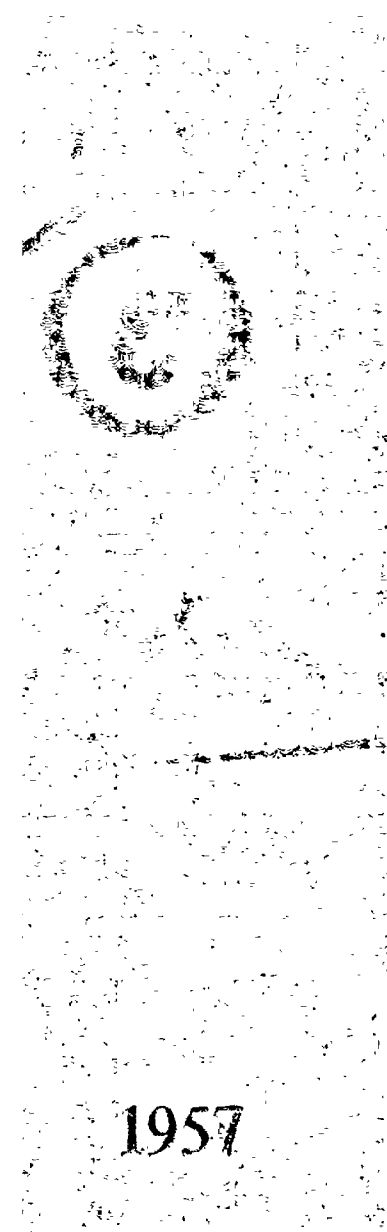




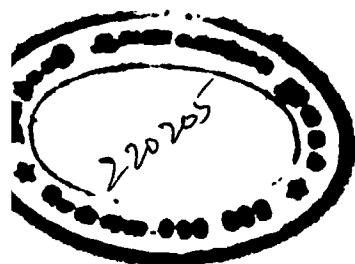
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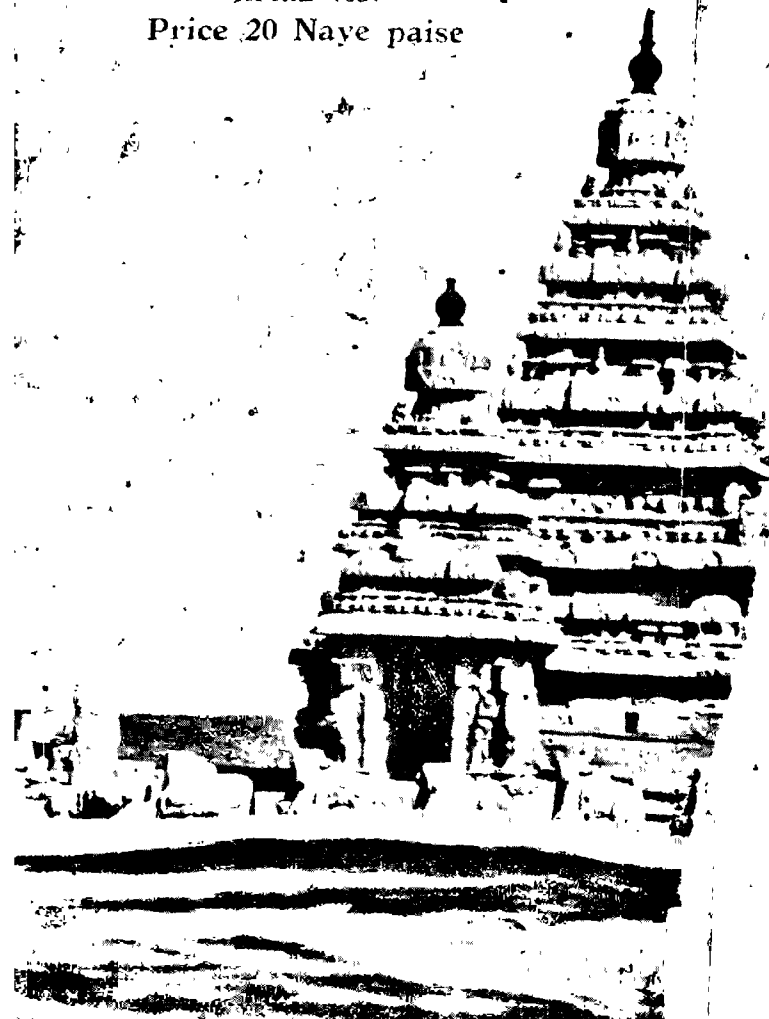
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MADRAS Information

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Signature and Designation
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3. Certified that for the railway journey included in the Leave Travel Concession bill, myself and members of my family travelled by the which the claim in made. C l a s s for

4. That my husband/Wife is not employed in/ that my husband/Wife is employed in Government Service and the concession has not been availed of by him/her separately for himself/herself or for any of the family members for the concerned block of two years.

Signature of the Government
Servant.

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Madras Information

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"WE SEEK TO SERVE AND NOT TO COMPETE"

April 1957

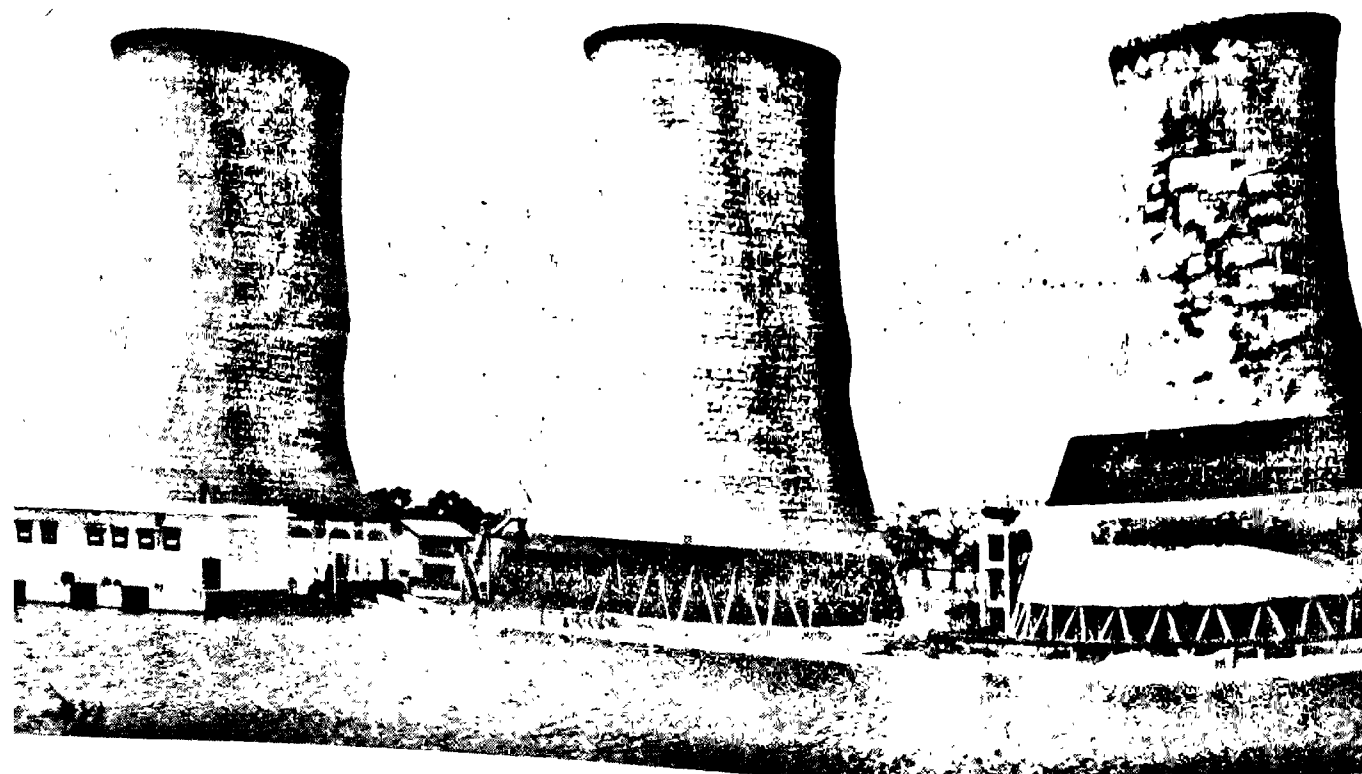
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The cover page: A rare view of the Shore Temple at Mahabalipuram. The Government have, started Training Centre at this historic city.

POWER DEVELOPMENT UNDER SECOND PLAN



By SRI V. P. APPADURAI, Chief Engineer for Electricity.

The First Five-Year Plan namely the period from 1951 to 1956 has yielded record results in various spheres and more particularly in the development of electricity. The period was confined to construction of a new power house at Moyar and extensions to the existing power stations at Pykara, Papanasam, Madurai and Madras. The installed generating capacity increased by nearly 65 per cent from 156,000 K.W. to 256,700 K.W. The full Five-year plan target of 110,200 K.W. was realized even during the fourth year of the plan. The aggregate power demand increased from 130,000 K.W. to 208,000 K.W. and the units generated from 630 millions to 1,055 millions. About 3,000 miles of H.T. lines and 4,500 miles of L.T. lines have been added to the grid during this period. Over 1,700 villages were electrified and 18,000 pumpsets connected up for supply during the plan period. Out of the allotment of Rs. 30.86 crores, a sum of Rs. 30.68 crores was spent to achieve these targets.

General outline of the Second Five-Year Plan.

The power scheme of the Madras State included in the Second Five-Year Plan as originally approved by the Planning Commission were estimated to cost Rs. 60.63 crores. A five per cent economy cut suggested by the Planning Commission and the reconstitution of the Madras State subsequently reduced this to Rs. 54.71 crores. This forms about 33 per cent of the total amount allocated to the State in the Second Plan period.

The power projects included in the Second Plan for the Madras State comprise the balance of works on schemes of the First Five-Year Plan now under execution and new schemes to be taken up in the second plan. The schemes of the first plan which are to be continued in the second plan are the Madras Plant Extensions giving an additional installed capacity of 30,000 K.W., the Periyar H. E. Scheme with an initial installed capacity of 105,000

K.W. the transmission and distribution scheme and the acquisition of electrical undertakings, all estimated to cost Rs. 13.65 crores. The schemes to be taken up in the Second Plan are the Kundah H. E. Scheme with an installed capacity of 18,000 K.W. transmission and distribution project, Sandynallah Reservoir Pykara Dam power house with installed capacity of 3,000 K.W. Papanasam Dam power house with installed capacity of 4,000 K.W. improvements to existing power sub-stations and transmission lines, investigation of new schemes and acquisition of electrical undertakings, estimated expenditure in the period on the new schemes Rs. 41 crores.

Periyar Hydro-Electric Scheme.

Of the four schemes of the Second Plan extending into the second plan the Periyar H.E. Scheme is the

Madras Plant Extension: To Be Completed By 1957

This scheme was sanctioned only in 1954 after conclusion of protracted negotiations of our Government with the Kerala State regarding the royalty to be paid for the use of the Periyar waters for generation of power. The scheme involves the construction of a power station in Madurai district for utilizing the irrigation discharge from the Periyar irrigation reservoir. There will be initially three numbers 50,000 H.P. turbines each directly coupled to 35,000 K.W. generators with associated step up transformers and switch gear. A fourth unit is to be installed at a later date. A system of 110, 66 and 33 K.W. transmission lines and sub-stations connecting the power house to the Madras Grid will convey power to the various load centres. The scheme is estimated to cost about Rs. 10 crores.

Work on this scheme was inaugurated on 11th February 1955 by our Chief Minister and the works are in good progress. Excavation of the 4,000 feet power tunnel was completed. The existing irrigation tunnel 5,900 feet long has been enlarged to admit an increased discharge of 1,600 cusecs. Construction of the forebay dam is in an advanced stage of progress. The penstock pipes have arrived and their erection is well under way. Excavation of the power house, transformer yard and tail race works has been completed. The manufacture of machinery and equipment are in good progress in Germany and it is expected that the first machine will go into operation early in 1958.

Madras Plant Extensions.

Madras Plant Extension is the second biggest scheme of the first plan continuing in the second plan period. The scheme contemplates an additional generating capacity of 60,000 K.W. in three stages to augment power supply in the Madras City. One 15,000 K.W. set under first stage and another 15,000 K.W. set under second stage have already been commissioned during the

first plan period. Work on the third stage involving the erection of the 30,000 K.W. set has been commenced and is under progress. It is expected that the turbo-set will go into commercial operation by the end of 1957.

Acquisition of electrical undertakings.

The First Five-Year Plan envisaged the acquisition of 27 private and 27 local authorities undertakings. Much progress could not be made initially as the Madras Electrical Undertakings Act, 1949, was invalidated by the Supreme Court. The legal defects have since been rectified in 1954. Seven private undertakings and 22 local authorities undertakings were taken over during the first plan period leaving a balance of 20 private undertakings and 5 local authorities undertakings to be acquired during the second plan period. During the year 1956-57, Devakottai, Karaikudi, Pudukottai Electric Supply Corporation, Pudukottai State Electrical Undertaking, Nattarasankottai, Kannadukathan, Ponnamaravathi and Brahmanadayaambal undertakings were acquired. It is proposed to acquire South Arcot Electric Supply Corporation on the 1st of June.

Kundah Hydro-Electric Scheme.

Kundah Hydro-Electric Scheme is the biggest of the new schemes of the second plan and is also the biggest scheme so far undertaken by the Madras Government. The development of the Kundah basin in the Nilgiris Hills is proposed to be taken up in two phases. The initial phase, involving the construction of two power houses, only has been investigated and is programmed to be taken up during the second plan period.

During this phase it is proposed to build four dams including the forebay dam, three tunnels, two sets of penstocks and two power stations. Each of the three dams across the Avalanche,

MADRAS INFORMATION

Emerald and Upper Bhavani rivers will be nearly 200 feet in height and will be of stone masonry in cement mortar. Their lengths at top will be 1,200 feet, 1,060 feet and 1,030 feet respectively. These will be the highest dams to be built in the State. The three reservoirs will give a combined storage of 9,000 million cubic feet. The forebay dam near Kundapalam will be 94 feet in height and 390 feet in length at the top. The tunnel numbers 1 and 2 will be 14,000 feet and 12,000 feet long respectively with net diameter of 10 feet and 10 feet nine inches. They will be lined through-out with cement concrete.

The first power station will be located on the right bank of the Kundah river and the second power station on the left bank of the Pegumbuhalla stream. Initially there will be two generating sets of 20,000 K.W. each at power house No. 1 and four sets of 35,000 K.W. each at power house No. 2. Thus, at the end of the initial phase the installed capacity in the two power houses will be 180,000 K.W.

Canadian Aid for the scheme.

The scheme is getting Canadian Aid under the Colombo Plan by way of machinery and materials to the extent of 20 million dollars or about 10 crores of rupees. During December, orders



Rural Electrification:

Madras Maintains Lead

have already been placed for construction machinery, penstocks (about 6,000 tons of steel), two generating sets of 30,000 h.p. for plant 1, four generating sets each of 50,000 h.p. for plant 2. All the above Canadian equipments are estimated to cost about five crores of rupees and are expected to be delivered in about two years time. It has also been agreed by the Canadian Government that all equipments, power transformers and switch-gear required for the two power plants, structures and equipment required for the sub-stations at Thudiyalur, Singarapett, Salem and Villivakkam and transmission line towers only for the portion between Kundah power plants 1 and 2 and Kundah to Salem only would be covered by the Canadian Aid of 20 million dollars already agreed upon.

To complete the transmission lines and thereby complete the project in all its aspects we would require a further aid of about 6 million dollars. The Government of Madras have approached the Government of India and through them the Government of Canada for the further aid to complete the scheme. It is expected that the aid will come through in good time.

Excavation for foundations at both the flanks of the Avalanche, Emerald and forebay dam sites as also the power house sites are in good progress. Grading of penstocks for both the plants is also under progress. The tunnel work, has been commenced. The entire organization has been so geared that works are carried out simultaneously at all those places and the civil works will be completed in time to receive the machinery from Canada. The first unit is expected to be commissioned by 1959 and the entire plant by 1960.

Transmission and Distribution Project.

The transmission and distribution project envisages the construction of a number of secondary transmission lines required for taking the additional power to the remotest corners of the State.

Including the transmission lines proposed under the Kundah and Periyar hydro-electric schemes an additional 8,300 miles of high tension lines and 8,000 miles of low tension lines will be erected in the second plan period. In addition to the transmission lines the scheme is also intended for building up distribution lines to expand rural electrification programme and bring electricity to the nooks and corners of the State.

Rural Electrification.

Madras State already ranks first in the matter of rural electrification with over 3,000 villages electrified to the end of 1955-56. During this year alone we have electrified about 1,000 villages and it is expected that about 5,000 villages will be electrified during the plan period thus bringing the total number of villages electrified at the end of the plan period to about 8,000. About 32,000 pumpsets were working on electricity at the end of the first plan period and it is expected that this number will be increased to 57,000 by the end of second plan period.

Sandynallah reservoir scheme.

The Sandynallah reservoir scheme envisages the construction of a storage reservoir across the Sandynallah river about 6 miles from Ootacamund. The

Papanasam Power House.



water thus stored will be diverted to Pykara Reservoir through a tunnel and this will result in an additional annual generation of 54 million units at Pykara and Moyar power houses. The scheme is programmed to be completed by 1959-60 and would involve an expenditure of about Rs. 97 lakhs.

Industrial development and the need for the investigation of new schemes.

The power demand of the Madras Grid has been steadily on the increase. During the plan period large scale industrial development both in the private and public sectors requiring large blocks of power has been contemplated. Important among these are the Aluminium Industry in the public sector proposed to be established in the Salem district to exploit the bauxite ores and the caustic soda cum soda ash plant in the private sector to be established in Arumuganeri in Tirunelveli district. These two industries alone require about 50,000 to 60,000 K.W. of power. A paper industry in the private sector in Tirunelveli district and another in the public sector in the Nilgiris district, a synthetic gem factory in private sector in Mettupalayam, an iron industry in the Salem district are some of the other new industries expected to come in for supply of power during the Second Five-year Plan. The railway authorities have a proposal to extend the electric traction from Tambaram to Villupuram in the main line. Apart from these the department will have to meet the growing requirements of the small scale industries and also the Lignite mining load till the thermal station

(Continued on page 35)

70,000-Ton Fertiliser Factory At Neyveli

Rs. 21 Crores To Be Spent: Trichy Gypsum Tested At Sindri

Production of Fertilisers.

The execution of a multi-purpose project for the mining of 3.5 million tons of lignite per annum at Neyveli in Madras State has been sanctioned by the Government of India, following the confirmation of the utility of lignite as fuel by large scale tests in Germany. The target date for exposing the first cut in the lignite seam is early in 1960 and the full production stage of the mine will be reached at the end of 1960. This Rs. 68 crores project is designed to produce besides carbonised briquettes, electric power and fertilisers.

The lignite mined at Neyveli, the tests have revealed, has a moisture content of 50 per cent and an ash content of 3 per cent and its calorific value is about 5,500 B. Th. U. per lb. Thus about 24 tons of raw lignite would be equivalent in thermal value to a ton of good coal and the annual target of production of 3.5 million tons would, therefore, be equivalent to a little over a million and a quarter tons of good coal. Raw lignite is, however, bulky and liable to spontaneous combustion. It has also to be briquetted, bringing the moisture down to about 15 per cent.

The lignite produced at Neyveli would be a vital factor in the industrial development of Madras which has been much retarded owing to want of electric power, which is also needed for the development of agriculture in the State. And as the most economic utilisation of lignite is to use it as fuel in boilers close to the mine itself, the generation of electric power is the most important constituent scheme in the integrated project. The installed capacity of the thermal power station will be 200 million watts, consisting of two units, the first of which is expected to be commissioned by the middle of 1960 and the second by the end of that year.

Another aspect of the multi-purpose project is the production of nitrogenous fertilisers which would help step up agricultural production. The fertiliser plant in the project is intended to produce fertilisers with a nitrogen content of 70,000 tons per annum. The precise kind and quantities of the fertilisers to be produced have not yet been determined, but tentatively it has been proposed that 200,000 tons of ammonium sulphate-nitrate and 46,000 tons of urea should be produced. Tests on gypsum available at Tiruchirappalli are now being conducted in the Sindri Fertilisers and a decision on these matters will be taken soon after the results of the tests are available.

