vest in the panchayats.

Panchayats will get their share of land cess realized in the village and the duty levied on transfers of property. The income from these items will not be sufficient to enable the Panchayat to run their administration efficiently and improve the condition of villages. Hence, in order that the Panchayats may have a stable income, a tax on houses (except huts), vehicle tax and profession tax will

be levied compulsorily. Besides, they will be allowed to levy at their option and subject to the sanction of the Inspector certain other specified taxes suitable and convenient to the village. The Government will not only continue to make *ex-gratia* grants to Panchayats but will set apart every year a minimum of 12½ per cent of the land State of the State, for distribution as grants to class II Panchayats on the basis of population. It is hoped that with the funds provided partly by Government and partly by the Panchayat doing its own taxation, Panchayats will be able to discharge the various functions cast on them by the Act.

Audit and Control

An audit of the accounts of every village Panchayat is to be conducted annually by persons unconnected with the supervision of their administration, i.e., by the audit staff working under the control of the Examiner of Local Fund Accounts. Panchayats will not be required to pay any fee from their funds for such audit.

The supervision and control of the village Panchayats is to be exercised by Government as at present through the Inspector of Municipal Councils and Local Boards assisted by Deputy Inspectors, District and Deputy Panchayat Officers. District Boards are no longer to have any control or supervision over village Panchayats. District Collectors will not have any control over the administration of Panchayats except for such emergency powers for ensuring safety of life and property and for prevention of breaches of peace, as are provided for in the existing Madras Local Boards Act, 1920.

When the new Panchayats come into being, there will be throughout the State, in every village a statutory body exercising wide powers, affecting every side of rural life, which, if it functions properly, should be able to increase the happiness, well-being and prosperity of our village people and look after their interests in every sphere of their life. It will only remain for the people to work the new Panchayats in a public-spirited manner so as to conduce to the largest measure of happiness and contentment. (By courtesy A.I.R., Madras)

Fees for Search in Record Office

The Government have prescribed the following fees for searches made in the records of the Madras Record Office regarding the date of birth, marriage, death, nationality, etc., of persons, applying to the Curator for such details:—

Rs. 5 for examining the records of each year prior to 1858;

Rs. 2 for examining the records of each year after 1858.

If it is only information that is sought, it will be furnished in the letter to the person applying for it. If typed extracts from documents have to be sent, fees will be charged. Any applicant desiring to have a certified copy of a particular document, will be required to pay copying fee and supply the stamp papers required. The fee for the search should be remitted in advance in cash, by money order or otherwise, to the Curator, Madras Record Office. If the information is traced without covering the entire period for which the fee is paid, the proportionate amount of fee will be refunded to the applicant.

The Year Book of World Affairs, 1950

The London Institute of World Affairs. (Edited by George W. Keeton and Georg Schwarzenberger)—Published by Stevens and Sons, London—Price 25s.

The Year Book is an annual symposium of studies in world problems. The contributions are from writers who are pre-eminent in their chosen field, and the articles, though on current themes, are dealt with in a factual and objective manner, rendering the substance of the book into an authoritative record of contemporary political survey, useful to any student of international politics and economics, who desires unbiased and balanced studies on present-day problems.

For instance, Dr. Gordon Ireland, an American professor, has contributed in the volume under review an article entitled "Uncommon Law in Martial Tokyo" in which, by applying correct legal principles to the facts and events of the trial of the top Japanese war criminals, he proves that the International Military Tribunal "could not apply international law and did not apply common law." Such a conclusion is particularly significant because Justice Radha Binod Pal of India, a member of the Tribunal, filed a very long opinion "dissenting totally from the majority on questions of law, aggressive war, evidence and procedure and conspiracy and war crimes in relation to prisoners of war and concluding that all of the accused ought to have been found not guilty on every count in the indictment and acquitted of all charges."

Dr. Ireland says: "Judge Pal's careful consideration of the possibility that some, if not all of Japan's activities in China were in fact self-protection against the boreal Communist drive, may, in the light of later events, be thought to have deserved more attention than his colleagues on the Tribunal granted it."

Another article which should interest Indian students of international affairs, is a study of the British Commonwealth by Dr. Hugh Shearman. The historic origins and growth of the Empire are traced from the days of Henry VIII, and the subsequent development of the Imperial possessions and the Colonial empire, the evolution of the Dominion system and the final emergence of the Commonwealth concept are chronicled in succinct succession. At every stage nuances in the meaning of the political terms in vogue are carefully studied, taking into consideration the implications in varying degrees of progress towards self-government. Constitutional changes after the passing of the Statute of Westminster (1931) led to further development towards the goal of free association of autonomous communities. While the birth of the new 'Dominions' of India, Pakistan and Ceylon are recorded, the Year Book was perhaps published too early to mention the greatest achievement in the Commonwealth system, the Republic with the Crown as symbol—a formula born of the Indian genius for compromise.

Other articles of interest in the Year Book include 'Sovereignty: Ideology and Reality', 'Law and Society', 'Post-War Treaties of the Soviet Union', 'Italy since the Year', 'Trieste under the U.N.', 'The Danube', 'The Study of International Economics', 'The European Recovery Programme', 'Truman's Point Four', 'Forestry

as an International Problem' and a stimulating review of current thought entitled 'Reports on World Affairs' from sociological, economic, geographical, psychological, educational, legal and institutional aspects.

THE NORTH ATLANTIC TREATY, THE BRUSSELS TREATY AND THE CHARTER OF THE UNITED NATIONS

By Sir W. Eric Beckett, London Institute of World Affairs—Published by Stevens and Sons, London—Price 10s 6d.

The North Atlantic Treaty, signed at Washington on April 4, 1949, is an extremely important instrument in post-war international diplomatic relations, associating as it does the Western Democracies of Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Britain and the United States, linked by their common distrust of the Central European Communist regimes behind the Iron Curtain. The Treaty forms a logical sequence to other piecemeal pacts in this direction, as the Treaty of Dunkirk (4th March 1947) between Britain and France, the Inter-American Treaty of Rio De Janeiro (2nd September 1947) between the United States and the Latin American countries, and the Brussels Treaty (17th March 1948) between Britain and the Benelux countries. In this slim volume of 75 pages, Sir W. Eric Beckett, Legal Adviser to the British Foreign Office, examines the relationship of the North Atlantic Treaty with the United Nations Charter, purely on the juridical aspects and with particular reference to the lines of criticism which attack the Treaty as being contrary to the concept of the U.N. Charter and overriding the Security Council by forming "regional arrangements". Beckett convincingly counters that the U.N. Charter endorses "the inherent right of individual or collective self-defence" till such time as the Security Council may take over. Beckett also claims that the Treaty aims at peace in a certain region, but is by no means a regional arrangement.

With its appendices, giving relevant extracts from the various treaties, and the pertinent articles of the U.N. Charter, the book should be a valuable reference volume, particularly if a Pacific Pact, on the lines of the Atlantic Treaty, is considered necessary to counter the threat of Communism in the Eastern Hemisphere.

PRINCIPLES OF SARVODAYA PLAN

Published by the Sarvodaya Planning Committee, New Delhi

Towards the end of 1949, two conferences of constructive workers were held at Wardha to formulate the guiding principles of the "Sarvodaya Plan" for the development of the 'whole' man as conceived by Gandhiji. The book under review, which lists the principles of the Sarvodaya Plan, can be taken as the manifesto of the orthodox section of constructive workers of the Gandhian school.

The Sarvodaya Plan bases its philosophy on the Gandhian concept of "an integrated and co-ordinated life, individual and group, social, economic, political and moral." The Mahatma believed that democracy "which implies rea-

National Savings for Welfare State

(Continued from page 1)

now been reorganised, and is intended to encourage all classes to save regularly, however small their savings may be, and to invest these savings in National Savings Certificates. These certificates are of every kind, and the rules are extremely simple. They yield a high rate of interest, they are free from income-tax, and can be easily encashed. They are available at all our post offices and can be replaced if lost or destroyed.

By buying these certificates you would be safeguarding your future and the future of your family and will be helping the public and the Government to fight inflation and to finance all those various schemes which are necessary to build our Welfare State in India. I would appeal to our citizens to take this long-term view, to do without a few things, which do not make much difference, and to invest those savings, for that will bring a larger real satisfaction.

You are helping not only yourself; you are helping not only the Government; but millions of your countrymen, whose needs we are striving to satisfy. If every individual in India puts by 3½ annas per month as savings, it is estimated that the State would get a 100 crore of rupees per year for their constructive programme. It is to every individual, therefore, that we make this appeal that they should realise the imperative necessity for savings as a duty they owe to the country and to their fellow citizens.

freedom to manage one's own affairs can effectively function only in small units." The Sarvodaya Plan therefore favours decentralised economy with co-operation replacing competition; proprietorship in agricultural land will vest with the tiller, and instruments of production in decentralised industries will be owned individually or collectively. A few centralised industries will be owned by the community and run by the State, public corporations or by co-operatives.

The book proceeds to elaborate on the theme of rural uplift so that the regeneration of village life might help to achieve the Sarvodaya ideal. In the political field, it is urged, organisation of village panchayats will serve to hasten "the glorious end of man's struggle through ages for harmony between the individual and the community." Likewise the Armed Forces will be replaced initially by the territorial force, and ultimately by a non-violent *shanti sena*. The Sarvodaya Plan also pleads for "a functional view of public finance", whence taxes may be paid in cash, kind and labour, land revenue being paid in kind.

The Sarvodaya Plan offers high ideals for people and Governments. While it may not be possible to throw overboard current institutions in favour of nebulous principles, it is obvious that any corrective, any compromise we may make in our present way of life with the Sarvodaya bias, will certainly lead to better social standards and purer political administration.

CO-OPERATIVE PLANNING IN BOMBAY PROVINCE

Issued by the Director of Publicity, Government of Bombay

On the lines indicated by the Saraiya Committee, the Bombay Government are applying the principle of co-operative effort in varied spheres of economic activities, both in rural and urban areas. This 36 page leaflet outlines the progress made in various developmental schemes such as extension of rural credit, regulation of markets and development of co-operative marketing, development of co-operative farming, rehabilitation and development of village, cottage and small-scale industries, co-operative housing and provision of facilities for training in theory and practice of co-operation.

The leaflet should prove useful to village workers, students of rural economics and sponsors of co-operative societies. —P.V.S.

Gift of Maternity Ward

The Government have accepted, under certain specified conditions, the offer of the Provincial Welfare Fund to construct a maternity ward of 20 beds in the Headquarters Hospital, Masulipatnam.

Betting on Horse Races

The Madras City Police and Gaming (Amendment) Act, 1949 (Madras Act VII of 1949) contains provision for prohibiting betting on horse races on and from a date to be notified by the Government. It was announced in April 1949 that the Government had decided to give effect to these provisions from 1st April 1950. The Government have since reconsidered the matter and have decided to enforce the provisions from 1st April 1951.

COLLECTIONS IN MADRAS

The total collections through small savings in 1948-49 were 27 crores, in 1949-50 about 26 crores and the Government expect to collect 28 crores during 1950-51. The following are the sales of National Savings Certificates in the State of Madras in the previous years:

1943-44—1.71 crores	1947-48—1.80 crores.
1944-45—2.36 "	1948-49—2.99 "
1945-46—1.80 "	1949-50—2.13 "
1946-47—1.79 "	(up to January 1950)

DISTRICT-WAR SALES OF NATIONAL SAVINGS CERTIFICATES FROM APRIL 1, 1949, UP TO DECEMBER 31, 1949.

Madras—5,099,120.	Anantapur—272,860.
Bellary—449,250.	Chingleput—231,675.
Chittoor—253,870.	Coimbatore—943,760.
Cuddapah—248,150.	East Godavari—554,590.
Guntur—902,140.	Krishna—504,645.
Kurnool—258,525.	Mathurai—939,095.
Malabar—1,307,808.	Nellore—391,005.
Nilgiris—443,965.	North Arcot—421,675.
Ramnad—281,360.	Salem—584,615.
South Arcot—366,465.	South Kanara—647,070.
Tanjore—1,246,960.	Tirunelveli—762,670.
Tiruchirappalli—1,039,935.	Visakhapatnam—649,469.
West Godavari—624,395 and Coorg—125,640.	

Coconut Jaggery and Palmyra Candy

By DR. C. C. JOHN, Director of Research, University of Travancore, Trivandram.