The balance of lignite, after meeting the requirements of the power house and fertiliser plant, will be utilised for producing briquettes. For this purpose it is proposed to set up a plant for the production of 714,000 tons of lignite briquettes which, on carbonisation, would yield 380,000 tons of carbonised briquettes and by-products. Under the aid from the T.C.M., a pilot plant for the briquetting and carbonising equipment is expected to be received and erected by the end of October, 1957. After completion of the tests with the plant, preparation of the specifications for the briquetting and carbonising equipment will be taken up. The estimated cost of this project is about Rs. 10 crores. Operation of the plant on a commercial scale is expected to commence by about October 1961.

Plans for open cut.

A detailed plan of the first open cut of the mine to be excavated has been submitted by the Consulting Engineers, Messrs. Powell Duffryn,

Technical Services, Limited, and the Government have sanctioned the purchase of conventional earth-moving machinery and specialised mining equipment at a total cost of about Rs. 5.5 crores. While the shipment of the first unit of the specialised equipment is expected to begin about January 1958 and be completed by about November 1959, the conventional machines are being delivered in batches and the delivery is expected to be completed by the middle of 1957. To keep to the target date of mining lignite, it is proposed to commission the conventional machines on hand and those that might have been supplied before the end of this year and start operations on the removal of overburden in the first mine cut area in March 1957.

The estimated cost of the lignite project, excluding the fertiliser unit, will be Rs. 46.90 crores, out of which Rs. 31 crores will be in the Second Plan period. The fertiliser unit is estimated to cost Rs. 21 crores and the construction phase of this scheme will last through the period 1957-61.

The Government of India have sanctioned the acquisition of an area of about 26,750 acres in 22 villages in Vriddhachalam and Cuddalore taluks in Madras State at an estimated cost of Rs. 180 lakhs. This will meet the needs of the lignite project, including the large scale mining of lignite, the establishment of the factory and township, etc., and other requirements of the project. Work on land acquisition is already in progress.

Steps taken so far.

Steps taken by the Government of India so far include rehabilitation of displaced persons, at an estimated cost of Rs. 10 lakhs, and about 101,550

(Continued on page 35)



Sri T. T. Krishnamachari, Union Finance Minister, and Sri K. Kamaraj, Chief Minister, examining a silk saree after the 'Handloom House' at the Rattan Bazaar, Madras, was declared open on March 6, 1957.

What Madras Government Have Done For Handlooms?

By Sri G. RAMACHANDRAN, I.A.S., Director of Handlooms.

Hand weaving is the premier cottage industry of the Madras State. The five lakhs of handlooms in this State with the ancillary workers engaged in preparatory and finishing processes provide employment to nearly 20 lakhs of people. Of about 1,500 million yards of cloth estimated to be produced on the handlooms in the country about 300 million yards are produced in this State.

The fortunes of this industry however, have been notoriously unstable and the industry has had to face serious crisis on several occasions. It had to face the worst ever crisis in 1951 as the general price level in India started moving downward partly due to international factors and partly due to

larger availability of consumer goods. Foreign demand for Indian textiles declined on account of foreign competition. The Handloom Industry could not withstand this 'blizzard' because it was unorganised and lacked proper guidance and facilities for effective marketing of its products. Sales of handloom cloth declined sharply and large unsold stocks of cloth began to accumulate in handloom factories, Co-operative societies and with individual weavers. This accumulation occurring as it did closely on the heels of a general recession in prices aided by consumers' resistance resulted in curtailment of production of handloom fabrics and in many cases led to complete cessation of production. The hand-

loom weavers were thrown out of employment and the producers of handloom cloth had to sustain heavy financial losses. The position became so acute that in several important weavers' centres Government had to open gruel centres to provide subsistence to the weavers.

Prompt measures of the Government.

The Government recognized that this situation called for bold and prompt measures. They also realised that assistance could be rendered to the weavers only through the medium of an organisation which would assure to the weavers the full fruits of their labour. The provision of full employment through weavers' co-operative

societies became the sheet anchor of the Government's policy. They sanctioned what is known as the Relief Scheme under which weavers outside the co-operative fold were provided with interest-free advance up to Rs. 25 each to enable them to join the cooperative societies and take shares in them. A sum of Rs. 5 lakhs was placed at the disposal of the Registrar of Co-operative Societies for this purpose. At the same time to enable the co-operative societies to supply yarn and give continuous employment the Government sanctioned a loan of Rs. 35 lakhs to be routed through the Co-operative Banks.

The 1952 crisis.

The Government of India also recognized the enormity of the problem facing the handloom industry. The crisis which the Handloom Industry had to face in 1952 was primarily a crisis in the consumption of handloom cloth. This situation led the Government of India to formulate measures designed to stimulate the consumption of handloom cloth. The sales of handloom cloth had fallen off largely because of the disparity in the prices of handloom and mill cloth. The Government of India now sought to bridge the difference by the levy of an additional excise duty on mill-made cloth which was earmarked specifically for the purpose of developing Khadi and other industries and promoting the sale of Khadi and other handloom cloth. They also set up an All-India Handloom Board with comprehensive functions. In order to create a sheltered market for the products of the handloom industry, they also restricted the monthly production of dhoties by the mill industry to 60 per cent of the average monthly packings of this variety of cloth during the twelve months ending March 1952, and also prohibited the piece-dyeing and also prohibited the piece-dyeing of sarees by the mill industry. Besides certain varieties such as lungies, Sarcen, bed-sheets, bed-spreads, counterpanes, gauze and bandage cloth were reserved exclusively for the handloom industry.

The creation of Cess Fund.

The creation of a cess fund about three years ago for the development of the handloom industry was a turning point in its history. Since then the industry has recorded continuous and sustained progress without any serious setbacks. The Government of India

have till now sanctioned over Rs. 475 lakhs as loans and grants for the development of the industry in this State. The amounts sanctioned by the Government have progressively increased from year to year. From about Rs. 98 lakhs in 1953-54 the allotments increased to Rs. 118 lakhs in 1954-55 and 1955-56, the ceiling share for this State for the current year was announced to be Rs. 147.5 lakhs but against this Government of India have already sanctioned schemes costing about Rs. 190 lakhs for the next year also the share of the State is expected to be Rs. 178 lakhs and at least Rs. 8 crores is expected to be made available to this State during the Second Five-Year Plan period out of a total of Rs. 34 crores allotted for the industry by the Planning Commission.

The Government of Madras have taken full advantage of the Cess Fund schemes to promote co-operative effort among the handloom weavers. Share capital loans at Rs. 21-40 and Rs. 25 in some cases have been given free of interest to the weavers to enable them to join the weavers' co-operative societies. Under the stimulus of this assistance the number of looms in the co-operative fold has increased from 98,000 on 31st December 1953 to 1,77,000 on 31st December 1956. The number of looms in the co-operative fold now represents nearly 33 per cent of the looms in the entire State. The number of societies has also increased from 566 on 31st December 1953 to 860 on 31st December 1956. The share capital held by the weavers in the cooperative societies has increased from about Rs. 64 lakhs to Rs. 75 lakhs and by March this year is expected to increase further to about 80 lakhs.

Subsidy to Weavers.

The Government have not been slow to recognise that marketing is the crux of the problem of the handloom industry and have taken several steps to stimulate sales of handloom cloth. By far the most spectacular measure so far undertaken to set up the sales of handloom cloth is the grant of subsidy to weaver's co-operative societies to recoup a rebate allowed by them on their sales at 0-1-6 annas in the rupee. This rebate is now allowed by weavers' societies on sales to consumers as well as wholesalers; besides consumers' cooperative societies have also been encouraged to deal in handloom cloth

by being allowed subsidiary to recoup the rebate allowed by them on the sales of handloom cloth. On special occasions such as the Handloom Week and the Deepavali season an enhanced rebate of 2 annas per rupee has been permitted on sales of handloom cloth. The subsidies disbursed by the State on this account have increased progressively and during the current year alone claims aggregating to nearly Rs. 100 lakhs are expected to be recouped. It cannot be gainsaid that rebate on sales of handloom cloth is the lynch pin of the Government's programme for the promotion of markets for the handloom cloth and it has more than any other single measure served to popularise handloom cloth in new areas and among new classes.

In order to enable the Madras State Handloom Weavers' Co-operative Society the Apex Organisation of weavers' societies in the State to extend its marketing activities interest free loans to the extent of Rs. 74.93 lakhs have been disbursed and the State Society has now been on the average procuring and selling goods to the tune of Rs. 12 lakhs a month through its network of depots and emporia all over the country.

A scheme has also been drawn up to promote foreign markets for handloom goods in the Middle East and Far Eastern countries and the scheme is being worked by the all-India Handloom Board through the agency of the Madras State Handloom Weavers' Co-operative Society. Under this scheme handloom cloth depots have been opened at Aden, Colombo, Singapore and Bangkok. There has of late been a growing interest in handloom fabrics in American Markets particularly for the variety known as 'Madras Handkerchiefs'. With a view to concert measures for the exploitation of this market the Government of India recently invited a team of American experts to tour the different handloom centres and suggest ways and means of stimulating exports of handloom cloth to America. The team has in its preliminary report indicated that there is a potential market for Indian handloom goods in U.S.A.

The Government have recognised that a permanent improvement in the condition of weavers can be effected only if the technique of the industry is improved and the quality of the goods is maintained at a high level. In order



Co-operative Spinning Mills: Government Assistance In Collecting Share Capital

to enable the handlooms to produce goods of uniform texture steel reeds costing about Rs. 10 each are supplied free of cost to the weavers. Along with these steel reeds varnished healds are also supplied to them. During the current year alone allotments have been made to the weavers' co-operative societies for the purchase of 2,500 sets of varnished healds. Take-up-motion attachments costing about Rs. 70 each are also supplied to the handloom weavers so that fabrics with uniform picks comparable to mill cloth could be produced. Recognising that the production on pedal looms is higher than an ordinary pit loom Government are also supplying free pedal looms costing about Rs. 500 each.

The Madras State Handloom Weavers' Co-operative Society has been provided with financial assistance to enable it to appoint technical staff to demonstrate to the weavers the use of improved appliances.

Need to adapt new designs and patterns.

The handloom industry can maintain for itself a stable market only if it adapts itself to the changing tastes of the consumers. It is necessary for them to adopt new designs and patterns dictated by market conditions. In order to popularise such new designs and patterns among handloom weavers the State Handloom Weavers' Co-operative Society has with financial assistance from Cess Fund set up four pattern making factories at Cannanore, Madurai, Salem and Tirunelveli. A scheme for imparting training to the weavers in these pattern making factories has also been drawn up. The All-India Handloom Board has also planned to set up two designing centres at Madras and Kancheepuram directly under its control.

With subsidies from the Government of India and the State Government a Calendering Plant has also been put up at Erode and the plant has now

gone into production. Such processing of handloom cloth is expected to increase its sales appeal. In order to improve the quality of dyes used by the Handloom industry two modern up-to-date dye factories will be set up at Salem and Kancheepuram. The technical feasibility of setting up a 'sanforizing' plant for pre-shrinking handloom fabrics destined for foreign markets is now being examined.

Co-operative Spinning Mills.

It has also been felt for a long time that the weavers' co-operative societies should not be dependant wholly on spinning mills in the private sector and that they should themselves own and operate spinning mills on a co-operative basis. A co-operative spinning mill is already coming up at Tirunelveli and the Government are also now actively assisting in the collection of share capital for another co-operative spinning mill to be set up at Srivilliputhur. Share capital to the extent of Rs. 7 lakhs has already been collected and as soon as a target of Rs. 10 lakhs is reached the State Government will themselves take shares in the mills to the extent of Rs. 10 lakhs with loans from Cess fund.

The Government have not contented themselves with merely improving the economic condition of the handloom weavers. They have also recognised that the handloom weaver should be enabled to live in healthy surroundings. Therefore they have drawn up schemes for the setting up of housing colonies for the weavers.

There is one class of weavers, viz., those without their own looms who will not derive much benefit from the normal pattern of schemes implemented through weavers' co-operative societies. It has been realised that this class of weavers could be helped only through a factory run on co-operative lines. Two such co-operative factories called Industrial Co-operative Societies were first formed at Cannanore in Malabar to provide

employment to weavers in two factories which have closed down. Encouraged by the success of these two ventures which were indeed the pioneer in the field of industrial co-operation in India the Government have sanctioned the schemes for the setting up of three Industrial Co-operative Societies in the Tamil district, one each at Karur, Madurai and Aruppukottai. Scheme for the establishment of similar industrial co-operatives at Manavasi near Karur in Tiruchirappalli district and at Arani in Chingleput District are under consideration. These Industrial Co-operative Societies will not only provide continuous employment to the loomless weavers but it will also teach them how to manage their own enterprises. The Industrial Co-operative Societies are indeed shining examples of an Industrial democracy in operation.

Assistance from Cess Fund has also been extended to the silk handloom industry. Societies have been started at Kancheepuram, Kumbakonam, Thirubuvanam, Salem, Manambuchavadi, Mannargudi and Arni. A scheme for the formation of a Silk Weavers' Co-operative Society at Darasuram has been approved and forwarded to the All-India Handloom Board for sanction of funds. The silk looms admitted in weavers' co-operative societies are provided with working capital at the rate of Rs. 500 per loom.

The Government of Madras have also recognised that the large class of weavers outside the co-operative fold should also be given financial assistance for the improvement of their socio-economic condition. The Second Five Year Plan of the State provides for the grants of loans as working capital to independant weavers. Schemes have also been included for the supply of improved appliances such as reeds, pedal looms, take-up-motion attachments, etc. It is also proposed to form marketing organisations to stimulate the marketing of cloth produced by weavers outside the co-operative fold.

Literary Workshop At Tirukkazhukundram

Training Of Authors To Write For Neo-Literates

The inauguration of the Literary Workshop at Tirukkazhukundram in February 1957 registers an important stage in the organised efforts of the Government to wipe out illiteracy from among the adult population in this State. Since the attainment of the Independence, it has been one of the vital planks of the developmental programme of the Government to spread education as quickly as possible among the masses. Their campaign in this regard is a two-pronged one consisting on the one hand of multiplying the number of elementary schools for the benefit of school-age children and on the other of organised efforts to spread literacy among the adults. Ere the Second Five-Year Plan period comes to an end, it is hoped that elementary education as well as literacy among the adults will have made substantial progress.

One of the serious problems involved in the spread of mass education is to keep the adults who have been made literate from relapsing into illiteracy. It is here primarily that Literary Workshops come in.

The purpose of the Literary Workshop at Tirukkazhukundram is to train authors in the technique of writing for neo literates. This is the second of its kind in the State, the first being the one conducted at Peelamedu in Coimbatore district in 1955. The location of this Workshop in Tirukkazhukundram is not without significance. The place is a rural area and there is good scope for the trainees to move with rural folks, understand their dialects and utilise the knowledge thus gained in the writing of books. After all, more than 70 per cent of the population of this country is concentrated in villages and if literacy among the adults in the rural areas are wiped off to an appreciable extent, then half the problem of adult education in the

country will be solved. The trainees are paid an honorarium of Rs. 150 besides travelling allowance and the period of training lasts for six weeks.

It will be interesting in this connection to mention a few details as to how trainees get to acquire the equipment necessary for enabling them to write books for neo-literates. The trainees, generally, attend festivals where villagers of different types congregate such as Masimaham at Mahabalipuram, and the weekly Shandy at Tirukkazhukundram. They also go to neighbouring villages and tape-record the spoken vocabulary of groups of villagers engaged in different crafts such as agriculture, weaving, fishing, etc. The recorded conversations are relayed at the Literary Workshop over and over again and certain live words are listed out therefrom. Thus a list of words, phrases, idioms and familiar sayings of the villagers is drawn up as a result of direct observations.

Side by side with these, discussions are also held particularly regarding the technique of the preparation of literature to suit the reading ability and powers of comprehension of neo-literate adults. After completing these preliminaries, the writers settle down to compose folders based upon the tenets discussed and agreed upon. A hundred folders are quickly drawn up and these are unofficially tested by the authors in their own way on neo-literates whom they manage to contact on their own initiative during spare hours. After this is finished, the finalisation of the texts is taken up. One special feature of this is the presence of neo-literates themselves in the discussion groups. Sometimes they make very valuable suggestions and these are accepted. After the

texts are finalised in this way, the manuscripts are officially tested on neo-literates in the neighbouring population centres. Then the entire process of testing is tape-recorded for further scrutiny and discussion by the members at leisure. The folders are generally made of 4 to 8 pages having not exceeding 16 words per page. Every page is illustrated by two artists specially employed for the purpose in the Workshop. Booklets containing not exceeding 1,000 words and text books containing up to 3,000 words then follow from the pen of each writer. Manuscripts of these books and booklets are also subjected to the same process of construction, correction and finalisation as in the case of folders.

The period of training is not one of unrelieved monotony without any diversion or recreation. There is provision in the programme of the Literary Workshop for change and recreation. All the writers move in a body sometimes on an excursion to interesting places in the neighbourhood. The trainees have already visited the I.A.F. Training Centre at Tambaram, the bird sanctuary at Vedanthangal, Mahabalipuram, Kancheepuram Weavers Centre and similar other places. Other entertainments are also held.

The role of such Literary Workshops under the scheme of Parliamentary Democracy cannot be over-estimated. An educated electorate is one of the basic conditions for the success of Parliamentary Democracy and in the matter of educating the electorate, Literary Workshops serve as a vast power house from where transmitters carry the rays of knowledge to the masses through the authors trained therein.



Top: The trainees at Tirukkazhukundram with Sri A. G. Vilvaroy, Director of the Literary Workshop.



Top: The spoken vocabulary of groups of villagers are tape recorded. This method helps in collecting some live words and familiar idioms used by them.



LITERARY WORKSHOP

At
Tirukkazhukundram



Top: The programme for the day is chalked out. The Director explains to the trainees the methods that should be adopted in preparing the vocabulary.

Left: The authors under training pick up conversation with the villagers to have first-hand knowledge of the language of the masses.



Top and Left: Referring to eminent authors gives a correct picture to the trainees. The first-hand experience coupled with thorough knowledge of literature help the trainees to produce better manuscripts.



Left: Preparation of charts which are easy means of imparting knowledge also receive attention at the workshop.

Right: The summing up of the experience gained and exchange of views among the trainees.



Community Development Programmes In Madras State

On December 31st, 1956, there were 76 active and 15 Post Intensive Blocks functioning in the State (including the 2 Blocks in Kanyakumari district). These Blocks, 14,748 square miles in extent, covered 5,415 villages with a population of 86.53 lakhs. The development areas thus cover 30% of the area and 31% of the villages in the Re-organised State of Madras. Details of Government expenditure and the Physical achievements discussed below do not cover the 21 Blocks started on October 1956.

For the implementation of the programmes, 289 lakhs of rupees have so far been spent in the Community Projects and Community Development areas of the State which represented 70 per cent of the pro-rata target under expenditure. Besides, a sum of Rs. 71 lakhs had been spent up to 31st December 1956, in implementing the development programmes in the National Extension Service areas which accounted for an achievement of 76 per cent of the pro-rata target contemplated. A study of the position of Projects and Blocks which had completed the normal term of 4 years or 3 years as the case may be, shows that development expenditure reached the high figure of 96 per cent in the Project areas of Periyar and Lower Bhavani and 84 per cent in the areas covered by Community Development Blocks of the 1953 series. The Lower Bhavani Project and the Blocks of Usilampatti, Kaveripattinam, Alangudi and Singampuneri had all exceeded on 31st December 1956, the prorata targets appropriated to the period of their duration. The Periyar Project and the Blocks of Chidambaram, Tiruthuraiipoondi, Musiri, Valathi, Kumbakonam (North) and Mundakalathur had spent more than 80 per cent of the amount targeted up to 31st December 1956.

Agriculture.