Jaggery is one of the many products of the coconut palm. Copra, coconut oil and coir yarn which are the other chief products of this palm owe their importance to foreign demand. Jaggery is an article of local consumption. Coconut jaggery is the unrefined sugar manufactured from the sweet juice drawn from the flower shoot of the coconut palm. It is usually sold in cakes, resembling a segment of a sphere and weighing ordinarily about two ounces each. The main uses of coconut jaggery are for making sweets and for condimenting tobacco.

In Travancore the manufacture of jaggery used to be entirely in the hand of the Ilavas who from time immemorial have been intimately connected with the growing of the coconut palm as well as with the industries connected with its produce.

It is not possible to say with any degree of definiteness when tapping for toddy was introduced here. It is at least as old as the drink habit of the people. The Ilavas are the class of people who have been carrying on this profession from very early times. Tapping is a somewhat complicated process requiring great skill and practice on the part of the tapper. The time for tapping is when the flower shoot of the coconut palm is tender. At this stage the sheath is gently tapped in the morning, noon and evening for four to six days from top to bottom in a spiral direction, and never in the reverse direction. Special care is taken not to reduce the flower buds inside the sheath to a pulpy condition, in which case the shoot becomes useless.

Tapping the Tree

In the process of tapping, the thickly packed buds inside the sheath get loosened, a certain amount of heat is generated and the flow of the juice is stimulated. After tapping for five to ten minutes, according to the size of the shoot, it is tied up at three or four places by the leaflets of the coconut frond, to prevent the sheath from bursting open, either due to the pressure of the juice inside or the heat of the sun. After four or five days the tip of the shoot is cut flat and besmeared with prepared clay. In two to five days more, the toddy begins to ooze out.

The tapper knows the appropriate time, but the appearance of bees, gnats and flies hovering round the cut portion of the shoot and the sour smell of alcohol are the surest indication of the exudation of toddy. The tapper then places an earthen pot on the shoot and provides a duct made of the leaflet of the coconut frond for the flow of the juice into the pot. Even after the juice has begun to ooze out, the shoot has to be cut afresh every morning, noon and evening and smeared with fresh clay, which not only assists the capillary action and draws up the toddy, but also prevents the shoot from drying up.

Implements Required

The implements required for tapping are: a tapping bone, the tapper's knife, two brushes, a bamboo tube

containing powdered rock for sharpening the knife, an earthen pot to gather the toddy from the shoot and another light vessel made of the leaf-sheath of the areca-palm or any other light material to collect the toddy as the tapper moves from tree to tree.

The tapping bone is about twelve to sixteen inches in length and about two inches in diameter. It is usually the forearm bone of either the bison or the sambur that is used. In exceptionally rare cases, sticks of hard and heavy wood, such as the heartwood of tamarind or ebony tree, are also used. Traders in touch with the hill districts bring the bones from the forest and sell them to the tappers. They are first cleaned and cured, and the cleaned narrow hole is filled with an oil, the preparation of which is a speciality known only to a few people even among the tappers. A unit of oil contains:

- 4 ozs. of cow's ghee,
- 1 oz. of pig's fat,
- $\frac{1}{2}$ oz. of peacock's fat, and
- 1 oz. of coconut oil prepared by the boiling process.

This mixture is boiled over a slow fire till it turns brown "the colour of the cobra's eye," to put it in the tapper's language. Much superstitious veneration is attached to this oil and it is still regarded as a sacred thing. The object of filling such a heavy oil in the bone appears to be to improve its keeping quality and to produce a lubricating effect in the course of tapping, when tiny particles of the oil may ooze out through the pores of the bone. In the case of wooden-tapping sticks, holes are bored in the centre and filled with oil. Whatever may be the scientific effect of the oil on the tapping, it is a firm conviction of the tappers that without it toddy could not be drawn out fully and the flower shoot would wither up. Once a month the oil in the bone is changed.

The Tapper's Knife

The tapper's knife which resembles the butcher's chopping knife in shape, is about six inches long and four inches broad and has a short handle. The blade is made of tempered steel and is very sharp. It is with this knife that the flower shoot is cut. As only a tiny portion of the shoot (about two mm. thick) has to be sliced off every time, the knife must be very sharp. It must be sharpened every time after it is used, and for this purpose the tapper carries with him some rock powder. The stalk of the coconut frond is his whetting-stone and he does the sharpening when he is at the top of the tree just before he begins his operations.

Clay, for smearing on the cut surface, is prepared by grinding it and sometimes even by sedimenting it to remove all grit. Great care is taken to keep it wet always. The tapper carries a small quantity of it in a clean coconut shell which forms part of his kit.

Brushes are made of the stalks of the coconut frond. Two of them are generally required, one for smearing the clay on the shoot, and the other for smearing lime in the

pot in which the toddy is collected. The object of smearing lime is to prevent the fermentation of the juice.

Boiling and Moulding

After the toddy is drawn it is boiled and allowed to cool, when all the suspended particles settle down. The clear liquid is decanted into another vessel and the sediment is thrown away. In this condition the liquid is non-intoxicating and is an excellent beverage, sweet and pleasant smelling, known locally as *akkani*. It is from this liquid that jaggery is manufactured. For this purpose it is further boiled in large earthen pots over a slow fire, until the liquid becomes viscous, something like honey. At this stage, it is known as *pani* and is used for preparing sweets and pudding; *pani* is a delicacy, especially at Syrian Christian feasts.

The *pani* is further boiled down until it assumes the form of treacle and then it is poured into small moulds made of coconut shell. The time when the substance is ripe for moulding is best known to the housewife who prepares the jaggery. If too early it will not form a mould, and if too late it will become too hard. The arrangements for moulding the cake is very simple, though primitive, but is singularly natural and practical. The upper half of the coconut shell which contains the "eye" is bored through and temporarily closed with dry leaves. The treaclelike jaggery is poured into the shell and when it has cooled and solidified, it is pushed out by pressing it through the hole.

Popularising Jaggery

Rapid changes are taking place in the habits and tastes of the people. Coffee and tea have become household

beverages, many of the preparations in which jaggery is used are slowly going out of fashion, and sweets prepared with refined sugar are taking their place. Some people also consider it beneath their dignity to eat jaggery and even seem to detest its flavour. It is as much the change in the taste of the people as the competition of cheap imported sugar that has affected the local coconut jaggery industry and contributed to its decline.