The extension programme in the field of agriculture embraced all measures necessary to make the Indus-

try efficient with a view to achieving increased production according to targets laid in the Second Five-Year Plan. The foremost among the measures was the distribution of fertilisers and improved seeds. In all 51.5 lakhs of maunds of fertilisers were distributed in the Community Development and National Extension Service areas of Madras State up to the period under review. Improved seeds distributed amounted to 1.77 lakhs of maunds. The tempo of the progress under these two items has been on the increase from year to year. Compared to 1954-55, the achievement during the year 1955-56 was 8 per cent more in respect of fertilisers and 132 per cent more in respect of seeds distributed. In addition to chemical fertilisers and green manure rural compost was prepared out of 157,447 compost pits dug up to the period ending 31st December 1956. The use of green manure was popularised in many areas in the State and as a result of this nearly 93 thousand acres were under Sesbania during the official year 1955-56. Other green-manure like Kolinzi, Glyricidia, sunn-hemp, etc., accounted for 1.35 lakhs of acres. In order to bring greater extents under improved strains, primary and secondary seed farms were arranged and the seed multiplication schemes were promoted to make the maximum number of ryots come within easy reach of quality seeds. Village seed farms were arranged for paddy and millets on 15,838 acres, 4,199 acres, covering 1,850 villages and 646 villages, respectively during the year.

With a view to impress on the villages; the efficacy of improved agricultural practices like Japanese method, use of chemical fertilisers etc., 27,721 demonstration plots had been laid up to 31st December 1956 in the Community Development areas in the State and 32,828 demonstrations were conducted in these areas. The number of demonstrations conducted during the year 1955-56 was 116 per cent more than the achievement in the

previous year. Nearly 2.2 lakhs of ryots attended those demonstration every year and the popularity attained by them is evidenced by the acreage brought under Japanese method of paddy cultivation which was as high as 2.29 lakhs of acres during the official year 1955-56. Other improved methods of cultivation accounted for 1.05 lakhs of acres. 14,096 improved implements had either sold or distributed free to the ryots up to December 1956. So far 1.94 lakhs of fruit trees and 28.6 lakhs of trees of economic importance had been planted in the development areas 8,517 acres were brought under fruits and 15,248 acres were brought under vegetables up to the quarter ended 31st December 1956. 40,527 acres of waste land were reclaimed and 204,935 additional acres were brought under irrigation, since the inception of the Community Development Programmes in the State in October 1952. Measures to save crops from the ravages of locusts, etc. were regularly adopted in the development areas of the State nearly 1.30 lakhs of acres were so saved in the official year 1955-56.

Animal Husbandry.

Supply of pedigree animals and pedigree birds, castration of bulls, inoculation and treatment of cattle were some of the important programmes undertaken to improve the Livestock in the development areas under discussion. Six hundred and twenty pedigree animals and 14,559 pedigree birds had been supplied in the Community Development areas of Madras State up to December 31st, 1956 to upgrade the existing stock of local animals and birds. Twenty-six key village centres and 24 Veterinary dispensaries, had been started in the Community Development areas of Madras up to 31st December 1956. 9.9 lakhs of cattle were inoculated and vaccinated and 4.84 lakhs of cattle and 75,986 birds were treated for various diseases up to December 31st, 1956. Nine hundred and thirty poultry farm had been started in the Community Develop-

More Than 2,000 Miles Of Roads Laid In Development Areas

ment areas of Madras State which apart from improving the breed of birds provided part time employment. Bulls were maintained under the Premium scheme in the various Community Development areas of Madras State and 136 bulls were included in this scheme during the year 1955-56. The staff of the Animal Husbandry department visited in the official year 1955-56 as many as 3,324 villages. Two hundred and eighteen lectures and propaganda meetings were conducted by them where the villagers received instructions for the proper up-keep of animals, for the prevention of diseases affecting them and for raising fodder crops for animals. Besides exhibitions, cattle shows and cattle fairs were conducted in all the Block development areas of the State in different parts of the year. Forty-four exhibi-

tions, 37 cattle shows, 36 cattle fairs were conducted during the official year ending March 1956.

Fisheries.

Two hundred and ninety-four tanks were stocked with fish and 8.1 lakhs of fingerlings were supplied in the Community Development and National Extension Service Block areas of the State.

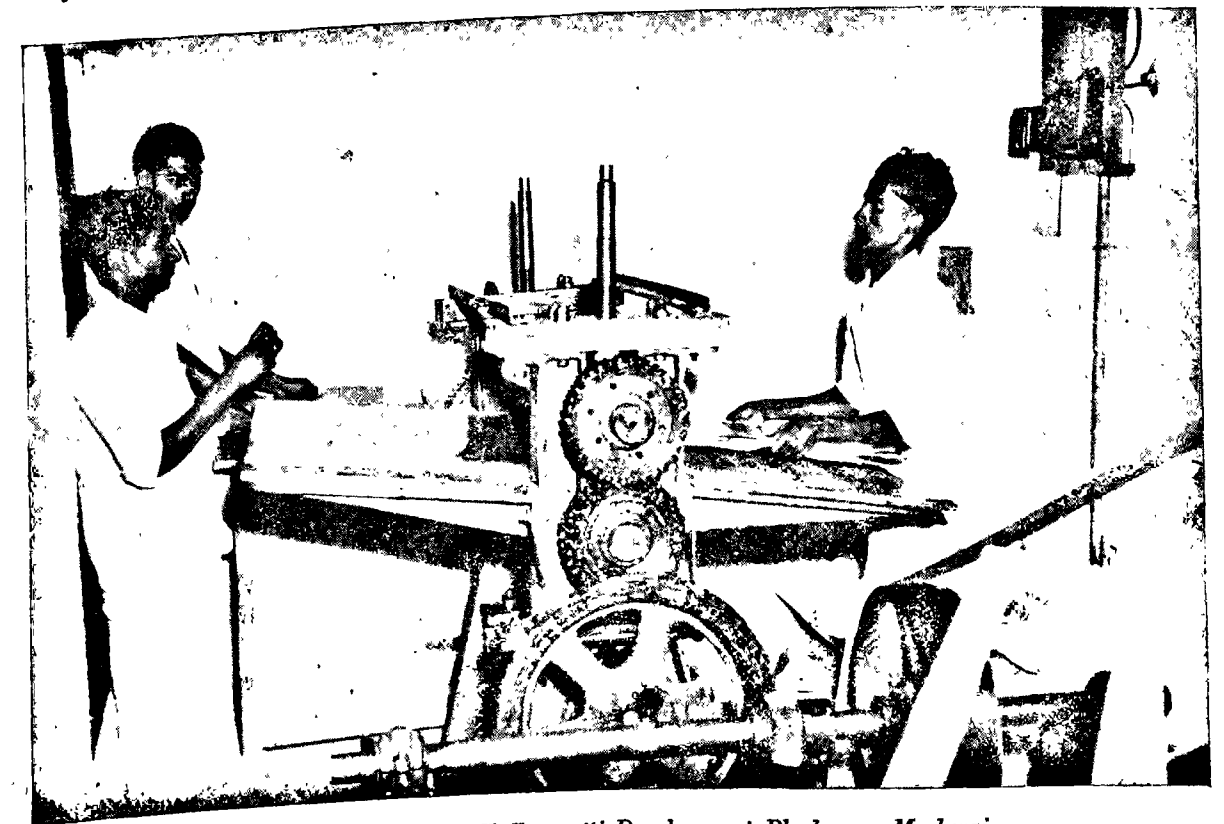
Health and Rural Sanitation.

26,684 soakage pits, 6,281 rural latrines and 182,249 yards of drains were constructed in the Community Development and National Extension Service areas to implement measures to improve rural Health and Sanitation. Four hundred and nineteen water Seal Slabs were sold to ryots at concessional

rates with a view to enable them to construct septic latrines. There were 201 dispensaries, hospitals, Child Welfare, Maternity centres, Rural dispensaries functioning in the Community Development areas of Madras State and nearly 6.25 lakhs of people were given treatment in the various institutions.

Rural water supply.

Two thousand three hundred and sixty five wells were constructed and 2,320 wells were renovated up to the quarter ending 31st December 1956. In Lower Bhavani, schemes for protected water supply were in progress in 35 villages. Out of 549 wells works estimated to cost Rs. 14 lakhs, sanctioned for execution in the Lower Bhavani area, 311 works had been completed at a cost of Rs. 9.01 lakhs.



Paper making at T. Kalluppatti Development Block near Madurai.

Education and Social Education.

Since the inception of the Community Development Programmes, 876 new schools were opened in the Community Development areas of Madras State. Seven hundred and thirty four ordinary schools were converted into basic up to 31st December 1956. Construction of new school buildings and addition to old buildings were undertaken in many of the Community Development Blocks with the people participating enthusiastically by offers of gifts and donations of land, materials and manual labour. Lower Bhavani area alone took credit for the construction of new school buildings in 34 villages. Fourteen school buildings were completed in Chinnasalem Block. To implement schemes for the promotion of adult literacy 2,143 adult education centres were started and 92,993 adults were either trained or were under training at the end of December 1956. 2,797 recreation centres including libraries and reading rooms were started with a view to provide recreation facilities to the villagers in these areas and to

further community living. Besides 7,246 community entertainments were organised in these areas which served to propagate the aims of development programmes in a large measure.

Communications.

928 miles of pucca roads and 1,212 miles of katcha roads had been laid in the Community Development areas up to the period ending December 1956. Improvements to 679 miles of existing roads and construction of 909 culverts had also been effected during this period.

Co-operation.

In view of the great importance attached to Co-operative Societies both as an instrument of production and marketing, the development of Co-operative Societies continued to receive high priority. 864 Co-operative Societies had been started up to 31st December 1956 in the Community Development areas of Madras State and 1,38,069 new members were enrolled. 169 socie-

ties were converted into Multi-purpose Co-operative Societies.

Rural arts and crafts

Sixty nine industrial units were started and 121 old units revived during the period under review. Loans to the tune of Rs. 23.36 lakhs were granted to these unist.

A sum of Rs. 1.73 lakhs has been spent in furthering measures to promote the village oil industry. Opening of demonstration-cum-training centres and conversion of old ghanies to Wardha type were some of the features that marked the development in this regard.

Cumbly weaving, toy making, coir making, mat weaving, palmgur production, manufacture of bullock shoe nails, gun-metalware, leather goods, etc., are some of the industries that have been started in the Community Development areas, either under the Co-operative or other auspices with financial aid from the Block or other funds.

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About 300 villagers contributed voluntary labour for the formation of a new road to link Vadakadu Village with Koilur in Muthupettai Block, Tanjore District.

The Unified National Calendar

The unified National Calendar, based on the Saka Era, came into force from March 22, 1957. The Gregorian calendar will, however, continue to be used as hitherto, in conjunction with the new calendar, for official purposes.

In the new calendar Chaitra would be the first month and the normal year would consist of 365 days, with 366 days for every leap year.

The Saka Era has been adopted for the new calendar as it was found to be widely used all over India. Indian astronomers have been known to be using it in their calculations since the time of the celebrated astronomer. Varahmihira. The Indian almanac-makers, even now, use the Saka Era for calculations and then convert the calculations to their own system.

The lengths of all the 12 months have been fixed and the new year will always commence from the day following the vernal equinox. Thus, the days of the new calendar would have a permanent correspondence with

the days of the present Gregorian calendar.

A Committee was appointed in November 1952 to examine the existing calendars which have been followed in the country and submit proposals for an accurate and uniform calendar for the whole of India. The Committee submitted its report in 1955 and the Union Government decided to adopt a unified National Calendar.

The Committee found that not less than 30 different calendars, differing in the era-beginning, the initial date of the year and, to some extent in the methods of calculations were prevalent in different States of the Country.

The Indian calendar-makers had taken the length of the year to be 365.25876 days while the correct length of the tropical year is 365.2422 days. This difference is partly due to errors of observations and partly to the failure to recognise the precession of equinoxes.

In addition to revolution round the sun and rotation round its own axis, the earth has another motion,

viz., a slow conical motion of its axis round the pole of the ecliptic which causes the equinoxes to move backward. This phenomenon has been termed as precession of equinoxes.

This error has been accumulating for nearly 1,400 years with the result that the solar year, instead of starting on the day following vernal equinox, i.e., March 21, starts nearly 23 to 24 days later. There is thus a clear difference of 23 days in the reckoning of seasons. The dates of festivals have consequently shifted by 23 days from the season in which they were observed about 1,400 years ago. The Calendar Reform Committee considered it expedient to maintain this as a constant different and stop its further increase.

There will be no deviation from the prevailing custom in the observance of various religious festivals. For religious purposes the new calendar will begin its lunar months from the day of the new moon and the month will be named after the Saur-masa in which the new moon falls.

(Continued from page 14)

The Intensive Khadi scheme was in force in 29 National Extension Service Blocks during the year 1955-56. Under this scheme, charkas were supplied to spinners at concessional rates 12.5 lakhs of lb. of cotton were distributed in the various centres. 135 lakhs of yarn in hanks were purchased from spinners and 90.7 lakhs of yarn in hanks were issued to the weavers. The Comprehensive Khadi scheme was in force in the Community Projects and Community Development areas. Under this scheme 1,000 charkas per Block per year were distributed at subsidised rates. During the official year 1955-56, the total quantity of cloth produced in the Intensive Khadi centres was 1,648,242 yards of khadi worth Rs. 35,52,979 of which a quantity of 611,759 yards of khadi was consumed by the public. 946,419 yards of khadi was sold outside the centres including sales to Government Departments, Local Bodies, etc. The total value of khadi goods sold

came to Rs. 38,02,880 during the year 1955-56.

Rural Housing.

5,569 houses were constructed and 800 houses renovated. Loans for the construction of houses under the rural housing scheme were granted on a large scale in development areas. In Lower Bhavani, loans to an extent of Rs. 2.11 lakhs had been granted up to 30th September 1956. Construction of Harijan colonies was in progress in 20 villages in the Lower Bhavani Project area.

Units of People's Organisation and People's contribution.

687 Youth Clubs, 290 Farmer's Unions, 226 Mahila Samitis, 1,691 Panchayats and 941 Vikash Mandals and Village Councils had been organised up to the period 31st December 1956.

People's contribution to the several development programmes amounted to Rs. 102 lakhs up to the end of December 1956.

Electricity.

In addition to the achievements outlined above, that resulted out of Block endeavour the Highways, Irrigation, Public Works Department and Electricity and other departments of Government have been carrying on their normal departmental activities like maintenance of roads, black top surfacing, metalling construction of bridges, anicuts, canals, etc., in the development areas. Particular mention may be made of the activities of the Electricity department in these areas. 370 schemes at an estimated cost of Rs. 146 lakhs were completed, 241 schemes estimated to cost 277 lakhs of Rupees are in progress and a sum of Rs. 161 lakhs of Rupees have been spent up to 31st March 1956 on the various schemes. 8,343 domestic, 3,458 agricultural, 1,907 street lights, and 148 industrial connections were given in the Community Development areas of Madras State.

Sculpture Training Centre At Mahabalipuram

Revival Of The Ancient Art Of The Tamils

Sculpture has always occupied a place of pride in the arts and crafts of South India. Mahabalipuram, Charamangalam, Krishnapuram, Avudayarkoil and Ellora not to speak of the innumerable other rock cut temples all over South India are standing monuments of the skill and ingenuity of the South Indian Sculptor. Patronised by Kings, encouraged by the enlightened aristocracy and inspired by faith in a living religion, these craftsmen have erected wonders that have captured the attention of an admiring world from ancient times down

to the present day. The craft however received a serious set-back in recent years and except for a few here and there carrying on the tradition, the vast majority have deteriorated into ordinary stone cutters and dressers. In the interest of preserving this ancient craft and providing trained workers, needed for renovation of temples and for other works of art, it was proposed to set up a training school for sculpture in this State.

Mahabalipuram has been selected for locating the institution, as this place

will provide for the right atmosphere and background for the craft. It is understood that there existed one such school at Mahabalipuram during the days of Pallava Kings.

It is proposed to train at this centre 20 candidates selected from families traditionally engaged in sculpture, paying them a stipend of Rs. 40 each per mensem. An experienced sculptor by name Vaidyanatha Sthapathi has been posted as Superintendent of the

(Continued on page 35)



The Sculpture Training Centre at Mahabalipuram was inaugurated on 11th March 1957 by Sri M. Bhakthavatsalam, Minister for Agriculture and Industries. Sri T. K. Palaniappan, I.A.S., Director of Industries was also present on the occasion.

Democracy's Second Test

The General Elections in 167 constituencies of which 38 were plural were held on 1, 4, 6, 8 and 11th March 1957. The Government declared holidays on the polling dates and the management of factories and industrial establishments were requested to give facilities to workmen to exercise their franchise on the polling days in their respective localities.

About fifty per cent of the 17.6 million eligible voters went to the

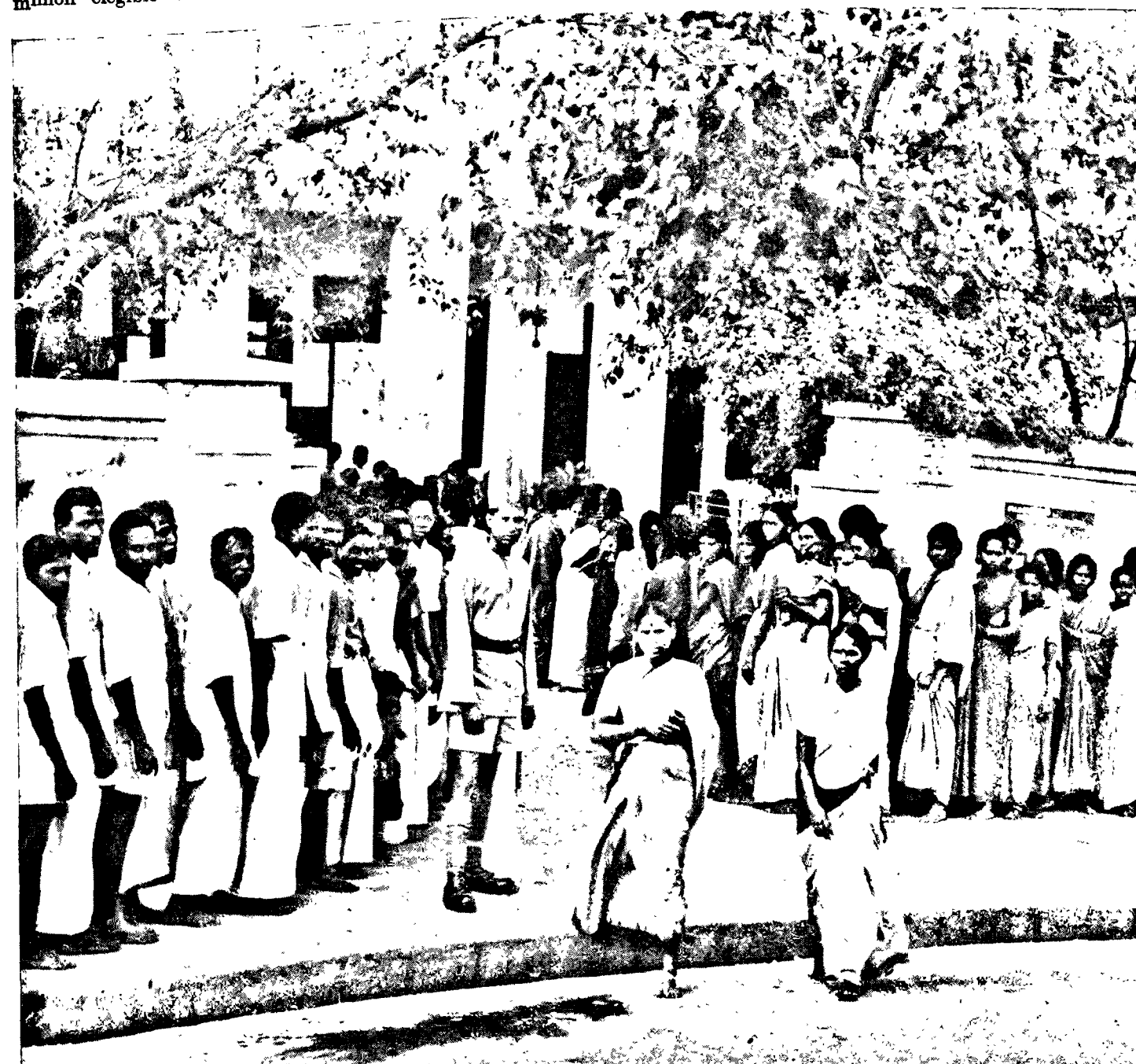
polls in the General Elections to send 202 members to the State Assembly and 40 members to the Lok Sabha. Of the 205 members, the prescribed strength of the State Assembly, three were returned unopposed. One member was also elected unopposed to the Lok Sabha.

Madras State which is little over 50,000 square miles in area with a population of 30 million had the unique honour of having a dozen women

legislators in the Assembly. Never in the annals of the Madras Legislative Assembly, have so many women been elected. It is also an interesting fact that women voters (8,863,427) in Madras State outnumbered men voters (8,688,556) by nearly two lakhs.

The village folk exhibited great enthusiasm in exercising their choice. Festive scenes were witnessed in many a village on the polling day. The

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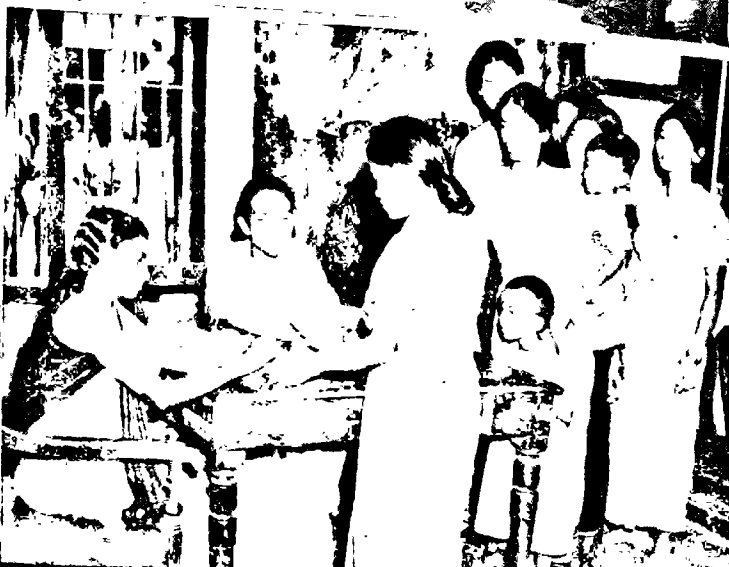
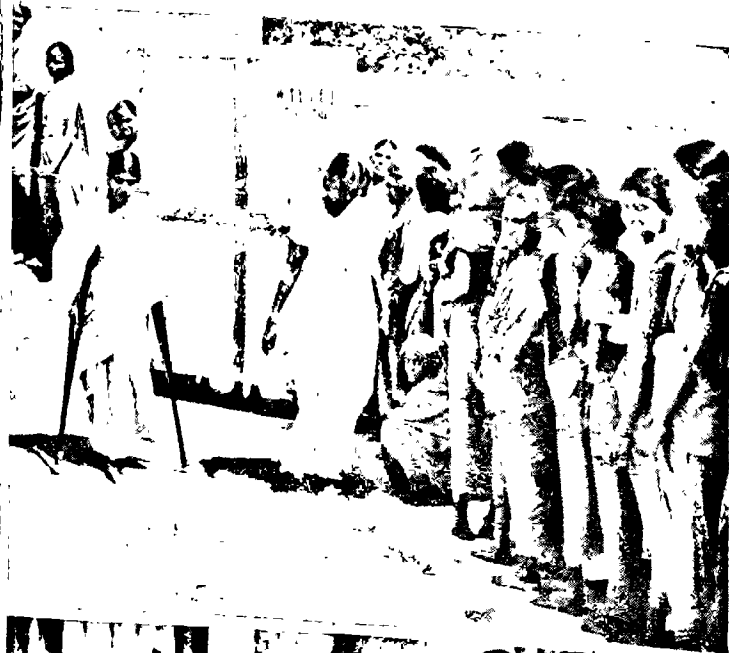


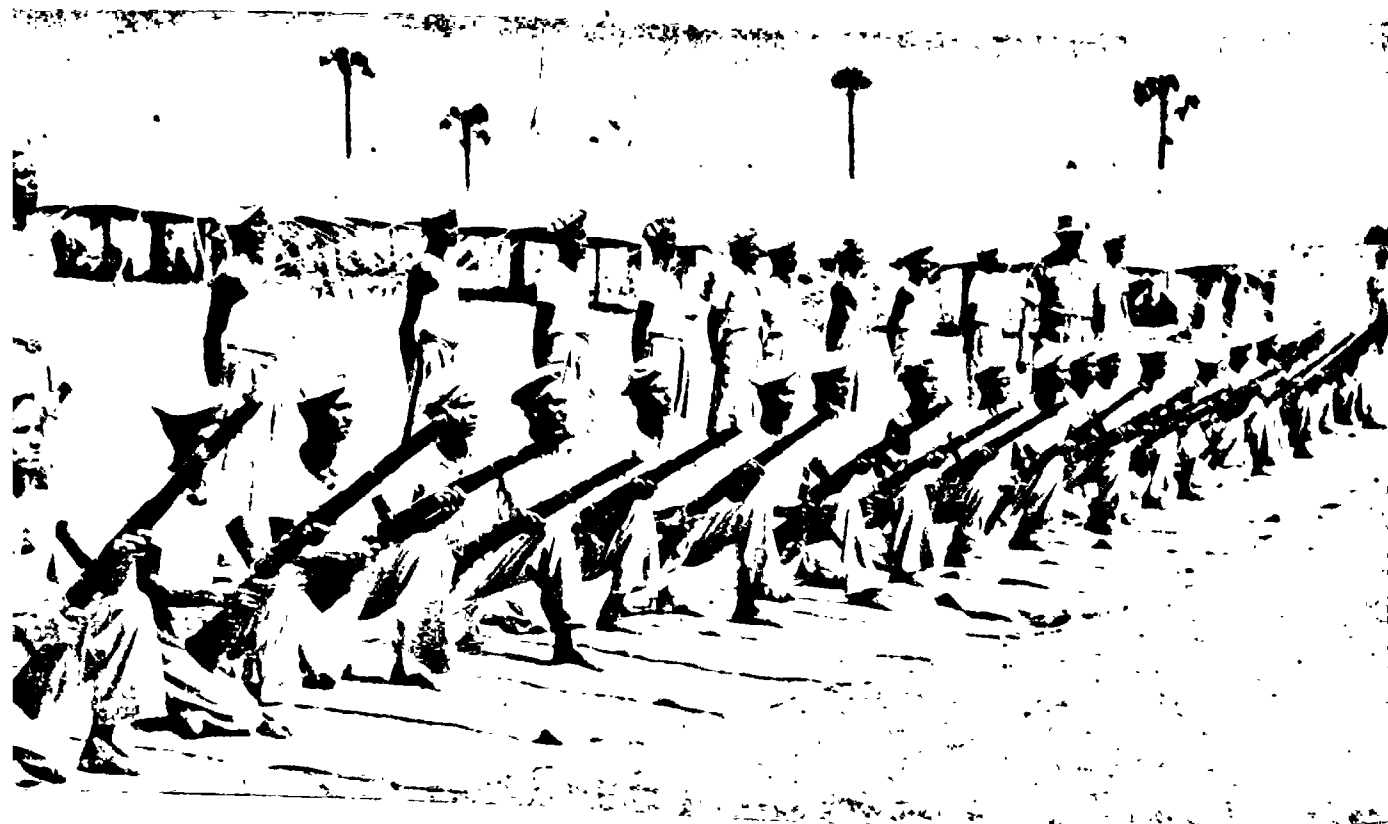


SPEAKING OF PICTURESE . . .

The voters settled in long queues long before the commencement of the polling to exercise their franchise. Long queues were noticed in almost every booth and the interest evinced by the blind, dumb and the mute was a sight.

The counting of votes was a big job: The officials did it quickly and efficiently. In Madras City thousands thronged at the place of counting and listened eagerly to the periodical announcements of the results.





Lok Sahayak Sena Catches Popular Imagination

Dhamarapakkam Camp A Great Success

The Lok Sahayak Sena was started two years ago with the aim of getting people interested in national service and inculcate in them a sense of discipline and self-reliance.

Under this scheme, 200 camps are held throughout the country imparting training to 500 men in each camp, bringing to a total of one lakh every year. Training in a LSS camp lasts 30 days and consists of 208 periods which are subdivided for various subjects. Fifty-five periods are set apart for drill without arms, 65 for rifle training, 6 for Hygiene and sanitation, 10 for first-aid, 16 for Field Engineering and 26 for educational training. Literate trainees are given a broad picture of the Second

Five-Year Plan, Community Development Projects, Civil Administration and such like subjects. Illiterate trainees are given rudimentary education by their literate colleagues.

During training, the camp is divided into three companies, each commanded by a Junior Commissioned Officer. Four platoons of 40 men each make up a company. The camp life coupled with the progressive training imparted during the month adds to the physical fitness of the trainee, who returns home with a better sense of discipline which goes to make up for good citizenship.

Eligible volunteers in Lok Sahayak Sena Camps are recruited and enrolled by the Army Recruiting Organization

in consultation with civil authorities. Recruitment starts a few days before the commencement of a camp, and the response so far has been excellent.

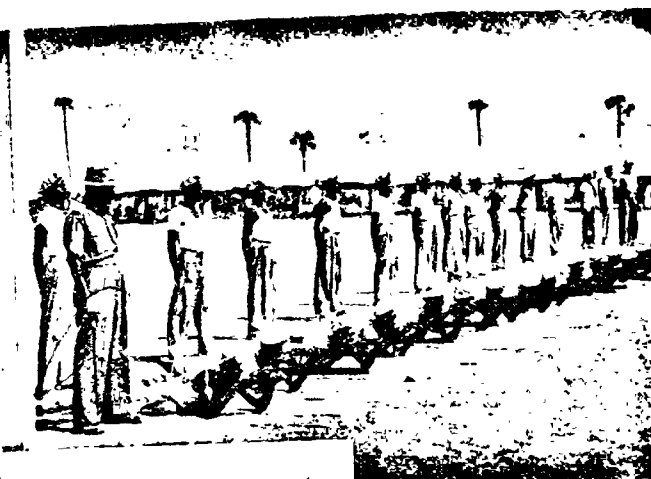
To man the camps, about 34 training teams, each commanded by a captain and with a permanent staff recruited from among ex-servicemen has been set up. After initial training, the teams have been allotted to the three commands, corresponding to the number of camps to be held in each.

In addition, an extra team has been set up in each command to impart refresher training to the other LSS training teams and also to keep them in full strength. This team is commanded by a Major assisted by a Captain.

The Lok Sahayak Sena Camp at Dhamarapakkam



The security of a particular area largely depends on how it is protected from enemy infiltration. So 'Guard Mounting' is an important job taught in the Camp.



Holding the rifle in correct position is a pre-requisite if one should not misfire.



The trainees at the Camp are made to keep fit by physical exercises. A sound health is necessary to participate in any Nation-building activity.



Sri M. Bhakthavatsalam, Minister for Agriculture, reviewing the parade on the closing day of the Camp. Captain Bhaskaran is with the Minister.

The Sainiks saluting the 'Lok Sahayak Sena Flag'.



The aim and functions of Lok Sahayak Sena is made clear in a message given by Dr. Kailash Nath Katju, Defence Minister, recently. The message says :

"The Lok Sahayak Sena has made a great appeal to the people of India, young and old, rich and poor, rural and urban, indeed to people of all classes and communities living through the length and breadth of India. It has caught popular imagination, and though it was started less than two years ago, it has become a household word throughout the country. The target of training 100,000 people a year has been achieved. Large numbers apply and sometimes many have to be refused. The aim of this Sena is well known. It is not intended to be a part of the Military Forces of the Republic of India, though I feel sure that, if a call is made during any period of national emergency, every single Sainik of the Lok Sahayak Sena will flock to the colours and offer his services to the national cause. The principal aim of the Sena is to make the Sainik a disciplined citizen of India, and to impart to him elementary knowledge not only of arms but also of the duties of citizenship. Every Sainik by his residence in camp for a month under military discipline benefits greatly in every way, and his outlook is broadened and his mental horizon widened. He makes friends in camp and I trust that this friendship lasts for many years. The Lok Sahayak Sena is a voluntary organization, but it is a matter for joy that all Sainiks at the end of their training

Dhamarapakkam Camp

One of the two hundred Lok Sahayak Sena Camps was conducted at Dhamarapakkam in Chingleput district last month. The people of the surrounding villages especially the youths evinced great interest and rushed for admission in the camp. The village elders co-operated with the authorities in making the camp a grand success. The camp had the prescribed maximum of 500 trainees. Captain Bhaskaran was the officer-in-charge of the camp.

Sri M. Bhaktavatsalam, Minister for Agriculture presided over the valedictory function and took the salute during the March past of the Corps.

The Minister addressing the trainees congratulated them on their smart turnout and their picking up disciplined military habits in such a short time. He drew a contrast between the training given under alien rule and the people's Government and

said that the volunteers were not only fitted for defending the freedom of the country at the times of emergency but for several activities under the National Extension and Community Development Schemes. He cited many instances to show how army had done marvellous work during the flood havoc and cyclone disaster in the Southern districts.

The Minister said that the trainees throughout the State should assemble atleast once a year and continue these activities. He congratulated captain Bhaskaran for the able training he had imparted and complemented the villages who had gathered in large number for the enthusiasm they had evinced and the co-operation they had extended to the authorities.

Sri A. Venkatesan, Collector of Chingleput district distributed the prizes to the trainees who came out successful in the sports.

of their own free will, sign a pledge to offer their services whenever called upon to do so in times of natural calamities and other emergencies. I do hope that every Sainik acquires

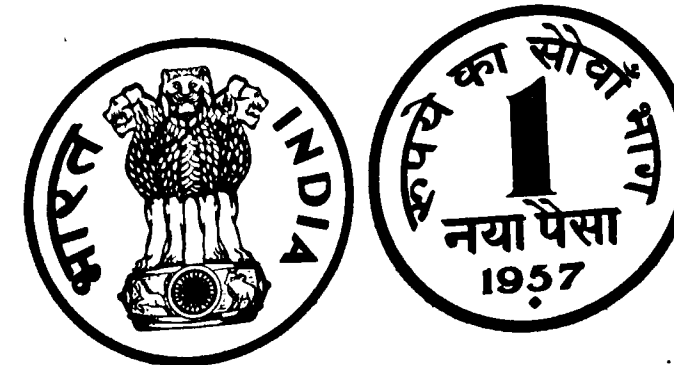
the habit of leadership by his residence in the camp and becomes an instrument for rendering efficient help and co-operation for the betterment of his village and his township."



Decimal Coinage Comes Into Circulation

Naya Paisa Replaces Anna System

By PITAMBAR PANT.



From the first day of this month of the year [April 1, 1957] a new set of coins comes into circulation in our country, which introduces the decimal system of coinage without, in any way, altering the value of the Rupee. This system, at the same time, puts an end to certain anomalies in present practice.

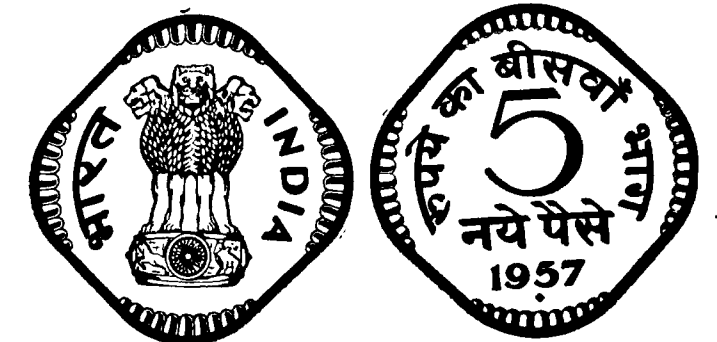
The "Rupee" is at present divided into 16 annas, each anna into 4 paise, and each paise into 3 pies. 192 pies make a Rupee. But the value represented by the pie at prevailing prices is too small to require its use even in small transactions of our daily life. The pies have not, in fact, been minted since 1942 and have virtually disappeared from circulation.

Few of the younger people of today are likely to have even seen a pie. The smallest coin practically in use is, therefore, a paise, 64 of which make a rupee. It is the paise which is engaged in the humble tumble of life. Whether in remote villages, busy lanes of cities, in buses, and trams, it is the paise which comes to the aid of ordinary folk. The pie keeps off all this dust and din and if at all it plays a role, it is in the comfortable company of the rate fixer, accountant and the like.

But so influential has been the pie that notwithstanding the verdict of the

people and the time against it, it has clung on to its position in the accounts which continue to be represented in the form of rupees, annas and pies. Poor paise has no official status, no rights and recognition. Like a famous man's son, it has no introduction of its own except in terms of its famed parent, officially known as quarter-anna or 3 pies.

Such things did happen in our social life in olden days and even now, would you not agree? Men and women—like the pie—sometimes get into important places, more by virtue of their lineage, social ties and influential contacts than their merit and usefulness. The humble folk, like the paise, who toil and sweat do not get enough recognition and others who avoid soiling their hands, manage to manipulate things to their advantage.



These are evils and are contrary to the democratic values we have accepted. We have to put an end to them and step by step we are doing so.

Dignity of Paisa.

The new system of coinage restores the dignity of the Paisa which comes to us with lighter burden and brighter look as Naya Paisa. The coinage reform is symbolic in other ways. It incorporates many of the well-known slogans of progressive democracy. "Land to the tiller" has its counterpart in the primacy given to the Naya Paisa, the smallest coin, the humble one which takes the most knocking; it receives its due place in the accounts alongside the rupee. 'No Intermediaries'.

The Anna, the Zamindar in the realm of accounts, ceases to be in the new dispensation and the Naya paisa is put in direct and simple relationship with the main coin of account, the Rupee, 100 naya paise being equal in value to one rupee. Three years have been provided for the drones, the pies, and the intermediaries, the annas, to wind up their affairs. But true to our tradition, they receive the fullest compensation possible in terms of naye paise.

The scale of compensation, as approved by our Parliament, has been put out by the Government in the form of a Ready Reckoner and widely circulated among the public. Every now and then the newspapers carry these in their pages. The Ready Reckoners provide for all contingencies, but as far as common people are concerned all that they have to keep in mind is that four annas will be exchanged for 25 naye paise, which will represent an exact equivalent; but for amounts less than four annas although, there may not be exact equivalence in whole naye paise, a simple formula equating two old paise to three naye paise will be satisfactory for practically all purposes.

With little effort anyone should satisfy himself that the error involved by assuming two old paise equal to three naye paise or one anna equal to six naye paise will be trivial indeed for smaller transactions. From what I gather from my talks with some small shopkeepers, they may find it much simpler in their daily transactions to treat one anna equal to six naye paise for amounts smaller in value than four annas. If the shopkeepers and customers both agree to it, there would be little argument about conversion.

As daily purchase or sale are two-way transactions and as losses at some points of the scale of conversion are offset by gains at other points of the scale, it can be safely assumed that, on an average, no one would stand to lose or gain merely because of the rate of conversion prescribed. In any case these are small inconveniences of transition and it is easy to exaggerate their importance.

Enhanced Service.

The thing to remember is that the naya paisa is smaller in value, by one

third, than the current paisa and it is thus basically more serviceable and of benefit, especially to the poor people. This can be illustrated by an example. The present situation where the paisa stands for three pies and the pie as a coin does not exist, is like that of a hospital which claims to have one nurse for every patient but actually provides one for three of them. Now, one nurse for each patient may be quite unnecessary; the patients may not require such close attention and most of the time the nurse may be kept idle. Even worse, too many of them may produce overcrowding, create unnecessary administrative difficulties and cause needless expenditure.

On the other hand, we may find from experience that one nurse for three patients is not enough to give proper attention to the requirements of patients and that the proper charge would be one nurse for every two patients. This would lighten the burden on the nurse, make her more efficient and effective and ensure closer attention being given to the patient. Obviously, there is everything to be gained in this reorganization. The reform of our coinage is something analogous. By introducing the new nurse, naya paisa, with two-thirds of the work-load of the old, the standard

of service to the patient, the common man, is greatly enhanced.