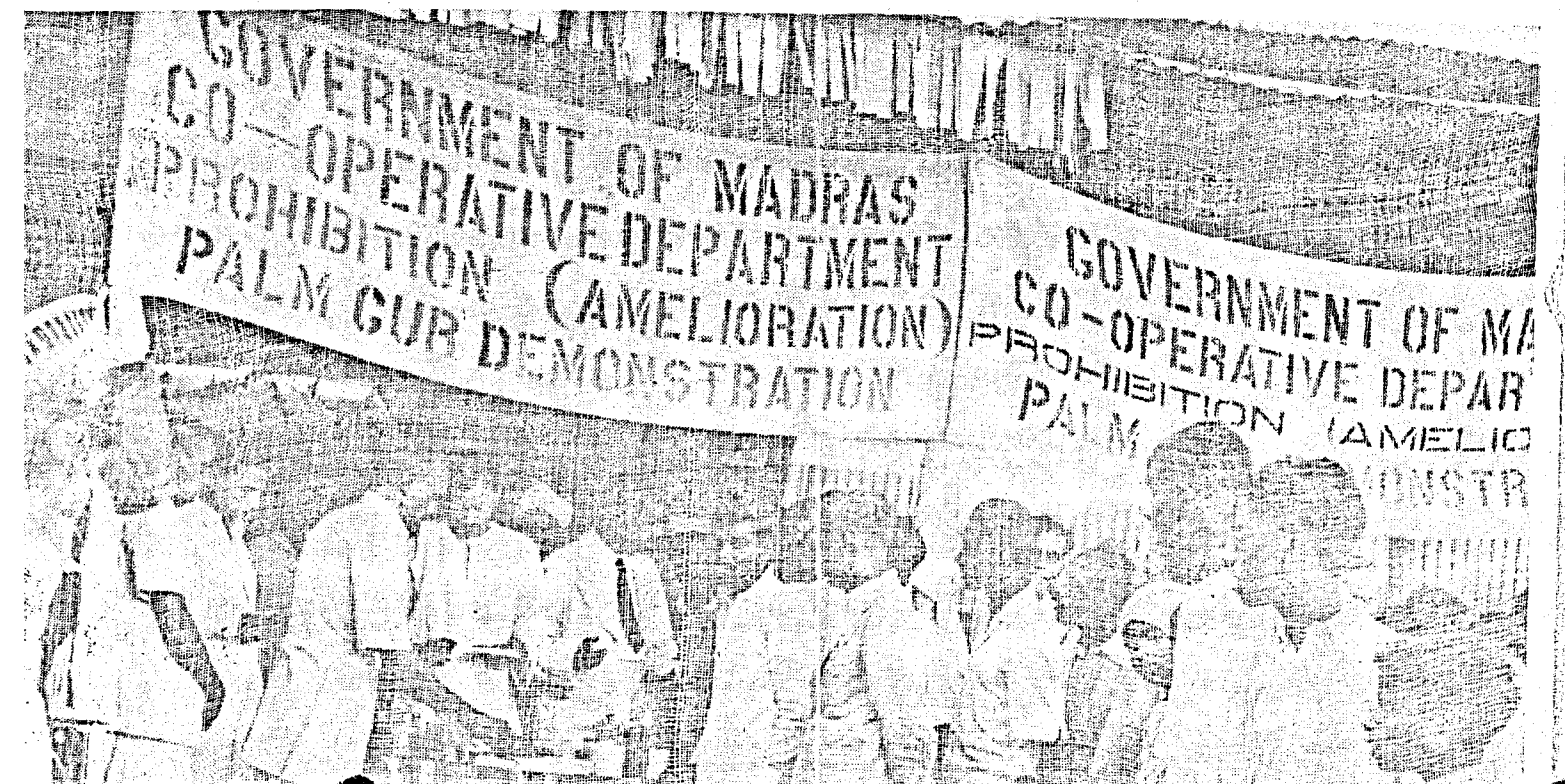
Education, if it is to have beneficial effects upon society, must become universal and practical. As at present imparted it makes the youth look down upon manual labour and detest the profession of his parents. The social changes which are being brought about by the present system of education have resulted in the dislocation of the tapping industry.

Though there is only a limited market for jaggery in its present form, it is possible to create a large demand for it by placing it in the market in forms suited to modern tastes and requirements of the people. Jaggery converted into caramels sprucely trimmed and well dressed, will find a sale in fashionable circles. If jaggery as such cannot compete with sugar, in the form of caramels it certainly can with caramels imported from outside. What has to be done for the rejuvenation of the industry is to organise it on modern lines and place the article in the market in suitable forms. This can best be done through co-operative organisations.

Brown Sugar from Palmyra

The palmyra sugarcandy is the brown crystallized sugar of the sweet juice of the flower shoot of the palmyra palm, much in demand for preparing sweet foods for children and Ayurvedic drugs. It is generally believed that it has

Sri N. Sanjeeva Reddi, Minister for Prohibition, and Sri J. C. Ryan, Registrar of Co-operative Societies, at the Palm Gur Demonstration held at the Congress Exhibition, Madras



none of the defects of refined cane or beetroot sugar, and that, on the other hand, it has exceptional cooling properties. It is largely used in the diet of small-pox patients. The manufacture of sugarcandy, locally known as *panam-kalkandu*, was once a flourishing industry in South Travancore, especially in Agastheeswaram and Rajakkamangalam, but is now practically extinct. It is still being carried on in the adjoining Tirunelveli District and Travancore obtains its supplies from there.

Sugarcandy is manufactured from the sweet toddy of the palmyra palm. The process of the extraction of toddy is slightly different from that of the coconut toddy. The palmyra palm flower shoot is harder than that of the coconut palm and the juice has to be squeezed out of it by wooden clamps. In all other respects the method of extracting sweet toddy from the palmyra palm and the coconut palm is practically the same.

Toddy is first boiled, and when it reaches a certain stage it becomes a thick viscous brown liquid. This is called "padini." The sugar in the sweet toddy or in the *padini* is not crystallisable. The stage at which boiled sweet toddy will form crystals is when it contains the viscosity of the ordinary syrup. Then it is poured into new earthen pots, and an indigenous plant known by the name of *Sivanar Korandi* (*Indigofera aspalathoides*) is placed in the liquid to serve as a nucleus for the formation of crystals. It is interesting to note that without putting this shrub into the liquid, the crystals will not be formed, however long it may be kept. The plant also prevents the fermentation of the liquid.

It was in places such as Rajakkamangalam, Agastheeswaram, where this plant thrives well, that the manufacture of palmyra sugarcandy was being carried on. It is remarkable that the people though uneducated in the modern sense, knew the principle of crystallisation. Generally, the manufacturers, whose dwellings are only small huts with no storage room or cellar, bury the pots with their contents in the ground for keeping them undisturbed. In the course of five to six months crystals are formed round the plant. They are then shaken down, gathered, washed in sweet toddy, dried in the sun and packed in earthen pots.

The Second Year (in Tamil)

This book gives an authentic and authoritative account of the activities and achievements of the Government of India in all spheres of administration for the second year from August 15, 1948, to August 15, 1949.

PROFUSELY ILLUSTRATED

PRICE RUPEE ONE

Tamil translation by the Department of Information and Publicity, Government of Madras.

Copies can be had from the Superintendent, Government Press, Mount Road, Madras.

Tea-time Recipes

BHAJJIES

Ingredients.—Besan $\frac{1}{2}$ chatak; sweet potato flour $\frac{1}{2}$ chatak; onions 2; potatoes 2; chilli powder to taste; zeera powder for flavour; salt to taste; soda bicarb one pinch.

Method.—Sieve the flour together, add salt, chilli powder, zeera and soda bicarb and make thin batter, leave aside for half an hour. Peel and cut the potatoes and onions into thin rounds and salt them. Dip each piece in the batter and fry, in hot ghee, to light brown and serve hot with tea. (Besan is Bengal gram flour.)

BADAS

Ingredients.—Chana dal 4 chataks; sweet potato flour $\frac{1}{2}$ chatak; defatted groundnut flour $\frac{1}{2}$ chatak; green chillies 6; onions (medium size) 2; salt to taste.

Method.—Pick the dal and soak it overnight, wash well and grind it, adding zeera and salt. Add the sweet potato flour and groundnut flour to the ground dal. Cut the onions and green chillies into small pieces and mix them in the dough. Divide the dough into small balls, shape them into flat badas and fry till they are brown.

MATTHI

Ingredients.—Sieved wheat atta 4 chataks; sweet potato flour $\frac{1}{2}$ chatak; defatted groundnut flour $\frac{1}{2}$ chatak; ghee to mix in the dough $\frac{1}{2}$ chatak; salt to taste; ajwan for flavour.

Method.—Sieve the mixture of flours, add $\frac{1}{2}$ chatak of melted ghee, salt, powdered ajwan and mix well. Make a soft dough of the mixture and leave it aside for an hour to soak. Knead the dough well and divide into small balls. Roll each ball into a thin round chapati. Cut into half and fold each half and fry till crisp.

COCONUT AND DEFATTED GROUNDNUT FLOUR TOFFEE

Ingredients.—Fresh coconut $\frac{1}{2}$; groundnut flour one chatak; gur 2 chataks; ghee 2 to 3 tolas.

Method.—Grate coconut; roast groundnut flour till it gives good flavour. Make a syrup of the gur, filter it and cook it till it sets when cooled (i.e., test it by putting a drop or two of the syrup in a cup of cold water); when it is ready, add the grated coconut, cook for five minutes and then add the roasted groundnut flour and mix well. Add ghee, let it cook for two minutes and then turn it on a greased slab and roll it to $\frac{1}{4}$ " thick and cut into squares or diamond shapes; serve when cool. This will make nearly $\frac{1}{2}$ lb. toffee.

(NOTE.—One chatak is equal to about five tolas)

Retail Price of Cube Sugar

The Government of India have directed that the retail price of cube sugar in the Indian Union should not exceed eleven annas per lb. when sold in one lb. packing, and nine annas and nine pies per lb. when sold in 5 lb. packing.

Egg as a Protective Food

Eggs have an important place in our daily diet as they are of high nutritive value. Nutritionists recommend an egg a day or 30 dozen per year per capita for optimum nutrition.

An egg is an undeveloped chick, containing the nutrients needed to develop a healthy chick and therefore contains the nutrients necessary for growth. It is an important source of high-quality food to man. Eggs have been rightly compared to "treasure houses wherein lie locked up angels' alchemy, milk and hair and blood and bone."

A hen's egg of average size weighs about 2 oz. the weight being distributed approximately as follows: shell 12 per cent, white 50 per cent and yolk 30 per cent. The shell consists almost entirely of carbonate of lime. As the process of hatching goes on, it loses some 9 per cent of its weight by absorption.

The protein of white of egg is called egg albumen. The white contains small amount of riboflavin and also avidin, a substance which renders biotin, a member of the vitamin B complex, unavailable. Avidin is destroyed on heating.

The yolk is the chief storehouse of nutriment for the young chick and consequently has a very different composition from the white. The proteins of the yolk are vitellin and livetin, present in the proportion of 3.5:1. The yolk contains much less water and more solid matter; the latter contains a large proportion of fat.

Food Value

The importance of egg as a food is based on several factors:

1. *Well balanced.*—Eggs are classified under protective foods because they are rich in well-balanced proteins, in vitamins and in essential minerals.

2. *Rich in high quality proteins.*—Egg protein contains all the ten amine-acids considered indispensable for growth, tissue repair and other body functions. Because of this it is called a balanced protein, being similar to milk protein. Egg protein is usually easily and completely utilised. Egg yolk protein is not much affected by cooking.

3. *Rich in easily digestible fat.*—Fat in eggs is present in an emulsified form which renders it readily digestible not only by adults but even by children and infants. Egg fat is rich in phosphorus and in essential fatty acids. It is also the carrier of many of the vitamins present in the egg.

4. *Excellent source of vitamins.*—This is particularly true of vitamins A, D and riboflavin. Egg yolk is a very rich source of vitamin A, containing about 2,200 I.U. per 100 gms. (of which about 1,000 Units are in the form of caroten). As a natural source of vitamin D, egg yolk is second only to fish liver oils. It is also a good source of riboflavin which is the only vitamin found in appreciable amounts in egg white. Egg yolk is also a good source of other members of the vitamin B complex.

5. *Important source of minerals.*—The iron content of eggs is relatively high in comparison with other foods and is in a readily available form. Most of the iron is stored in the yolk. Eggs are also rich in calcium and phosphorus.

6. *Useful in special diets.*—Eggs are generally popular, especially if prepared and served in an attractive manner. Eggs are easily digestible, especially if they are taken raw. Physicians frequently prescribe eggs in the diets of invalids. Eggs are an important item in the diet of expectant and nursing mothers and growing children.