It is easy to see how this happens. The market price of a packet of 10 cigarettes of a certain well-known brand is 11 annas. If one cigarette alone is desired you are required to pay five paise. The price should have been 44 paise divided by 10, that is 4.4 paise or 13.2 pies but as the smallest coin actually available is a paisa, the shopkeeper can fix the price either as four paise or five paise. At the rate of four paise a cigarette, he would realise only 10 annas for a packet of 10 cigarettes which amount may be even less than his purchase prices. With the best will in the world, therefore, he has no choice but to fix the price at the nearest rounded up figure of five paise. This is equivalent to 15 pies whereas the reasonable price, as we have seen, would be 13 pies. The result is that the customer is obliged to pay almost two pies more than the correct price in the transaction without any one to blame. This is in the present situation, and although we may have become used to it, we should not forget that we are all the time losing whole pies, not merely fractions of them, in small transactions.

(Continued on page 34)



DAIRY FARMING

By DR. D. PATTABIRAMAN, G.M.V.C., A.I.D.I., Director of Animal Husbandry, Madras.

Dairy Farming is considered as a secondary occupation by our farmers and not as a main occupation as is found in advanced countries such as New Zealand, Holland, Denmark, etc. In those countries many farmers with land carry out farming operations and feed the entire produce of the land to their cows to convert into milk. Their main occupation is "Dairy Farming" in the correct sense of the word. In India such instances are very few. In the first place, the average holding owned by a farmer is very small. He keeps only one or two milch cattle and uses the produce of the land for feeding his cattle to a limited extent. His main occupation is to produce cash crops. Even in our Dairying tracts, it is a common sight to see large tracts under cotton or tobacco cultivation and the milch cattle go without adequate fodder. There is the other extreme too, particularly in cities. There, the commercial cow-keepers maintain milking herds without an inch of land and depend on purchased fodder and cattle feed. Because of this, they cannot rear their replacements and calves have no place in their general management.

The total output of milk in India however is exceptionally large. The gross output of milk is estimated at 6,000 lakh maunds which is valued at Rs. 700 crores of rupees per year. Compared with other countries, India stands second in volume of milk production, her output being exceeded only by the U.S.A. If such enormous quantity of milk is produced in this country, it is because of the size of the country and the very large number of cattle maintained and not due to any intensified system of Dairy Farming as is understood in the western countries.

Climatic condition affecting milk production.

Before I proceed with the subject, however, I must give you an idea about the climate of this country as it has a

direct bearing on production of milk and its handling. It is generally extreme as regards heat, cold and rains. During the summer season when the temperature generally goes high, milk production is at its lowest level and may drop as low as 50 per cent of the winter production. The variation in rainfall is also marked from region to region, some places like the West Coast, West Bengal, Assam, etc., getting as much as 200 inches with the other extreme down to about 5 inches as in the rigid regions of East Punjab, Rajasthan, Saurashtra and Kutch. Along with these extreme fluctuations the uncertainty of rainfall is also equally great. This phenomena has a marked bearing on the quality of cattle and their performance. A year of drought occurring even after a good spell of rainfall will undo what has been done in the favourable period by adversely affecting the condition of the cattle. Nearly 4,000 miles of coast line again makes for a humid climate all along the sea coast.

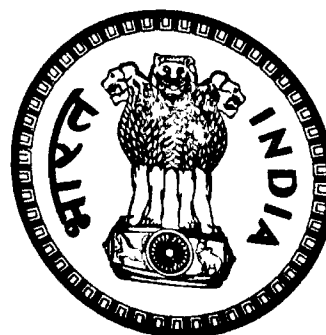
The above wide variations have produced a set of conditions which create uncertainty with regard to output of milk as well as of finding a lucrative market for it. Since bacteria somehow find their way into milk and milk is an ideal medium for them and since warmth and humidity help their rapid multiplication, it is necessary to stress that handling of milk under tropical conditions is much more difficult than in countries with a cooler and therefore a more favourable climate. It is worth mentioning in this connection the experience of some of the dairies in England losing several thousands of gallons of milk due to souring when the atmospheric temperature rises near about 85° F and above. In most parts of this country we have at least 300 days in a year when the day temperature is well above 85° F. But no such spoilage of the kind mentioned above at such a temperature has been noticed in this country. It is difficult to say

whether milk produced in the tropics is more immune to bacterial action or has certain germicidal properties that it can withstand higher atmospheric temperature for a longer time without spoilage.

Production of milk.

The total gross production of milk in Indian Union is 6,000-lakh maunds and the net annual production of hand drawn milk after deducting the quantity of milk consumed by calves is 4,000-lakh maunds. 54.4 per cent of this total production comes from buffaloes, 42.8 per cent from cows and 2.8 per cent from goats. For producing this amount of milk some 67 million milch cattle are being maintained comprising 46 million cows, 21 million buffaloes and 8 million goats. Though such large number of milch cattle are maintained for milk production, their average lactation yield is very poor. It has been estimated that the average lactation yield of a cow is 415 lb. per annum and that of a buffalo is 1,100 lb. per annum. This low milk yielding capacity of the animals is one of the main reasons why dairying has not been taken as a profitable industry in this country. The factors responsible for the low milk yield of cows in this country have been studied by many investigators who have all attributed the cause to poor feeding, breeding and management. According to one authority, accepted standards of animal nutrition would place the bulk of India's dairy cattle in the category of acute malnutrition. It may be mentioned here that a fair proportion of the village cattle if fed better can give 50 per cent more milk yield than at present. The fodder and concentrate supplies are both inadequate; the available quantities being only 60 per cent and 40 per cent respectively of the actual requirements.

Except for a small number of well defined breeds, the vast majority of Indian cattle are of non-descript type



with poor milking quality in them. There are nearly 49 pure cattle breeds in this country. They can be classified under three main headings such as milch, draught and dual purpose, the latter possessing the qualities of milk production as well as work. Here I shall mention only the names of the milch breeds of cattle of all-India importance.

Cows.

1. *Sahiwal*.—A typical milch breed perhaps the only dairy breed of its kind in India. Its home tract is northwestern parts of Punjab. The highest record attained is 12,000 lb. of milk in 300 days. Its one main defect is lack of adaptability to changed conditions which brings about a marked drop in its performance when removed from home tract. This has prevented its spreading all over the country as a dairy animal.

2. *Red Sindhi*.—The home tract is Sindh in Pakistan. It has also great ability to adopt itself to changed conditions. This has enabled it to spread throughout the country as a milch animal. Its best performance is 11,400 lb. in a lactation recorded at Hosur Cattle Farm in Salem District.

3. *Tharparkar*.—Original home is the Thar desert of Sindh. It has also great ability to adopt itself to all changed conditions. But it could not spread itself wide in this country because it could not be obtained in the same abundance as the Red Sindhi. The highest performance is 11,000 lb. in 300 days.

4. *Gir*.—It is one of the oldest of the indigenous breeds of India with its home North Sourashtra. It is classified as a dairy breed but it has the ability of producing good quality work animals as well. Its average lactation yield is 3,600 lb. and its record performance is 8,000 lb. in 300 days.

5. *Hariana*.—Next to Sahiwal it is the next important cattle breed used for milk production in the Punjab. Its home is the arid area of the Punjab and it forms the main source of supply of work animals as well for that region. As such it comes under the classification of dual purpose breed. Its lactation performance is 3,500 lb. and the recorded best performance is 6,000 lb. in 300 days.

6. *Kankrej*.—Essentially a dual purpose breed, it plays an important part in milk production in the arid regions of Gujarat and Kutch. This breed used to be exported in large numbers to South America for cross breeding with local breeds for beef production. Besides producing good quality beef, this breed also contributed a high degree of immunity against the disease known as "Tick fever" which was causing heavy mortality among cattle in America. Its lactation performance averages 3,000 lb. the best recorded yield being 5,500 lb. in 300 days.

7. *Ongole*.—A dual purpose breed found in Guntur and Nellore districts of Andhra State. It contributes a great deal towards milk production in Madras City. Just like Kankrej breed, this breed was also in great demand in South America especially in Brazil for the production of beef cattle. Its average lactation yield is 2,800 lb. the best recorded yield being 6,000 lb.

Buffaloes.

1. *Murrah*.—It is the one breed of buffalo which is in great demand throughout India for milk production. Its home is the Punjab. As its name implies, it has horns in spirals. Its average lactation is 4,500 lb. and the highest lactation recorded being 10,000 lb. in 300 days.

2. *Nili or Rari*.—A sister breed of Murrah confined to the regions between the Punjab rivers. It is not so adaptable to changed conditions when removed from the home tract. Its average lactation yield is 4,500 lb. and the best recorded performance is 10,200 lb. in 300 days.

3. *Meshana*.—Its home tract is North Gujarat. It is a very hardy breed and perhaps the most economical milk producer of all the breeds of buffaloes. Its average lactation yield is 3,500 lb. the best recorded being 6,000 lb. in 300 days.

4. *Surti*.—A sister breed of the above, it comes from the southern part of Gujarat. It has put its home tract in the map of India through its output of table butter which meets the need of practically the whole of India, and also for playing an important part for the supply of milk to Bombay City 3,500 lb. the best recorded performance being 5,500 lb. in 300 days.

5. *Jaffarabadi*.—Its home tract is the Gir forest of Sourashtra. Among the buffalo breeds, it is the largest in size, some animal touching over 3,000 lb. in weight. Its main defect is that it is an irregular breeder. Its milk has a very high percentage of fat (the highest recorded being 13 per cent) and hence it has earned for its homeland the reputation of producing the best ghee (Kathiwari or Porbandar). Its average lactation yield is 3,500 lb. the best recorded being 5,000 lb. in 300 days.

6. *Nagpuri*.—A breed of buffaloes comparatively not so important as those dealt with before but important from the point of view of the climatic and topographical conditions prevailing in Peninsular India. In fact it is the only well established buffalo breed in the south which can stand up to hard conditions and scanty fodder and yet proving an economic milk producer. The lactation averages 3,000 lb. with the best performance touching 4,500 lb. in 300 days.

Seasonal variations of milk production.

Throughout the world, during certain months of the year, there are more calvings in milch cattle than in other months. The lactation lasts from eight to ten months and there is a fairly uniform yield curve which gets to its peak in about four to five weeks after calving, remains steady for eight to ten weeks and then gradually tapers down and disappears when the animal is dry. These factors account for flush season and the lean season in milk production. Climate which reflects on the availability of fodder has a bearing on this. Cows and buffaloes react differently to climate. Cows generally calve in large numbers in comparatively dry season during March and April and again in October and November. Due to this, the monthly variation in milk is less pronounced in a herd consisting only of cows. In the case of buffaloes it is quite different; they have only one peak season of calving during the wet months of mid-August to mid-October which results in a marked increase in milk production from October onwards to January each year. Thereafter it begins to fall off and is at its lowest level during the warm and dry months of May and June. Wherever the buffalo is the main producer of milk (and it is so in most parts) there are marked seasonal variations, viz.,

Per Capita Consumption of Milk Very Low Now

decrease in the availability of milk during the summer months and the reverse during the winter.

Utilization of liquid milk.

Over 85 per cent of the human population and roughly 95 per cent of the milch cattle in this country are in our rural areas. Only the remaining numbers are in the urban areas. In Great Britain, for example, where 80 per cent of the population is urban, nearly 90 per cent of the home produced milk and its products are consumed by the urban population. In the U.S.A. where the urban population is roughly 60 per cent of the total, nearly 75 per cent of the home produced milk and its products are sold for urban consumption. India is in a different position. While the ratio of urban to rural population in Great Britain is 1:4, the ratio in India is 9:1. The urban population therefore provides only a limited market for milk.

Per capita consumption of milk.

The average daily per capita consumption of milk in the Indian Union has been estimated at only about 5½ oz. This is much less than in some of the western countries. The consumption of milk in India varies from tract to tract according to production of milk and density of human population.

In view of the special importance of milk as the sole source of "First-class" protein the quantity needed in the average Indian dietary can best be calculated on a basis of protein requirements. According to European standards an average man would require an intake of 100 grams of protein per day. Of this roughly one third should be first-class protein. According to Indian standards the requirements is somewhat lower, namely, 85 grams of total protein of which about one quarter should be of animal origin. Using these two

standards as a basis for calculation of the milk requirement, the following figures are obtained.

	European standard.	Indian standard.
Daily requirements of first-class protein per head.	37 gms.	16 gms.
Amount of milk needed to supply this quantity of protein	1,000 gms.	420 gms.
or		
a daily intake of	35 oz.	15 oz.

It is seen from the above that the standard European requirement coincides closely with the actual consumption in the self-supporting countries while in India the actual consumption is far lower than the standard requirements.

Out of the total milk produced, a little over 36 per cent is consumed in liquid form, a little over 43 per cent is converted into ghee, about 9 per cent into sour milk and the remaining 11 per cent accounts for products such as ice cream, khoa, etc. Cow milk is preferred for drinking particularly in Madras and Bengal and buffalo milk is utilized for manufacture of products.

Manufacture of ghee.

Of the milk products ghee is the most important one, as it consumes 43 per cent of the milk produced in the country and forms the only form in which animal fat is accepted by the overwhelming vegetarian population of India. Ghee keeps good for long periods even under tropical conditions of storage and ordinary packing. This accounts for its extensive manufacture.

Buffalo milk being richer in fat than cow's or goat's milk, gives a larger outturn of ghee. The buffalo ghee is white in colour, is hard and has a well defined texture. Cow's ghee is yellowish in colour and has a softer texture. While some stress is laid upon the nutritive and digestive value of cow's milk for consumption in liquid form, the milk of buffaloes is always preferred both for giving an

increased outturn and for obtaining a superior quality of product. In Madras State, Tiruppur is an important centre for the assembling of large quantities of ghee for exporting to other places, particularly Madras City.

Price of milk in relation to the average individual income.

It is surprising how in spite of ignorance about nutritional matters generally almost everyone knows that milk is an excellent food. If less of it is consumed it is only due to the fact that it is comparatively expensive and almost beyond the reach of many. For instance, if the wages of an Indian skilled or semi-skilled worker is taken as Rs. 3 per day on an average, he will have to work for one hour and 20 minutes (nearly 20 per cent of his daily work hours) to be able to purchase one seer of milk (2 lb.) at 8 annas per seer. In the U.S.A. taking the retail price of milk to be about 20 cents per quart (Re. 1 per seer) and the daily wage of a worker to be about 13 dollars (Rs. 65) he has to work only for 7½ minutes to purchase the same amount (less than 2 per cent of his daily working hours). In the United Kingdom the average wage may be taken at £ 8 per week or Rs. 15 per day. The retail price of milk is 1s. 2d. per quart (As. 10 per seer). A person has therefore to work for 20 minutes to earn one seer of milk. It is evident therefore that in this country due to the low income of the people many go without the addition of milk in their diet. There is therefore a great need to put on the market products like "Toned milk" and even skim milk so as to bring this valuable food within the reach of the masses and popularize them through propaganda on the right lines.

Collection.

In rural areas where the bulk of the cattle and human beings exist there is very little collection of milk in the sense understood by Dairymen. Only

Co-operative Effort : The Role of Madras

about a fifth of the entire production is needed for urban areas and only this quantity may be said to undergo a system of somewhat organized collection. Here again various types of agencies undertake collection of milk. There are the producers who also collect milk from their neighbours and take it to the urban areas. Then there are professional collectors of milk who may carry milk to the urban areas.

Collection on a large scale presents difficulties because of the scattered production of milk in villages. For instance the average production of milk in the country is less than 2½ maunds (20 gallons) of milk per day per village. When it is considered that a major portion of it is converted into products or retained for domestic use, the marketable surplus available at a time (in two lots a day) is very small per village. It is therefore not possible to collect a reasonable quantity of milk in all the areas. Only in certain dairy tracts and also in the vicinity of cities that production is concentrated and collection becomes easier, although even there it can hardly compare with the output per square mile in some of the dairying countries abroad, where it is possible to collect fairly large quantities of milk daily.

Treatment and processing.

There is practically no consumption of raw milk as such in this country. Almost religiously all the consumers boil the milk before it is used. There is no doubt that this universal practice has arisen out of conditions of production, handling and the climate prevailing in this country.

Military Dairy Farms were the first to introduce pasteurization of milk. Some private dairy concerns also adopted it for the civilian markets at some of the cities. During the last few years certain State Governments have taken to pasteurization in connection with their respective city

milk schemes. On the whole however a very small fraction of the entire milk consumed is pasteurized before distribution. A still smaller fraction is bottled and supplied to consumers.

Transportation and distribution.

It has been estimated that only about 10 per cent of the milk produced in this country undergoes transport ranging from 10 to 15 miles between villages and the adjoining urban areas. All types of transport including head-loads, bicycles, motor vehicles and rail are used for in the transport of milk. Raw milk generally reaches the place of consumption within about four hours of milking. It will not have much life in it left, unless it is immediately subjected to heat treatment, that is boiling.

The requirements of the household vary from 1 lb. to 4 lb. or so. The day-to-day demand also varies. Loose milk is therefore distributed out of a can or pot with the help of a measure into the vessel of the consumer. Being raw milk distribution has to be done twice a day, but usually the morning demand is more than the afternoon demand.

Quality.

Perhaps there is no other food product which can be adulterated so easily and without any cost at all. The responsibility of maintaining the purity of milk is primarily that of the producer, processor and distributor. This is generally the case in countries advanced in dairying. This outlook has also helped the consumer to appreciate the quality, pay a premium for it and encourage consumption of more milk and dairy products. Unfortunately in this country such a condition does not exist with most of our producers and consumers.

Beyond the responsibility of the producers, processors and other intermediaries, the onus of attending to matters relating to production and

maintaining the quality of market milk is on public bodies such as the municipalities and others. There are enough rules and regulations and quality standard prescribed for the supply of pure milk and milk products. There are generally three legal standards, one for buffalo milk, one for cow's milk and the third for mixed milk under which fat and solids not fat are prescribed. The difficulty is that their application and enforcement leaves much to be desired and therefore frequently an honest dairyman has to face unhealthy competition without redress. It is however gratifying that, of late, public consciousness in this matter has been aroused and action being taken to get right matters on an all India basis.

Co-operative dairying.

At one time a situation existed in most parts of the country when the milk produced in rural areas could not find a lucrative market on the one hand and on the other there was a crying need for milk in the urban areas. Thus there was a wide gulf between the majority of the producers and the consumers. This gulf was to be bridged. India being a country of small holdings and milk production being a secondary occupation for the cultivator, it was realized that the development of the dairy industry of the country must begin from the doorstep of the average cultivator and through the improvement of his cow. Again as the resources of the average cultivator were very limited, very little could be achieved through his individual effort, especially in the dairy line which called for larger investments and involved larger risks than in his agricultural activities. Unless therefore a collective effort was resorted to, progress could not be made in the development of dairying. The best way of doing it was considered through co-operative effort. This brought into being the formation of co-operative milk supply societies in rural areas. The first successful effort

was made in this direction in Madras in the year 1928 when the Madras Co-operative Milk Supply Union was established. In general the working of the Co-operative is that a primary society of milk producers is formed in a village. Several such village societies arrange to collect their milk twice a day and deliver in suitable containers on the main route leading to an urban area or consuming centre. A motor lorry picks up the milk supplied at various centres on the main route and deliver it at the dairy. The milk is pasteurized in the dairy and delivered to the customers according to the requirements. The dairy is controlled by a union formed by the federation of the primary societies. The union generally maintains technical staff for the proper processing of milk.

The biggest and most prosperous union to-day is the Kaira Co-operative Milk Supply Union, Anand, Bombay State, which is playing an important part in the milk supply of Bombay City. The union collects the milk produced by 23,000 buffaloes in 80 villages covered by its 58 affiliated societies spread over a radius of 14 miles around Anand. After pasteurization by modern machinery about 90,000 lb. of milk is daily despatched in cans kept in special refrigerated wagons to Bombay which is 266 miles away. The next biggest is the Madras Milk Supply Union which now comprises of 164 feeder societies spread over a radius of 40 miles round Madras. It handles about 32,000 lb. of milk a day.

Dairy schemes included in the Second Five-Year Plan of Madras State.

Considering the importance of the co-operative movement, a number of schemes have been included in the Second Five-Year Plan to augment the milk production and consumption in this country. The following schemes have been included in the Second Five-Year Plan of Madras State to augment the milk production and consumption in this State :—

- 1 Establishment of pasteurization plants in 10 milk supply unions.
- 2 Establishment of five salvage farms for salvaging dry cattle.
- 3 Increasing the daily production of milk from 40,000 to 60,000 Madras measures during the Plan period.
- 4 Organization of 12 cattle breeding societies.

5 Hygienic handling of milk by the Madras Milk Supply Union by providing insulated vans for the transport of milk and construction of cattle sheds at feeder societies.

Special considerations relating to city milk supplies.

The supply of milk to large cities justifies special consideration by virtue of two acts; first because the per capita consumption of milk is very low in the cities and second because certain special difficulties are involved in the provision of adequate supplies of milk in densely populated areas.

One feature which is characteristic of all the cities is the large cattle population which is housed within the municipal boundaries. This is undesirable on hygienic grounds alone. But there is a more fundamental objection to the housing of cattle in urban areas. The production of milk under such condition is very expensive. The cost of accommodation for cattle is high. The cost of feeding stuffs is also inevitably high since these have to be transported into the cities from rural areas. Again the depreciation on stock is very considerable. Usually newly calved animals are brought into the city for milk production and are disposed off when they go dry for low prices. Very often those dry animals find their way to slaughter-houses. Then there is a gradual depletion of cattle wealth and many valuable breeds are almost becoming extinct.

Broadly speaking there are two main solutions to the problem of milk supplies to the city. One is to replace the entire quantity of milk produced in city by milk imported from rural areas, as is the case in western countries. The second one is to colonize the city cattle in suitable areas outside the city where proper control over milk production could be exercised. For various reasons the first method is to be preferred over the second but sometimes conditions would not permit of this being adopted in all cities. A study of the situation revealed in connection with the All-India Dairy Development Plan that the establishment of cattle colonies would have to be adopted to a certain extent in most of the large cities in India along with the importation of milk from rural areas. This becomes necessary to ensure that in the event of any

(Continued on the next page)



Sri P. S. Kumaraswami Raja

SRI P. S. KUMARASWAMI RAJA, former Governor of Orissa and former Chief Minister of Madras, died at the General Hospital, Madras, in the early hours on 16th March 1957.

Born in 1898 in Rajapalayam, Ramnad District, Sri Kumaraswami Raja entered politics in 1917, when he participated in the Home Rule movement. He underwent imprisonment twice for taking part in the non-co-operation movement in 1932 and again in 1941. An ardent Congressman, he was Vice-President and President of the Ramnad District Congress Committee and was for a long time member of the A.I.C.C. and the Tamil Nad Congress Committee.

He was elected to the Central Assembly in 1934 and to the Madras Legislative Assembly in 1937. He was Minister for Agriculture in Madras in Sri Prakasam's Cabinet in 1946, but resigned the next year. He became the Chief Minister of the State in 1949 and continued in that office till the 1952 general election.

He was appointed Governor of Orissa in 1954, which post he relinquished in 1956 due to ill-health.

Sri Kumaraswami Raja gifted his house in Rajapalayam in 1953 to the public to be used for the advancement of art, research and culture.

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(Continued from page 24)

Let us see what happens when decimal coinage comes in vogue. The price of the same cigarette packet in naye paise will be 69, and one cigarette would cost 7 naye paise, one naya paisa less than the equivalent value of 5 paise, which is 8 naye paise. One might say that the shopkeeper may not pass on the advantage to the customer and present to him the price of 8 naye paise as seen from the conversion table against the value of 5 paise.

This could happen if there were no other shopkeepers in the field. As it is, if another shopkeeper finds that he gets his expected margin even by selling an isolated cigarette at 7 naye paise, he would be only too eager to tempt the customer to himself by offering this better bargain. This constant threat, which is also called healthy competition, will discourage any one of the shopkeepers to charge more than this minimum economic price.

Retail transactions.

This is a general proposition and one can safely assume that for retail transactions, the smaller prices will tend to

become somewhat more favourable to the customers when prices are expressed in naye paise. In wholesale prices, the conversion of annas and pies to naye paise will mean insignificant change—the difference of a quarter or a half naya paisa in the comparatively big sum being of no material consequence at all.

Often another difficulty is raised. If there is a small rounding up in rates and prices due to conversion, would not this mean sizeable losses if the transaction involves large quantities? This is somewhat hypothetical. Even now no one buys a *mun* (maund) of rice at the price for which a *chhatak* is sold in the retail shop the price in *mun* (maunds) is quoted separately and is of course considerably less than the price obtained by multiplying the *chhatak* value by 640 (640 *chhataks* make a *mun*).

As for rates, such as 5 pies per mile for railway travel, it is obvious, ordinary people are not expected to work out their own fares. Their tickets have the amount written on

them; in future instead of Rupees, Annas and Pies the amount would be in Rupees and Naye Paise. It is for the rate fixing authorities to get the various rates such as pies per mile for railway fare, annas per rupee for rebates, paise per rupee for sales tax, etc., which have been based so far on annas, paise and pies, disentangled from these obsolete terms and have them rationalised and refixed in naye paise per rupee, which is the same thing as fixing the rates in percentage form. This will greatly facilitate calculations, and sooner it is done the better.

So far we have been talking of the benefits naya paisa brings to the common man in his every-day transactions. The main advantage of the decimal system of coinage is, of course, the great facility and simplification it offers in calculations and accounting. This is all too well known to require recapitulation now. This facility is further increased if weights and measures are also in the metric system. Our enlightened Parliament has already authorised the Government to go ahead speedily with the whole reform. Decimal coinage leads the way.

Progress of Rural

Electrification . . .

(Continued from page 4)

proposed there is commissioned. So, to meet our further needs new sources have to be tapped and a sum of Rs. 24 lakhs has been set apart for the investigation of new hydro-electric schemes. Two of the most important schemes under investigation are the Mettur Tunnel Scheme to utilise the irrigation discharge at Mettur Dam which will give 200,000 k.w. of seasonal power for months and the Kumbhar-Amaravathi Hydro-Electric Scheme in the Palni hills which will add 45,000 k.w. to the grid.

Madras at the end of the Plan period.

When the schemes in the Second Plan are completed, the installed capacity, the aggregate demand, units generated and the length of lines will all be more than doubled. The grid is expected to cater power to about 7 lakhs of consumers. In rural areas about 8,000 villages and about 7,000 pumpsets will derive the benefit of electricity. The per capita consumption of electricity which is a recognised index of the economic advance of any State is now 21 units for the Madras State and it is hoped to raise this figure to 50 units by the end of the Second Plan period. We will be still far behind the Western countries where the per capita consumption is of the order of 2,000 to 5,000 units. We have therefore to go a long way ahead if we are to attain a standard anywhere near that of the Western countries.

With the unremitting efforts of all concerned we hope to march ahead in the field of socio-economic development of our State by the spread of electricity and raise the standard of living of the common man and bring rightness and happiness to every one.

The four electricity systems of the State electrified 138 villages during January 1957; and among the service connections given, 1,171 were for agricultural purposes, 2,471 domestic and 12 industrial. 118 miles of H.T. and 92 miles of L.T. lines were energised to carry electricity to more villages. A total of 106,945 m. units of electricity was generated during the month.

(Continued from page 17)

mute, infirm and the blind too wanted to have their say in the matter. Their efforts to reach the polling booth employing queer modes of transport were eloquent of the political sense of the people.

After a month of hectic propaganda by the political parties and independents contesting the elections, the atmosphere settled down peacefully on the polling day. The voters displayed remarkable restraint and business sense. The dignified behaviour of the candidates and their agents coupled with the vigilance of the authorities went a long way to ensure peaceful elections. The long and firm hand of law was ever held in readiness to deal with miscreants and trouble-makers but happily there were no occasions for the same.

India is the biggest democracy in the world with nearly 200 million voters a substantial majority of whom are illiterates. The act of giving the right of self-determination to an illiterate voter was viewed with grave misgivings even by those who had respect for democracy. The voters of India have firmly belied these apprehensions by going to the polls for the second time to elect the men and women of their choice in the most democratic way. Many a foreign visitor including Heads of States paid tributes to the orderly and dignified behaviour of voters during the elections.

About 38.4 per cent of the voters exercised their franchise in the polling held in Madras City on March 8 to elect 10 members to the State Assembly and 2 members to Lok Sabha, according to figures available with the Returning Officer. Out of 921,985 electors in the City, 354,453 cast their votes on that day in 1,078 polling stations spread over the various parts of the City.

(Continued from page 16)

institution and it is hoped that with his experience and knowledge in the craft, the institution will work successfully and produce best craftsmen in this trade. In addition to the training given in the institute, it is also proposed to take the students to various places to study the work of the ancient masters of this craft. The training will be of an advance kind, but different from the stereo-typed arts school and will try to incorporate something of the ancient Indian spirit that

laid stress not so much on mechanical perfection of outward form, but the eloquent expression of the inner reality. It is therefore proposed to give to the trainees a fairly intensive course in the main concepts of Indian Philosophy also in order that the Indian tradition and the true significance of the various God-forms, postures, mudras, symbols, etc.

The Sculpture Training Centre is established at an estimated cost of Rs. 26,600 non-recurring and Rs. 35,842 recurring per annum for a period of three years. The Government of India have sanctioned a grant of Rs. 44,442 to the State Government for this scheme.

Sanction is also accorded to the incurring of an expenditure of Rs. 46,500 to acquire land and buildings, for the payment of stipends and travelling allowance to trainees and buying raw materials, furniture and setting up a library of Literature on Sculpture.

(Continued from page 5)

acres of reserved forest area given by the Madras Government free of cost. Specific schemes of rehabilitation of displaced persons have been sanctioned; construction of quarters for officers, staff and workers is in progress; and a tentative general lay-out plan for the township and the industrial area has been drawn up.

The integrated lignite project will provide employment for about 10,000 people comprising skilled personnel of various grades and types, unskilled labour, trading and professional personnel serving the project township. The scheme for running a special technical and industrial school in the project which would train skilled personnel of certain types and grades for employment in the operation and maintenance of the various production units and the township is also under consideration.

Further experiments as to the best method of drilling development and screening of wells are proposed to be carried out as soon as the necessary equipment, for which orders have been placed, are received. Once the results of these tests are known the decision will be taken on the most economic pattern of wells to be adopted in actual mining operations. As stated already, early in 1960 is the scheduled time by which the lignite seam in the first cut is expected to be exposed and by the middle of that year the quantity required for the first unit of the thermal station will be mined.

Art Exhibition In The School Of Arts

By SRI K. N. RAMACHANDRAN.

The Art Exhibition of the outgoing students of the School of Arts and Crafts, Madras, is now on view at the School Hall. This is an interesting annual feature to all art lovers and in addition it helps to convey a picture of the activities and achievements of the school year by year. The current exhibition reveals that the school has been keeping up the high standard and variety for which it is well known.

There are over 250 exhibits including oils, water-colours, sculptures and drawings which provide a cross section of the best work turned out by the outgoing students of the institution during the last 12 months. A refreshing variety of style is very evident. These range from pure Western abstraction to downright photographic realism and cover between them all the and bear the stamp of the influence of national as well as Western art tradition and influence. One very noticeable and healthy feature is the absence of inane imitations of traditional 'Indian Art' which would surely be an anachronism now. But this attitude has not been extended sufficiently to the Western school also. There are some exhibits which show that some of the students still cling to the values of Western academic realism which in the countries of its origin is a dead force now. Similarly the abstract values of the Paris school have in some cases been reproduced *in toto*. This effort though they display the technical skill of the artist in arrangement yet leaves the onlooker dissatisfied and sometimes openly distrustful of the sincerity of artist. Exotic objects and values too may be 'catchy' and appear spuriously original, but it is not very laudable to trade on these. A more charitable view would be to treat such attempts as mere experiments. And it is hoped such artists would soon come back to a style that is truly contemporary: one that bears the stamp of national tradition and present day life influenced and modulated by the impact of the

Western values which also is reality of the Indian scene in all walks of life including that of Art. It is heartening to note that there are many students who have proceeded truly and well along this line.

Coming to the works of individual artists it is difficult in the space of a short article to dwell upon each. A few however deserve special mention as artists with distinct promise. The oil colour medium has attracted the majority of painters. The response to colour, so characteristic of Madras painters, is seen very well in the works in this medium. Impressionist and Fauve influences too are much in evidence. Sri P. Perumal with some good works to his credit steals the show. His 'Nungambakum Canal' is a brilliant bit of landscape which display good technique and bears a distinctly personal stamp and emotional appeal. The 'portrait of a peasant girl' is another notable work of this artist who shows very good promise. L. Seetharam's 'Landscape' with its hatchings of pleasing colours and sober strength of technique shows a maturity well ahead of his years in the art field. S. R. D. Prasad Rao's works with their pleasing simplicity, naivete and disarming air of ease have a charm all their own. T. Krishna Rao's 'Descending cart' is a simple direct statement expressed with vigour. P. G. K. Dutt has some excellent landscapes to his credit.

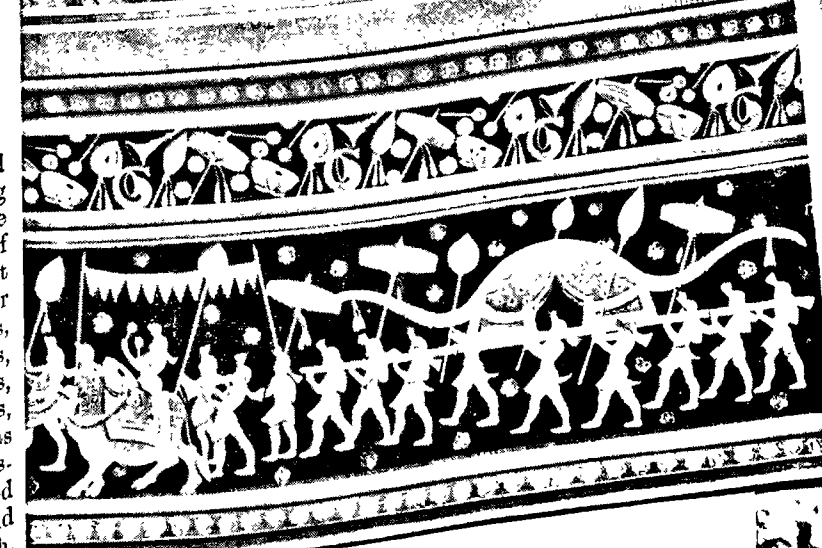
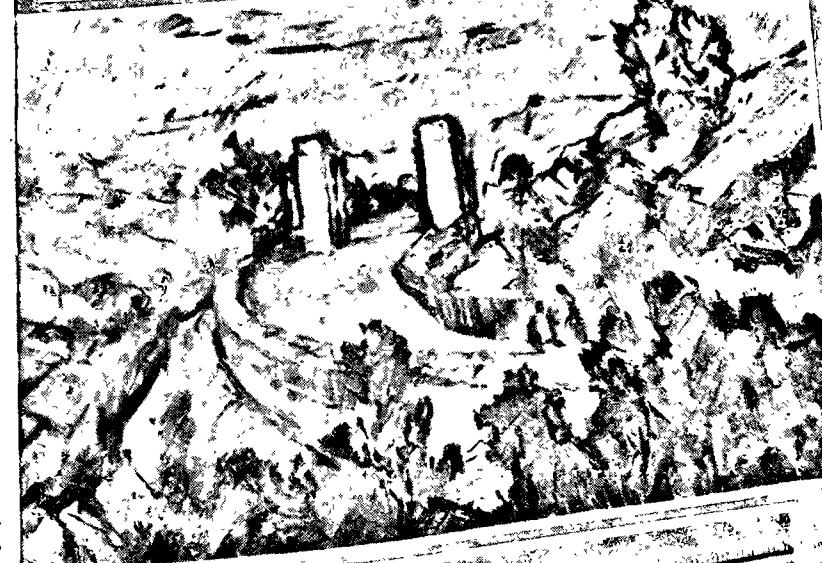
There are some good portraits in water colour, oils and charcoal. G. D. Somanath Rao is outstanding in this section with his powerfully executed heads in water colour which at the same time display a highly commendable delicacy of taste and skill. L. Shanmugasundaram and K. Shanmugasundaram show promise. A. K. Rama Varma has some good portrait sketches to his credit. P. Narayanan's portraiture is noteworthy for the stark dramatic content embodied. T. Krishna Rao has put up some good

Sri L. Munuswamy has exhibited some near abstract paintings which capture attention. Padmanabhan Pillay has exhibited, little, compact patterns in fresh water colour. A. S. Jagannathan's abstractions in pastels occupy the place of honour in the exhibition. Srinivasa Sarma has some excellent studies in pastels to his credit. These display considerable ease and elegance. His ink drawings are very interesting and breathe out a very interesting and distinctive individual. D. Satchidanandam displays a distinctive colour sense in his landscapes particularly. "Landscape" depicting an overbridge by George Livingstone with its monochrome effect shows the dramatic possibilities of an everyday subject.

There are some excellent works in the Commercial Arts Section with fine designs for Book Jackets, show cards, Tourist pamphlets, Textiles, etc. M. Pakkiri's textile design is very interesting. Moulana Jan, Purushothama Rao, Surendra and Ganesan reveal that they are very competent in this line.

Training Centres for Papier Mache Toys

The Government have sanctioned the establishment of two Training Centres, one at Cuddalore and the other at Tanjore for the training of 16 candidates in each centre in the art of making paper toys and papier mache articles like powder boxes, cigarette boxes, electric lamp stands, writing sets, finger bowls, toilet sets, flower vases, ash trays, wall lamps, with shade and many other items. as is done in Japan, Kashmir and Rajasthan. The training will be for a period of one year and each trainee will be paid a stipend of Rs. 25 per month. The Centres will be run departmentally for one year and then converted into industrial co-operatives. The entire expenditure on the schemes amounting to Rs. 40,660 is being met by the Government of India.



Portrait in charcoal

—Sri T. Krishna Rao.



Street in Madurai

—Sri M. Anandamurthy.



Left (top): Nungambakkam bridge —Sri P. Perumal

(centre): Landscape (road to Thirumalai) —Sri L. Seetha Ram.

(bottom): Textile Design. —Sri M. Pakkiri.

(Right): Descending Cart —Sri T. Krishna Rao.