7. *Useful in preparing various recipes.*—Eggs are useful in cookery. They can be served either alone or along with other foods. Eggs have a lightening effect in the preparation of cakes and pastries.

Our Daily Requirements

One egg of average size weighing 2 oz. contributes the following nutrients to our daily food requirements:—

Food nutrients.	What one egg contains.	What one egg contributes to the average percentage daily requirement of an adult.
Calories ..	98 ..	3.4 per cent.
Proteins ..	7.5 gms. ..	9. per cent.
Calcium ..	0.034 gm. ..	4 per cent.
Phosphorus ..	0.124 gm. ..	10 per cent.
Iron ..	1.241 gm. ..	5 per cent.
Vitamin A, including caroten.	1.241 I.U. ..	35 per cent.

Thus, a single egg supplies from 3 to 35 per cent of the daily requirements of many of the essential nutrients that are likely to be deficient in our average diet.

The composition of the edible parts of egg (white and yolk together) may be compared with meat thus:

Composition.	Egg.	Moderately lean meat.
Water ..	73.7	73
Protein ..	14.8	21
Fat ..	10.5	5.5
Mineral elements.	1.0	1.0
Calorie value ..	158	137

Thus, eggs are as nutritious as meat; though meat has a higher protein content, eggs are richer in vitamin and fat content. Finally, eggs are a good supplement to a predominantly rice diet.

Eggs being selected weighed and graded at a Poultry Farm



CO-OPERATION

43

MADRAS INFORMATION

Directors or the paid staff. Milking in villages is done in sheds constructed for the purpose. The Union pays Re. 1-1-0 per Madras measure of milk to the feeder societies. The societies keep a margin of 3 to 6 pies per measure, for meeting contingent charges, small remunerations to the office-bearers and the balance is paid to the members who supply the milk.

Facilities to Societies

The Milk Supply Union affords many facilities to its constituent societies and members thereof. Cattle-feed up to 75 per cent of the value of milk supplied to the Union is supplied to the members of the societies. They are also given interest-free loans provided by Government for the purchase of milch animals.

Catering to Hospitals

The Union supplies milk to the Government Hospitals in Madras City since 1929. All the State hospitals in the City consume 1,500 Madras measures or 6,000 lb. of milk a day; hotels and other institutions get 1,500 measures a day and the balance of 4,000 measures are supplied to residents of Madras City through thirty cycle boys. The Union charges Re. 1-4-8 per measure of milk to regular customers who have to purchase the coupons in advance from the Office at Ayanavaram. For special orders the Union charges Re. 1-6-0 per measure. Other milk products like Kova is sold at Rs. 6 per viss.

Special Staff

The Government of Madras have granted a further loan of Rs. 50,000 for purchase of vans by the Union for transport of milk. A special staff comprising a Co-operative Sub-Registrar, five senior and six junior Inspectors have been employed at Government cost for supervising milk supply societies and increasing their output. In order to render prompt veterinary aid to the animals maintained by the members, Government have appointed a District Veterinary Officer exclusively for the Union. He has under his control three Veterinary First Aid Posts at Basin Bridge, Ayanavaram and St. Thomas Mount. A mobile veterinary unit rushes to aid villages in case of outbreak of any disease. When the animals purchased by members from Government loans die on account of contagious diseases, the Government have agreed to waive to the extent of the loans outstanding against members at the time of death of the animals.

Model Dairy Farm

The Union is running a Model Dairy Farm at Government House, Guindy. All the animals which were the property of the Government House and which are of pure Simsbury breed, are maintained by the Union. The Union is provided with cattle-sheds, grazing facilities and farm yards within the Government House. The Union caters to the dairy requirements of the Government House, Guindy.

Salvage Farm

A salvage farm for dry animals is maintained at Vattambedu under the auspices of the Union. The dry animals are gathered at a central place in the City kept under observation for a few days. After protecting them by inoculations the animals are despatched to the Farm. A good stud is on the farm to serve these animals. The owners of the dry animals are charged a small fee out of which lease for the land is paid. A stockman-compounder and a Senior Inspector of Co-operative Societies are in charge of this scheme.

The Union earned a profit of Rs. 25,197-15-6 in the year 1948-49. The amount to the credit of the Reserve Fund at the end of the year 1948 was Rs. 39,705-8-0. The total amount under Reserve Fund was invested in the debentures of the Central Land Mortgage Bank.

From Udder to Consumer

The process through which the milk passes after leaving the udder of the animal to the consumer in the City is well organised and hygienic in condition. In the feeder society an animal is milked by a milkman who washes both his hands in antiseptic water before the personal supervision of the supervising staff of the Society. The animal is milked in a clean yard. The milk is tested by lactometer and then weighed, canned, sealed and loaded in the vans sent round by the Union for collection of milk. On receipt of milk at the Union premises, it is again tested, filtered and weighed, after which the milk passes into the pasteurising plant and finally poured into cans and sealed, ready to be despatched to consumers in the City through lorries and cycle boys. The cans are sterilised before use.

These comprehensive duties and functions of the Milk Supply Union have earned a good reputation for the Union which sets an example to be copied by other Co-operative Unions in the State and elsewhere.