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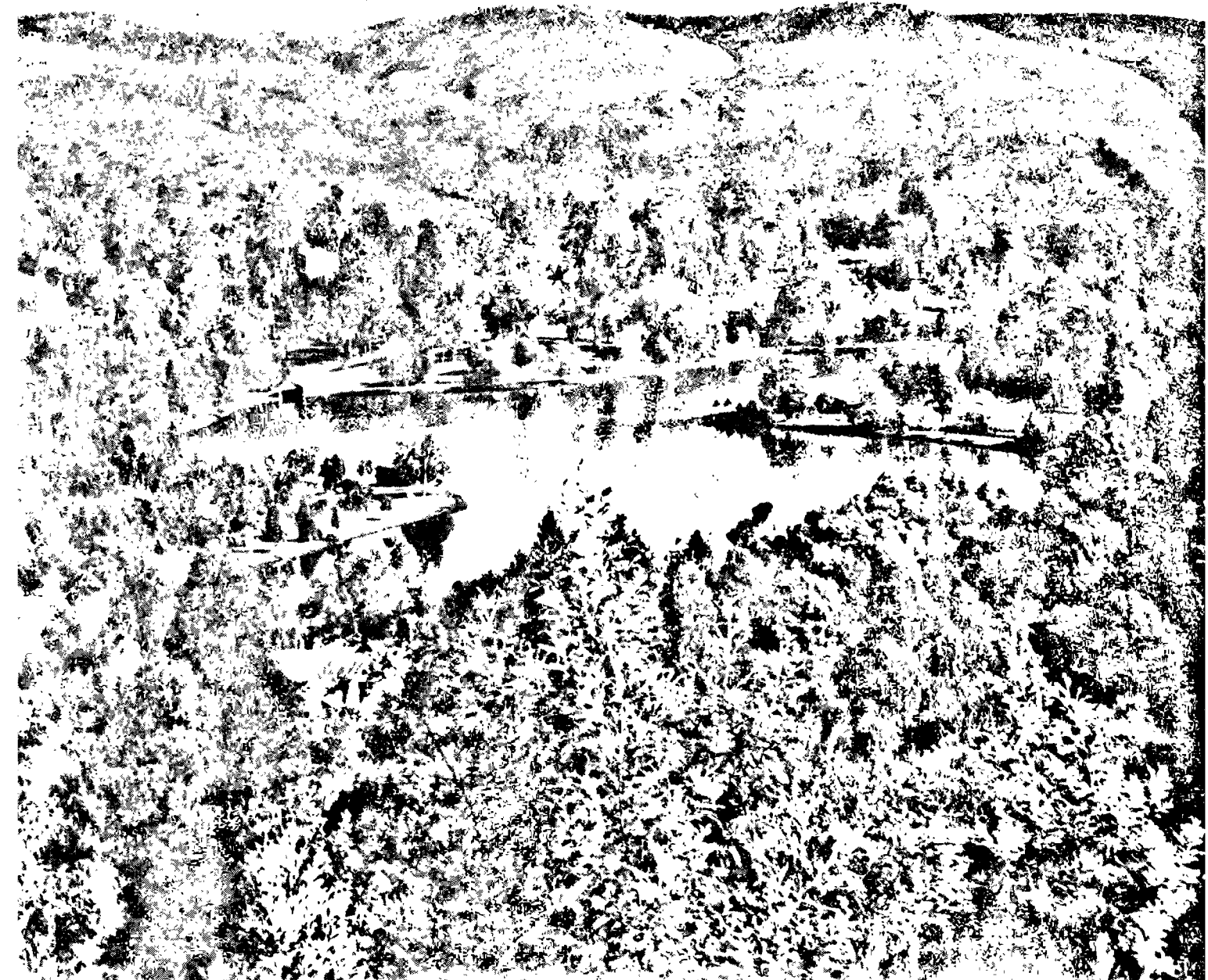
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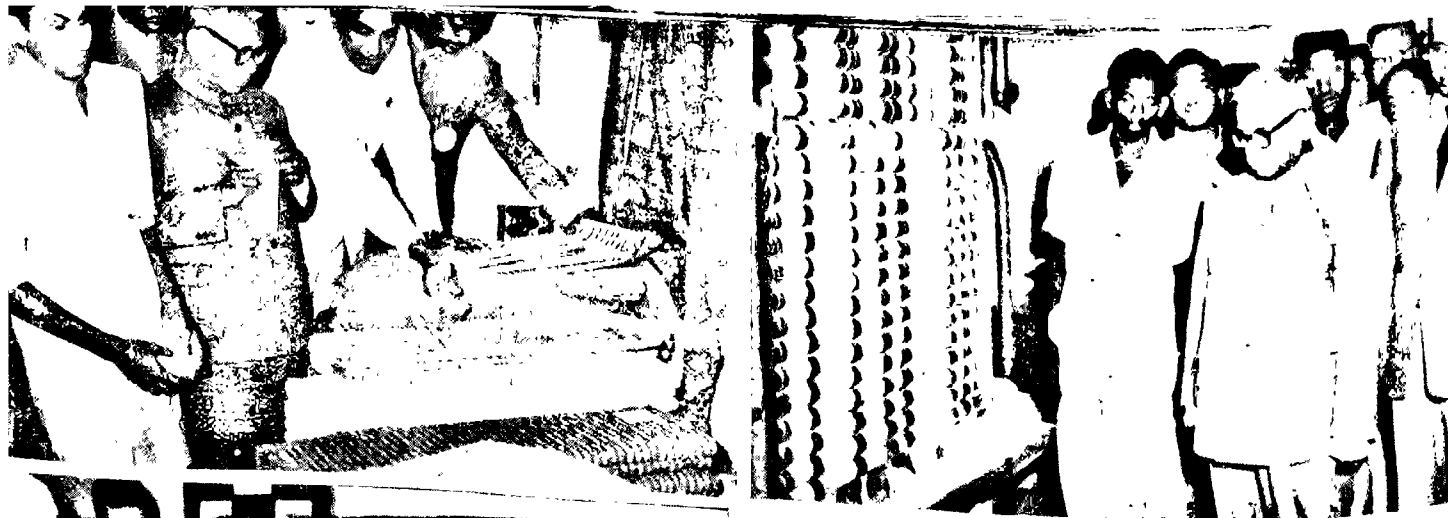


MAY 1957

Price 20 Naye paise

The thirst for knowledge produces intense looks. These villagers at a Community Projects Centre listen attentively to a Social Education Organiser. The news of the world perhaps is the subject.





Sri M. Bhaktavatsalam, Minister for Home, opened a Handicrafts and Cottage Industries Exhibition at Kodaikanal during the Inter-State Seminar on Community Development. In the left he is seen inspecting exhibits at Khadi and fruit stalls. Sri R. Parthasarathi, Director of Khadi and Sri M. G. Rajaram, Additional Development Commissioner are with the Minister.

Top.—Sri M. Bhaktavatsalam, during his visit to Kodai also switched on the pasteurisation plant of the Kodaikanal Milk Supply Union. Sri A. Palaniappa Mudaliar, Registrar of Co-operative Societies looks on.

The Sacred Hearts College at Shembaganur trains up Christian theologians. This College has a permanent exhibition of interesting specimens. In the extreme right is shown pre-historic burial urns preserved in the exhibition. These urns were discovered by a Christian Missionary on the slopes of Palani Hills.



Madras Information

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May 1957

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On the cover page: A picturesque view of Kodaikanal Lake and its surroundings. This Lake perhaps is responsible for Kodai to earn the reputation that it is one of the three best places in the world.
Fourth cover page: The historic temple of Lord Ranganatha at Gingee in South Arcot District.

Milk Co-operatives in the Second Five-Year Plan

By SRI A. PALANIAPPA MUDALIAR, M.A., I.A.S.,
Registrar of Co-operative Societies.

Milk is a protective food of great nutritive value, particularly for mothers and children. Protein malnutrition is widespread among children who get no milk. Such children suffer and die in large numbers for lack of protein. The per capita consumption of milk in India is much below the quantity consumed in many other parts of the world; the per capita consumption is only 5½ oz. in India as against 30 to 40 oz. in countries advanced in dairying. Within our own country, States like the East Punjab consume a much higher quantity of milk, than our own State where the per capita consumption is only about 2.4 oz. Nutrition experts have suggested the need for at least 8 oz. of milk per day in the average Indian diet. More milk has therefore to be consumed by our countrymen and if they should do so, we should produce more milk and make it available to our people at reasonable prices. The question is thus one of national importance.

More Milk Production.

The problem of increasing the consumption of milk is two fold viz., augment production and lowering the price to bring it within the income levels of the poorer sections of the population. Though this country maintains a huge cattle population, the production of milk is comparatively very low. The main problem confronting the dairy industry in this country is the low milk yielding capacity of our cattle and the shortage of cattle feed and fodder. Government have been taking steps to improve our breeds of cattle by establishing cattle farms, supplying approved types of breeding

bulls and starting artificial insemination centres. The key village scheme recently introduced is also designed to bring about improvement in the cattle wealth. Government are also bestowing increased attention on the better feeding of cattle by encouraging cultivation of fodder grass, supply of concentrates, etc.

The importance of Dairying as an agro-industry in India is two-fold. It provides a subsidiary occupation to the agriculturists who form the majority of the population living in rural areas. Secondly, it seeks to solve the problem of providing milk, an indispensable article of diet, to the rural and urban population. Any plan for National Development in India has therefore to give a prominent place for Dairy Development. The Second Five-Year Plan which aims at creating a socialist pattern of society and increasing the standard of living, particularly of the rural folk in India, therefore, includes schemes for Dairy Development.

Development Schemes in the Second Plan.—The Planning Commission has recognized the importance of the development of Dairying and Animal Husbandry and has included several schemes relating to milk supply and improvement of cattle wealth in the Second Five-Year Plan. In the co-operative Sector the following are the schemes proposed and they are expected to cost about Rs. 35.95 lakhs:—

- (1) Development of milk production in urban areas.
- (2) Installation of pasteurisation plants by six milk co-operatives.

(3) Provision of equipment to the Madras Co-operative Milk Supply Union for the hygienic handling of milk distributed in the City.

(4) Establishment of four co-operative salvage farms for dry cattle.

(5) Establishment of 11 co-operative societies for cattle breeding.

The first of these schemes is meant to increase the daily average production of milk by co-operatives from the existing level 39,200 Madras measures to 59,780 Madras measures at the end of the plan period by organising 138 new milk supply societies and providing State loans to the extent of Rs. 49 lakhs to members of co-operatives for purchase of milch animals. During the first year, 23 milk supply societies were formed against the target of 18 societies to be organized, loans were issued to the full extent of the targeted amount of Rs. 7 lakhs and the present daily average production of 43,177 Madras measures has exceeded the target of 43,000 Madras measures fixed for the year. During the current year 1957-58, 20 societies will be formed, loans to the extent of Rs. 9 lakhs will be issued and the daily production increased further to 48,000 Madras measures.

Under the second scheme, a pasteurisation plant will be put up by each of the six milk co-operatives at Kodaikanal, Madurai, Coimbatore, Madras, Trichy and Ootacamund. The total estimated cost of this scheme is Rs. 8.31 lakhs. The first year's programme has been implemented by the installation of a plant by the Kodaikanal Milk Supply Union at a cost of Rs. 32,000. The Minister for

Agriculture and Co-operation switched the machinery early this month. The public of Kodaikanal and the large number of visitors who go there for the season will now get pure pasteurised milk from the milk union. During the second year, the Madurai and Coimbatore Milk Supply Unions will each instal a pasteurisation plant.

The third scheme envisages the improvement of the hygiene of production and handling of milk by the Madras Co-operative Milk Supply Union in pursuance of the recommendation of the Dr. A. L. Mudaliar's Committee constituted by the Government of Madras. The scheme involves a capital expenditure of Rs. 5 lakhs and provides for the construction of 75 cattle sheds, the insulation of 10 milk vans, the installation of a can washing machinery, the erection of a bottle washing and filling machinery and the provision of 10 drop-in milk coolers. The scheme is awaiting the sanction of Government. Pending the sanction of the scheme, the Milk Supply Union has recently installed a milk cooler in Mylapore and this was inaugurated by the Finance Minister to the Government of India.

Under the fourth scheme, four salvage farms one in each of the districts of Tiruchirappalli, Coimbatore, Tirunelveli and Ramanathapuram are to be established. One farm has been established during 1956-57 at Thuvakudi in the Tiruchirappalli district in accordance with the target fixed under the scheme. This farm will provide facilities for the salvage of 100 cattle at a time. One more farm with a larger capacity will be established during the current year at Abishekapatti in the Tirunelveli district.

As regards the last scheme 11 cattle breeding societies are to be established during the plan period to up-grade the cattle by natural services. Both the cattle breeding societies to be formed during the year 1956-57 according to the targets fixed in this regard have been established one at Semmanangur in the South Arcot district and another at Appanaickenpalayam in the Coimbatore district. Each of these societies has been provided with three breeding bulls at a total cost of Rs. 6,000 besides a stock of medicines, etc., at a cost of Rs. 600. They have also been sanctioned a Senior Inspector each for supervision purposes. Two

more societies of this type will be formed in the current year in the Chingleput and North Arcot districts.

The implementation of these schemes will tend to improve the quality of our milch animals and increase the output of pure milk for supply to the public. Under the various programmes of development undertaken in the Second Five-Year Plan opportunities for employment will increase and the purchasing power of the people will also rise. The demand for milk will therefore go up. The efforts at producing more milk will have therefore to be continued if production should keep pace with the demand. Not only should the production be increased, but every endeavour should also be made to keep down the price level within the reach of as large a section of the public as possible. The co-operative is the best suited machinery to achieve this objective in a very large measure, because in its endeavour to augment milk production, it encourages the small farmers in rural parts to take to dairying as a subsidiary occupation without as much cost. Agriculture is regarded as a deficit economy and unless it is accompanied by subsidiary industries those engaged in it cannot pay their way. In the view of economists, our

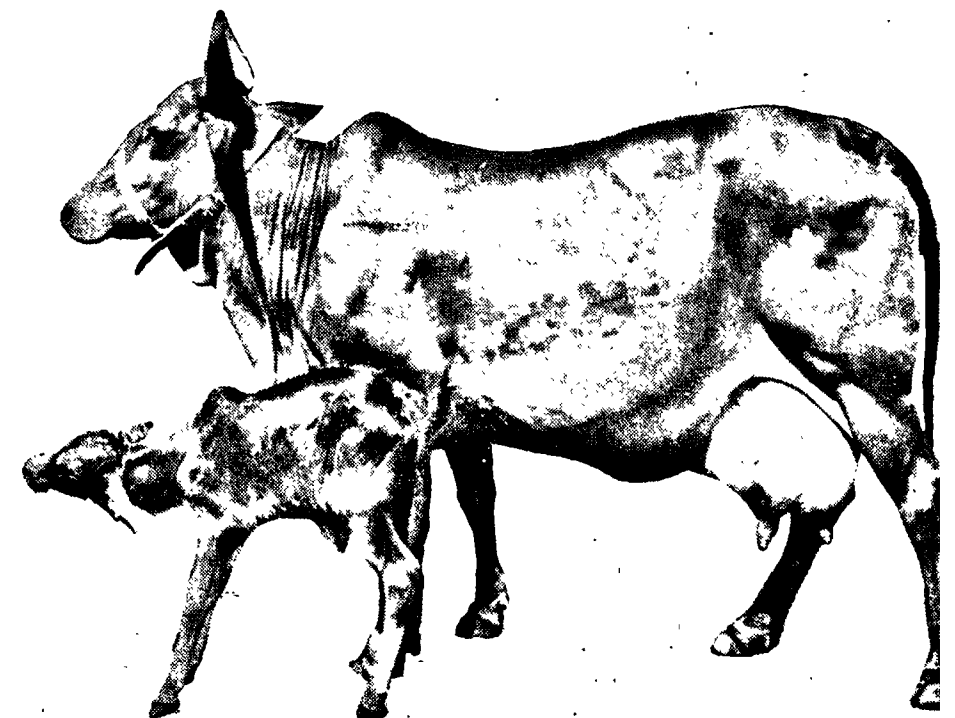
country needs mixed farming and the development of dairying as a subsidiary occupation among agriculturists answers this need to a large extent. The celebration of the more milk day annually and the other measures taken to popularise the consumption of more milk will apart from tending to increase consumption of this necessary article of food, better the economic condition of the agriculturists and thus bring about improvement in the rural economy.

Sale of Khadi

The total sales of Khadi produced by the Government of Madras through various agencies during February 1957 amounted to Rs. 2,87,958.

The sale was made through the City and mufassal depots, Government Central Godown and Block Development officers.

The Government have sanctioned the establishment of Wood Seasoning Plants at Madurai and Pollachi at an estimated cost of Rs. 1,30,000 (non-recurring) and Rs. 17,000 (recurring). The Government of India have sanctioned a loan of Rs. 97,500 representing 75 per cent of the non-recurring expenditure estimated to be incurred during 1956-57.





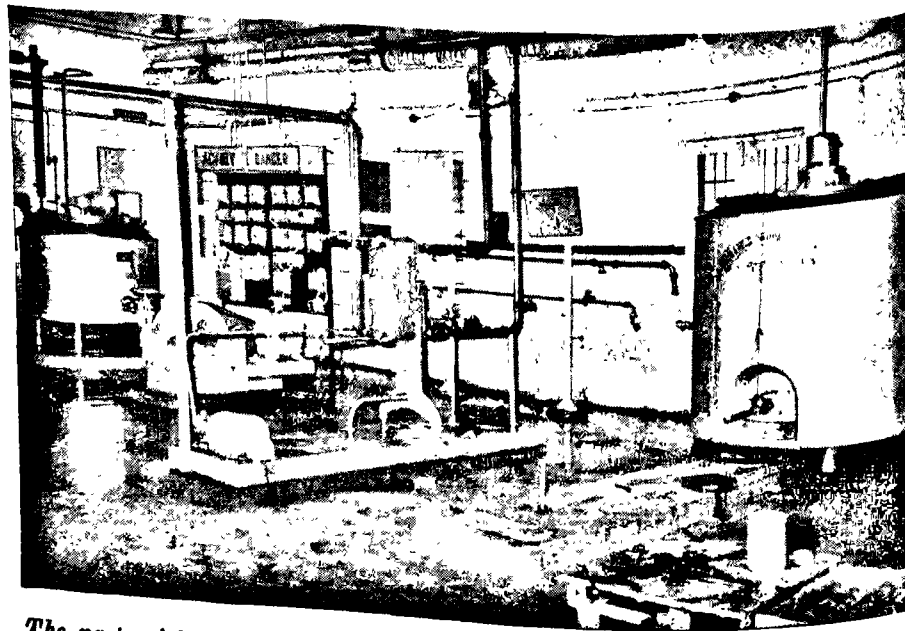
Where Toned Milk is Produced

What is toned milk? Why it is produced? How is it different from natural milk? These questions arise in one's mind as he goes round the Toned Milk Factory run by the Madras Government in the City.

The factory is situated in spacious grounds and the visitor will have an opportunity of acquainting himself with the various processes in the production of toned milk. There are the Laboratory where milk purchased from outside is tested, the pasteurization plant, the refrigeration plant and the bottling apparatus and a number of instructive sight for the visitor. Very many people think that toned milk is inferior in quality to natural milk and its nutrient properties are less than those of its natural counterpart. These assumptions as will be shown presently are not based on facts. Briefly stated, toned milk is prepared from buffalo's milk by the addition of skimmed milk in order to reduce the fat percentage to that of a cow's milk. Now in a tropical country like ours, what is wanted is not so much fat as proteins. And proteins is supplied by toned milk. It is equivalent in nutrient and biological value to cow's milk. Apart from these, toned milk is also safe from the bacteriological point of view on account of its freedom from the risk of infectious diseases because the milk is manufactured under carefully controlled conditions.

Now about the rationale of toned milk production. It is a common place that milk is an indispensable article of diet and a minimum consumption of 16 oz. or at least 8 oz. per day is necessary for each individual to keep his normal health. The present city is round about 2 oz. One of the reasons for the poor state of public health is the low consumption

of milk. This is partly due to poor production as well as the prohibitive cost of milk, which makes it difficult for the average man to purchase it regularly. The main difficulty of low production can be overcome by improving the quality of our cattle and thus increasing production. But this is a slow process. And the problem cannot wait. Statistics may be quoted here to elucidate the gravity of the



The pasteurising plant where the ingredients are subjected to 145° F before is suddenly cooled by mechanical refrigeration to 40° F.

matter. The present total consumption of fluid milk in the Madras City is about 230,000 Madras measures for a population of 16.5 lakhs. If the entire population is to get at least 8 oz. per head, the quantity of milk required will be round about 8.25 lakhs lb. The gap is wide indeed and special measures are called for. It is here the toned milk comes in. Of its ingredients, mention has been made already. The process of manufacture is done through modern machinery. The whole process is mechanised and the milk is untouched by hand from beginning to end. At the same time it is subjected to a process of pasteurization. This process eliminates all germs from the milk without at the same time affecting the vitamins.

In the early stages, the people had some prejudices against using toned milk, but since then, experience has disproved these misgivings and toned milk is becoming increasingly popular. On an average 6,000 lb. of milk is produced daily and distributed in an insulated van to the people through depots situated in the various parts of the City. Toned milk is exclusively used by the land, air and naval forces for the last more than ten years. It is very popular in the city of Bombay. All State hospitals in the City are using toned milk at present. The common man can have it for a very economic price.