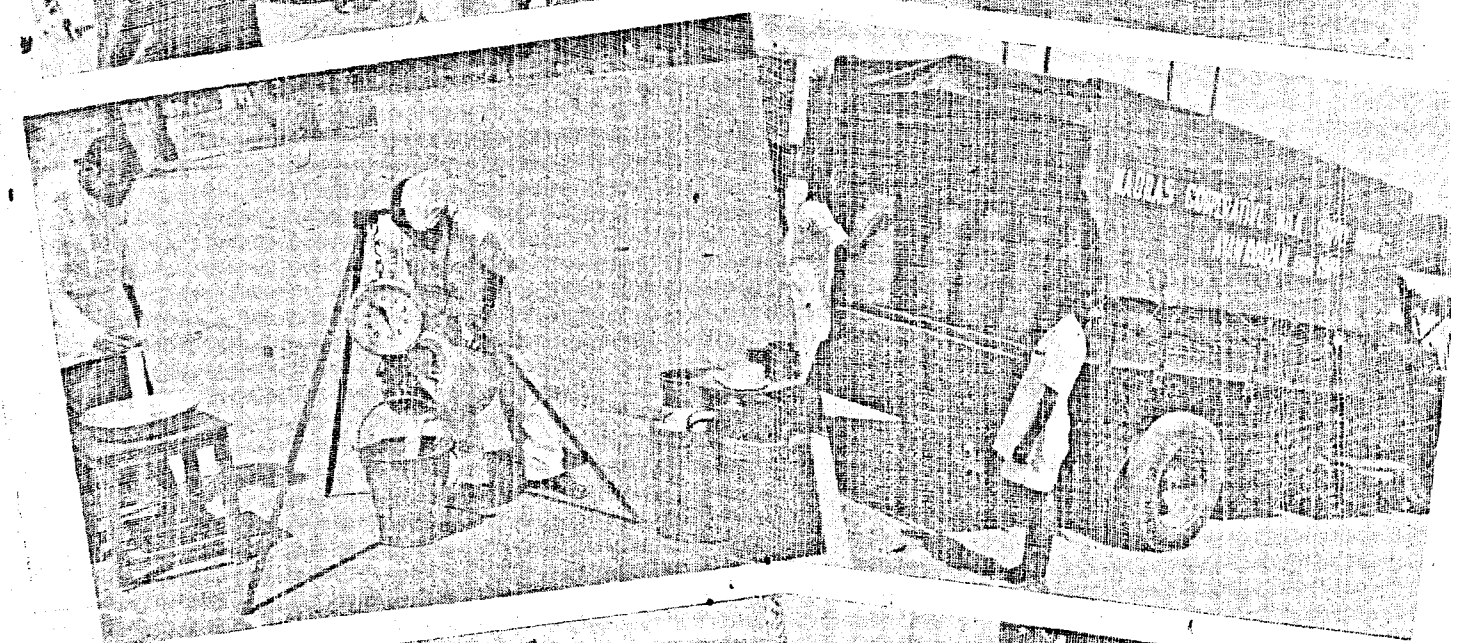
FROM COW TO CONSUMER

(Work at the Ayanavaram Union in pictures—third and fourth cover pages)

At a feeder society, the milkman washes his hands in antiseptic solution (1), and then milks the cow (2). The milk is tested and weighed (3) and the sealed cans loaded in a truck (4). The milk is brought to the Ayanavaram Union (5) and retested (6).

At the Union the milk is filtered (7), poured into a vat (8) and then pasteurised (9). The processed milk is next canned and sealed (10), loaded on delivery trucks (11) and finally reaches the consumer (12).

COLLECTING THE MILK FROM A FEEDER SOCIETY



Providing Houses for Yemmiganur Weavers

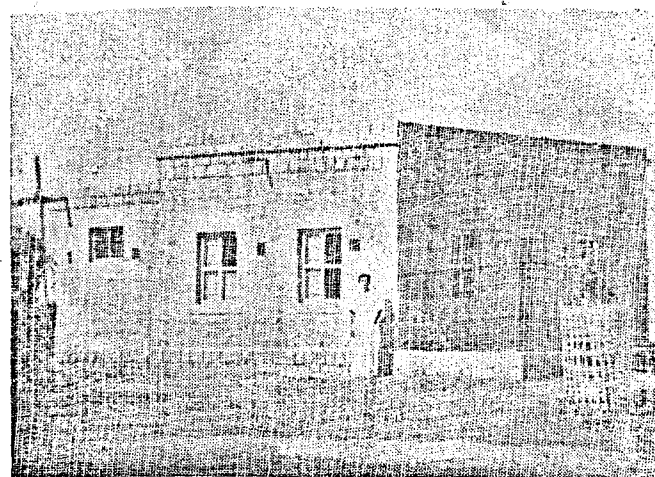
The Yemmiganur Weavers' Co-operative Production and Sales Society in Bellary District is the biggest of its kind in the State. It was registered on 27th June 1938 and started to work on 29th September 1938 with 176 members and an initial share capital of Rs. 1,328. The main objects of the Society are to improve the economic conditions of the members and to provide them continuous work. During the last twelve years of its working, the Society has more than fulfilled these objectives through the able guidance of its President and other Directors.

There are now 1,722 members on rolls with a paid-up share capital of Rs. 85,343 and 1,719 looms working under its control. Besides, the Society has a Reserve Fund of Rs. 2.99 lakhs, Building Fund of Rs. 2.18 lakhs, price fluctuation fund of Rs. 80,000 and other reserves of Rs. 11,000. It earned a net profit of Rs. 49,949 for the co-operative year ending 30th June 1949.

The achievements of the Yemmiganur Weavers' Co-operative Society are manifold in character. It is running a small handloom factory with 18 framelooms for the production of improved varieties of handloom fabrics like bed-sheets, sofa covers, shirtings, coatings, etc. There is a good demand for these fabrics. The Society also gives training to weavers in the use of labour-saving appliances and in evolving elegant designs. It has a dye factory to ensure supply of dyed yarn of quality to its members and a printing section for the printing of cloth. It has also got a hand calendering section to calender bleached goods such as dhooties, towels and plain shirting. The Society has also recently decided to open a stitching section to prepare readymade garments and to introduce automatic looms. Free medical relief, clothing and books are provided to the members and their children from out of the Common Good Fund. Few institutions of its kind in the country can be compared to the Yemmiganur Weavers' Co-operative Society in the variety of its achievements.

Housing Scheme

Many of the members of the Society do not own decent houses. They live in small ill-ventilated houses amidst insanitary surroundings. To provide them with dwelling houses in healthy surroundings built on hygienic principles, the Society has embarked on an ambitious housing scheme. The Government approved the scheme, which is intended to provide housing accommodation for 400 weaver families, and accordingly acquired a site of 53.25 acres for the purpose and handed it over to the Society on 30th May 1949. The layout plan was prepared and approved by the Director of Town-Planning, Madras, providing for 152 houses for members and 20 houses for employees with necessary amenities like playgrounds, roads, wells, park, radio-house, gardens, rest-house and main office building with a dye house, weaving factory and printing section. The total estimated cost of this plan is Rs. 7.5 lakhs. To enable the Society to carry out this important project, the Government sanctioned a loan of Rupees two lakhs recoverable in 20 equated annual instalments with interest at 3½ per cent. The balance of the requirements of the scheme is to be met from the funds of the Society. Steps

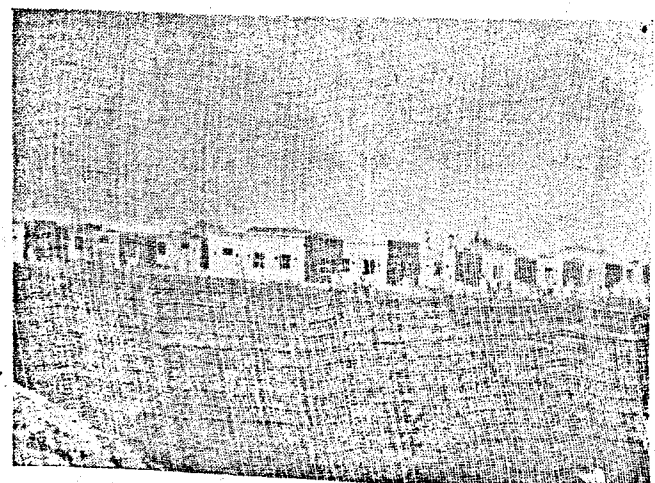


A model house at the Yemmiganur Weavers' Colony

are being taken to acquire for the Society another 50 acres of land, adjoining the present site, to provide house-sites for more houses.

The foundation stone of the first house of the proposed colony was laid on 8th October 1947 by Sri J. C. Ryan, Registrar of Co-operative Societies, and that of the main office building was laid on 12th August 1949 by Sri H. Sitarama Reddi, Minister for Revenue and Labour. Construction work is progressing. Out of the first block of 100 out of the 152 houses originally proposed to be constructed on the 53.25 acres, 58 houses have been either completed or are near completion.

Over five hundred trees have been planted along the roads of the colony and two wells have been sunk for the use of the colonists and the office. The Society has also purchased a lorry for the quick transport of materials and to facilitate work connected with the construction.



Distant view of the Yemmiganur Colony

Co-operative Union Ensures Sound Milk Supply

It is common knowledge that milk is the most nutritious and important source of food for mankind. Its special value to a majority of Indians is evident from the remarks made by the Public Health Commission with the Government of India. "In the first place, a large section of the population is wholly vegetarian by means of milk and milk products. Secondly, as milk also contains most of the important mineral salts and vitamins, an increase in its consumption will help to correct existing deficiencies in these directions in the Indian diet." Milk consumption is not a luxury but a necessity. It is consumed by all human beings irrespective of age, and by all classes of people in one form or other in varying quantities. Careful experiments have proved beyond doubt that the addition of a pound of whole milk per day to the ordinary diet of boys has invariably resulted in a marked increase of their heights and weights. Statistics show that India possesses about one-third of the world's cattle population and the output of milk is about 800 million maunds. Notwithstanding the fact that India is second in the volume of milk production of the world, next to U.S.A., the production of milk per capita which is 5 oz., is far below the average of other countries.

Problem of Supply

Even though the general position of milk is unsatisfactory, the problem of production and supply in towns and villages is more complicated. The rudimentary aspect of this problem is the economic factor, intertwined with several other difficulties. In towns men of limited means own the majority of the milch cattle. They are at once the producers and distributors as well. Limited accommodation and unhygienic sanitary environments of the places where cattle are kept tell heavily upon the health of the animals who go dry earlier than expected, and their milk gets contaminated with germs detrimental to human health. It is difficult for the municipal authorities with their limited income and still more limited staff to accommodate and effectively supervise the large number of cattle scattered throughout the city. In rural parts the production of milk is carried on in a small scale and in scattered homesteads, as it is not an industry here but only a sideline of agriculture. The average milk production in the villages of this State is ten measures a day.

Dairying, on the whole, is not a paying industry in this State. Poor quality of breed and poorer variety of fodder are mostly responsible for the sorrowful performances of these milching animals at the pail. Deficiency in quantity is made good by adulteration which an honest dairy cannot afford to copy. Apart from this, the purchasing power of the consuming public is very low. Hence private individuals fight shy of investing their capital in dairy farms.

Supply through Co-operation

Under the aforesaid circumstances, it may be possible to take up the milk producing industry only with Government aid. In this context the most suitable agency for

tackling the problem would be the co-operative organisation comprising owners of milch cattle. A co-operative organisation ensures not only a fair return to the owners but also the supply of good and whole milk to the consumers at a lesser cost by eliminating a number of idle intermediaries.

The suitability of a co-operative institute taking up the milk supply in urban areas is doubted in certain quarters. There are many instances that prove that the supply of milk through co-operative organisation has achieved a marked improvement in quality and supply. The Madras Co-operative Milk Supply Union Ltd., Ayanavaram, is a solid example of such a success in Madras City.

Objects and Functions

The Madras Co-operative Milk Supply Union is a huge organisation catering to more than one-fourth of the total need of milk in the City. The Union was started by Diwan Bahadur K. Deivasikamani Mudaliyar in December 1927. The main object of the Union has been the purchase and disposal of milk and milk products of its members, handled under perfect sanitary conditions at a reasonable cost to the urbanites of Madras. The Union desired to establish a model dairy farm and a modern dairy plant for pasteurising milk, to own or lease pasture lands and maintain dry animals of members and supply cattle feed at moderate rates. The Union had at first four societies and 15 individuals as its members. The quantity of milk supplied during the first year was 17,408 Madras measures. Since then there has been a steady progress in its business and at present the Union handles 7,000 Madras measures per day. One hundred and ten societies covering about 250 villages adjoining Chingleput District and around Ayanavaram are feeding the Union with 5,500 Madras measures of milk a day. One thousand five hundred Madras measures of milk a day are collected from individual members.

Building and Equipment

The Madras Co-operative Milk Supply Union Ltd., has at present its own spacious buildings at Ayanavaram within the extended limits of the Madras Corporation covering a site of nearly eleven acres, surrounded by a picturesque environment. There is a flyproof shed as well as a storehouse for cattle feed, and a spacious milking yard is provided to milk animals. In the course of its working, the Union found that pasteurisation was a necessity to supply disease-free milk to the public and to avoid milking the animals at untimely hours. With the loan of Rs. 25,000 from the Government of Madras and its own resources, the Union erected a pasteurising plant at a cost of about a lakh of rupees in 1939. It is estimated that the average cost of pasteurising the milk is about 12½ pies a measure.

Milking at Societies

The milking at the feeder societies of the Union is done under the expert supervision of the Societies'