A few details may be given in conclusion about the process of manufacturing toned milk. It is, as has been indicated, prepared from buffalo's milk by the addition of proper proportion of skimmed milk or powder and water, and then brought to the standard quality of fresh cow's milk in total solids. The process of manufacture consists in the mixing of ingredients in a pasteurizing vat, where the temperature is raised to 145° F, retaining at that temperature for half an hour and then suddenly cooling it by mechanical refrigeration to 40° F. Milk is thus rendered safe for human consumption being rid of all harmful and disease producing germs. Milk is then immediately filled in temperature-proof bottles and sent out in an insulated van. The use of insulated van is particularly significant because with its help, it is possible to deliver the milk to the consumer at a temperature very near 40° F, so that the consumer gets milk in exactly the same condition as the milk leaves the factory.

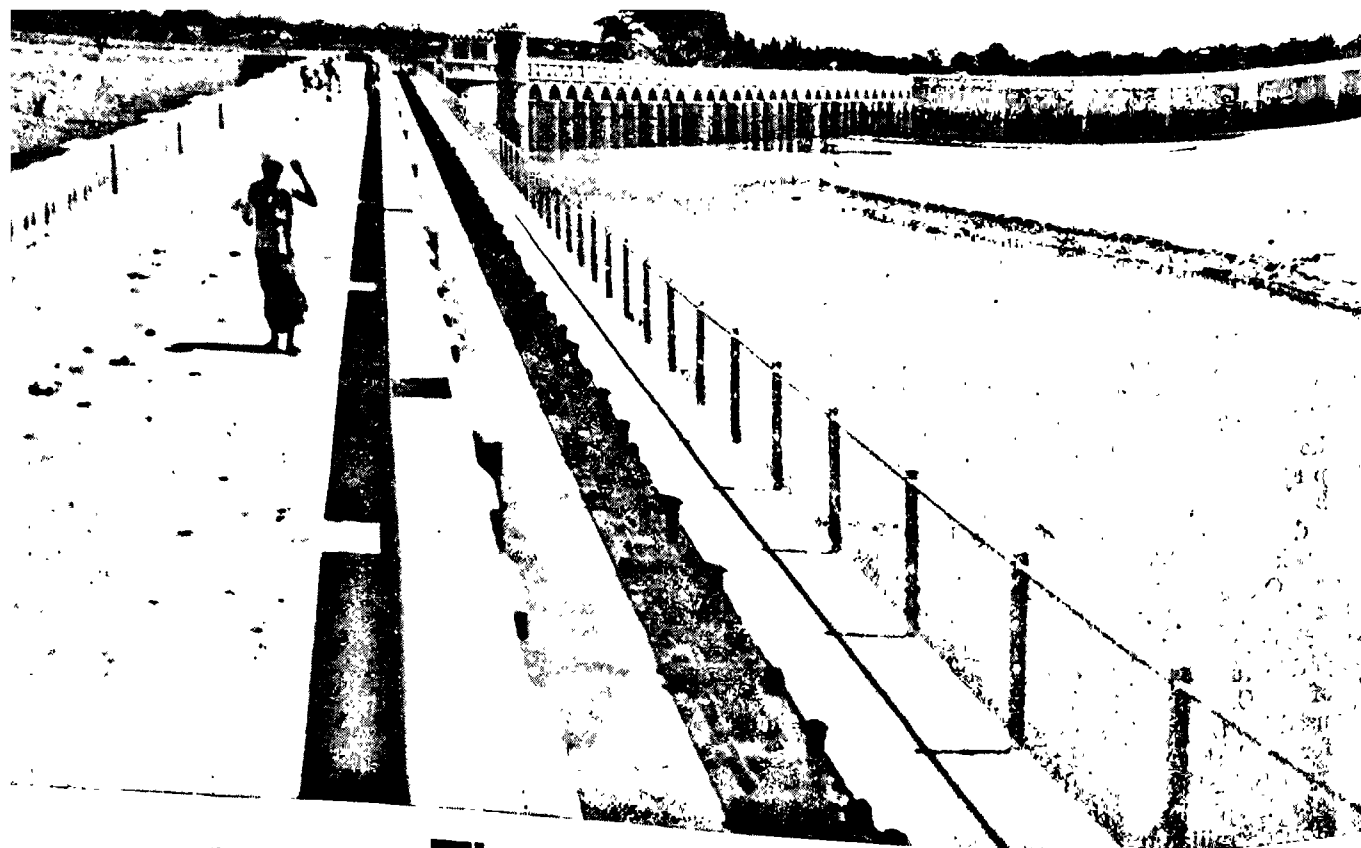
It is seen from these facts that the manufacture of toned milk is done under very rigorously controlled conditions and there is no possibility of any infectious germs getting into the milk. The importance of this fact will be better appreciated when it is remembered how in the case of natural milk, there is every possibility of infectious germs creeping into the milk in view of the insanitary conditions under which the milking is done. Both cows and buffaloes as everybody knows are milked in crowded streets and these animals are also housed in insanitary surroundings in close

proximity to dwelling houses. It is also usual for milkmen to take these animals from house to house for milking and sometimes milk is carried into the City on head-loads, cycles, buses and trains. As a result of these, there is every possibility of milk becoming contaminated without the knowledge of either milkman or the consumer. Toned milk on the other hand guarantees immunity to all these possibilities and this is a very fundamental fact from the point of view of public health.

—THOMAS K. GEORGE.



The milk is ready for despatch. The bottles are filled and corked by machine.



The Grand Anicut

By SRI U. ANANDA RAO, Chief Engineer for Irrigation.

The river Cauvery, the largest in South India, rises on the eastern slopes of the Western Ghats near Mercara. After running some miles in the former Coorg territory, it flows for a long distance over Mysore plateau. Near the junctions of Hemavathi and Lakshmanathirtha with Cauvery, Mysore Government have constructed the Krishnarajasagara Dam. After passing the Seringapatam island, the Cauvery reaches Sivasamudram where power is generated with the available fall of about 330 feet. About 30 miles below, the river enters the Madras State. In the limits of Salem and Coimbatore districts, the Mettur dam, the biggest at its time was constructed during 1925 to 1934 to safeguard the Cauvery irrigation and bring an area of 3 lakhs under the plough. Below Mettur Dam, the important tributaries are the

Bhavani and Amaravathi. A reservoir on the former has been completed and the one on the latter is under construction.

Cauvery and Coleroon.

About 100 miles below Mettur Dam, the Cauvery which is called here as Aganda Cauvery, bifurcates into two. The one, on the left, goes by the name of Coleroon, serving as a flood carrier and the other on the right is called Cauvery, the main source of supply to the delta. Incidentally, an island is formed at the place, called Srirangam Island at the centre of which stands the famous temples of Srirangam and Tiruvanaikkaval. The Upper Anicut was constructed at this site across Coleroon by Sir Arthur Cotton in 1836. Prior to the construction of the Upper Anicut, it was usual for the Collector

Built by Raja Karikala Chola eighteen centuries ago to harness the waters of Cauvery for irrigation, the Grand Anicut stands as a fitting tribute to the master builders of Tamilnad.

This engineering marvel, apart from being a dam, is attracting a large number of tourists and Engineers. To make the place more impressive, it was electrified and the lights were switched on, by Sri Kanwar Sain, Chairman, Central Water and Power Commission, on April 30, 1957. Gardens and parks are being laid out with fountains and statues at suitable places.



Sri M. Bhaktavatsalam, Minister for Home, inaugurated the Inter-State Seminar on Community Development at Kodaikanal in the first week of April. A dance recital by Kumari T. D. Kusala Kumari and Kavadi dance by



Sri Sundaram of Madurai were arranged in honour of the delegates. The students of American Missionary School provided choir music. Sri S. K. Dey, Union Minister of Community Development, addressed the closing session of the Seminar.



Medical and Public Health Programmes

Though employment orientation of village and small-scale industries was recognized by the Seminar, it was felt that even for the full realization of this purpose, such industries should be given protection as well as time till they are established on a sound basis. Sales tax and octroi exemption was also recommended in the case of several specific industries.

In implementation of decision of the Development Commissioners' Simla Conference, 26 cottage and small-scale industries pilot projects have been initiated and they will be multiplied on the basis of experience. For guiding and co-ordinating development pilot projects programme in each State, Action Committees have been set up at State level. For rapid sanction and implementation of these schemes, the Seminar felt that the decision of the Action Committees should be taken as final and binding on the Governments concerned.

Marketing problems were discussed in detail by the Seminar which felt that production should be absorbed to the fullest possible extent by the surrounding areas and disposal of surplus should be planned on All-India basis and where possible for export also. Need for standardization and increased publicity was emphasised. The establishment of mobile works sales emporia for both village and small-scale industries was recommended as also use of mobile vans for marketing. The Seminar felt there was little progress in organizing marketing societies and recommended their establishment. Credit also should be linked up with marketing when these societies started functioning.

Programmes of medical and public health and priorities for their implementation were discussed by the Fifth Inter-State Seminar on Community Development today. An important main recommendation of the Development Commissioners' Conference, Simla was that one primary health centre and three maternity sub-centres were essential for every Community Development and National Extension Block.

It was considered that, for effective functioning of these centres, suitable arrangements for provision of accommodation for the centres and health personnel should form the basic provision of the programme. As there exists no budgetary provision, the Seminar suggested that the Union Health Minister may be requested to allot adequate funds for these centres and staff quarters. As lack of transport facilities resulted in delay in implementing health measures, it was felt that one jeep should be provided for each Development Block for implementing the health programme. There was unanimity in recognising the urgency of population control and family planning though opinion was divided regarding the use of contraceptives. The ultimate target should be the establishment of family planning clinics both in rural and urban areas but a beginning may be made by using urban hospitals and village health centres and their staff for setting up clinics and starting service.

After discussing the minimum programme of environmental sanitation, it was felt that priorities should be given to safe water-supply, construction of sanitary latrines and urinals and soakage pits for disposal of household sullage water. Teams from each region could visit other regions for first hand experience of experiments in implementing this programme. During the discussion on training and personnel it was felt that there was no shortage of doctors though there was urgent necessity for more lady health visitors, midwives, nurses, etc. Full use of orientation training centres was recommended and it was felt that all categories of personnel should receive rural allowance for attracting them to rural areas. In view of the key role of village level workers, need for training them in the fundamentals of public health and environmental sanitation was emphasised but it was felt that their work load was becoming very heavy and steps should be taken to make it more manageable. Establishment of health committees, where Gram Panchayats exist was recommended.

ded, though a section was of the opinion that such committees need be set up only at block level immediately. Integration of Medical and Public Health Departments and common orientation of both types of programmes were also felt desirable. Inter-State Seminars were recommended as useful for discussing these problems and for further planning.

Social Education and Village Women

Recommendations for a more effective programme of Social Education among village women were made by the Fifth Inter-State Seminar on Community Development. The minimum programme for Social Education suggested by the Simla Conference of Development Commissioners include literacy, household skills, common medicines, etc., and envisage using occasions like bhajan mandals and religious fairs for social education programmes. The Seminar felt that, if social programme had to be effective among women, it had to be supplemented by economic programmes as well as by health activities, especially child welfare activities.

Economic programmes should be capable of augmenting family income and should be introduced after careful study of marketing possibilities. Ambar Charka was considered especially useful among such programmes. Funds for these purposes should be earmarked either from the Village Industries Board or Community Development or National Extension Service budget, and there should be close co-ordination between these Boards and Community Development Organization in planning effective economic programmes. With the increase in income, there should be some possibility of introducing the Small Savings Campaign amongst village women. It was suggested that chit fund and similar systems already in vogue might be improved and procedural formalities for opening Postal Savings account should be simplified.

The Seminar emphasised the need for closer co-operation between grama sevikas, women village teachers, midwives or lady health visitors and Women Social Education Organizers for effective implementation of social education programmes. The number of grama sevikas should be raised and a definite programme of work should be given to them.

Tamil Fiction To-day:

A Blend of Realism and Ethical Idealism

By SRI T. P. MEENAKSHISUNDARAM,
Professor of Tamil, Presidency College, Madras.

attempted with great success, gaining thus the necessary training ground and indispensable inspiration.

In the first quarter of this century, there was a great danger when the works of G. W. M. Reynolds and French sex novels came to be translated. Even Marai Malai Adigal came under this influence, but as usual great genius escapes the danger to make a new contribution—Kumudhavalli or Naganattaras. There still continues the production of horror stories, unfortunately often intended for children.

But this is nothing peculiar to Tamil Nad, India or East. One other interesting fact is this though translations are everyday made from distant languages, no translations came from the nearer Dravidian languages to any appreciable extent.

But the novel and the short story have escaped these ever-persisting dangers, and to-day they are a mighty force in Tamil for good. V.V.S. Iyer and Rajaji took to short story writing now and then, to give a living form to their ideals. That shows its strength and validity if not their success. The historical novels of Kalki familiarising even the man-in-the-street with the glories of the Pallava and Chola age are no mean contributions. Perhaps, their frightening bulk, due to their having been written as weekly serials, may not appeal except to those whose lives are a long-drawn leisure of afternoons.

There are people who had studied Western fiction and its theories, and who, therefore, apply them to their writing in Tamil like the late lamented "Pudhumai Pittan" and some others who are still living. Some of them turn into critics, naturally very pessimistic, about the future of Tamil fiction. Criticism cannot but be comparative, but one must find the principles of criticism in Tamil fiction itself, because it is something with its own

Tamil fiction, as referring to the modern novels and short stories thanks to the Western contact, was born and has grown into its present status all within the last seventy years or so.

The first novel, "Pratapa Mudaliar Charitram" was an original contribution by a poet occupying an important place in the judiciary, written in an easy flowing style of the day. At the end of the last century came another novel marking the next landmark from the pen of a young vedantin developing additional dimensions of literary beauty and philosophical significance. Madhavayya's "Padmavathi Charitram" brought the novel form true to the twentieth century.

Bharathi's "Chandrikayin Kathai", though incomplete, as a beautiful fantasy, is a next landmark. The novel has thus assumed and developed its own Indian and Tamilian character—illustrating the old idea of literature as something ennobling and delightful like the talks of the spiritually great, and the underlying ethical idealism without losing contact with the work-a-day world.

The first great task was to reshape the language and its idiom, to find the rhythm of the spoken tongue, to realise the poetic beauties of the colloquial speech and with the help of this inspiration to write in the new language of the New Fiction in a natural vein. This is the age of reason and common sense, prose and speech and its potentialities and possibilities. The experiment is still going on, and one has to admire and revere the new heights reached, the unknown depths plunged and the ever-widening horizon familiarised through this language in the novel and to a greater extent in short stories.

As for the choice of the stories, as already mentioned, first came the native soil. But later on, translations from the Western novels and fictions of other languages of India were

native colour and flavour, as shown by the very first Tamil novel Pudhumai Pittan's Short stories are beautiful poems if one may say so. Sometimes he writes the old puranic stories always concentrating on one and inspiring us to see its inner depth and glory, beauty and significance, with all his frantic efforts at shaping the language to his purpose.

Epic has no hope of blossoming in the age and novel has taken its place and short story takes the place of shorter poems.

Women are contributing their mite by giving us a view of modern domestic life which we would greatly miss but for their advent. People in various walks of life, as it were, from various corners of vantage, tell us with their mysterious pen-names how they see this varied life of new India. Propaganda is inevitable when everyone is anxious to see a better India grow, but sometimes the art of fiction is made to appear as the slave girl of Propaganda rather than as the Queen of Literature. There is a word "Marumalarchi" used by the modern authors to characterise themselves.

Apart from novels revealing the conflicts of sex and love, there are social novels and short stories. There are novels describing the freedom struggle of which there are not many in other modern languages. There are detective novels and those of psychological nature. There are novels about the villages slowly awakening to life; novels concentrating on a locality, therefore, full of local colour; novels depicting the life of Tamilians outside Tamil land, and novels depicting an age like the one covering the whole period of Gandhian movement in "Alai Osai". All are interesting in one way or the other, being original contributions of Tamil land. Names of authors form a worthy legion, the techniques are varied. Tamil may be proud of this contribution.

Inspiring Record of Achievements

Targets Exceeded in Irrigation and Electricity

The plan of the composite Madras State originally envisaged a total expenditure of about Rs. 141 crores, but after the formation of the Andhra State from the 1st October 1953, the revised Plan provided for an expenditure of about Rs. 84 crores over the Five Year Period. This provision was subsequently increased to Rs. 86.42

crores consequent on the inclusion of new rural electrification schemes and certain other minor adjustments.

The actual provision made in the Madras Plan and the progress of expenditure on schemes included in Plan by major heads of development.

In addition to the above items, there was an expenditure of about Rs. 7.60 crores on C.D., N.E.S. and L.D. works programmes. It may thus be seen that taking the plan as a whole, there was no appreciable shortfall in expenditure. The targets set in the Plan were exceeded in the case of irrigation and electricity schemes and more or less in full, in the case of the other items.

The notable achievements under the different fields of activity were as follows :—

Irrigation.

Work on the Lower Bhavani Project, Mettur Canals and Malampuzha (since transferred to Kerala) was almost complete and water had been let out for irrigation. The other major projects, like Araniar, Manimuthar, Krishnagiri, etc., were either in an advanced stage of completion or were making satisfactory progress in execution. About 2.35 lakhs acres were brought under irrigation by the end of 1955-56, against the target of 2.43 lakhs acres.

In addition to the above major irrigation works, about 2,500 small irrigation works were completed benefiting a total extent of 4.60 lakhs acres (existing area 4.28 lakhs acres and new area 32,000 acres).

Power.

The Moyar Hydro-Electric Scheme, the Papanasam II stage Extensions, the Pykara III Stage Extensions and the Madras Plant (Thermal) I and II Stage Extensions schemes were completed giving 111,000 K.W. of additional installed generating capacity. An agreement was reached with the Travancore-Cochin State for the utilization of Periyar waters for generation of electricity and work on the Periyar Hydro-Electric Scheme was commenced towards the end of 1954. This was by far the biggest scheme of its kind, so far undertaken by this State and it

Heads of Developments.					Plan provision for 1951-56.	Expenditure during 1951-56.*
(1)					(2)	(3)
					IN LAKHS OF RUPEES.	IN LAKHS OF RUPEES.
I. 1. Agriculture Rural Development ..					902.19	857.27
2. Animal Husbandry					56.28	43.43
Dairying and Milk Supply					12.95	15.39
3. Forests					74.39	29.10
4. Co-operation					17.18	11.00
5. Fisheries					49.07	35.36
6. Rural Welfare Scheme					29.95	76.61
					1,142.01	1,068.16
II. Irrigation					2,018.50	2,086.00
Power					3,086.00	3,067.81
					5,104.50	5,153.81
III. Industry—						
Cottage Industries					44.44	52.19
Other Industries					128.13	112.68
					172.57	164.87
IV. Highways						
V. Social Services—					357.76	297.41
1. Education					493.86	406.04
2. Medical					247.80	247.58
3. Public Health					518.51	498.86
4. Housing					189.61	151.95
5. Amelioration of Backward Classes					415.73	449.13
Total					1,865.51	1,753.56
Grand Total					8,642.35	8,437.81

* Represents actuals for 1951-52 to 1954-55 and Revised Estimate for 1955-56.



Mr. Ellsworth Bunker, Ambassador for the United States in India, and his wife were entertained to tea on behalf of the Government of Madras on 10th April 1957. The picture shows Chief Minister Sri K. Kamaraj, Mrs. Bunker, Governor Sri A. J. John, Finance Minister Sri C. Subramaniam, Mr. Bunker and Srimathi A. J. John.

expected to be completed by 1958-9, providing an additional generating capacity of 105,000 K.W.

Madras leads all other States in India in rural electrification. By the end of 1955-56, electricity was extended to nearly 3,500 villages and small towns and connections were given to about 30,400 agricultural pumpsets.

Agriculture.

Agriculture being the mainstay of the bulk of the population of the country, special emphasis was laid on increasing agricultural production. All the intensive cultivation schemes which were then under execution were enlarged in scope and continued under the First Five-Year Plan. These schemes provided for use of improved strains of seeds, application of green manures and chemical fertilizers

on a larger scale, besides extension of irrigation facilities and bringing new areas under the plough by tractor reclamation. Fourteen thousand and four hundred tons of improved paddy seeds were distributed during 1955-56. About 93,900 tons of ammonium sulphate were distributed in 1955-56. And this is nearly double the quantity supplied in 1950-51. An area of 196,000 acres was covered by the Departmental tractors during the Five-Year Period and soil conservation work was completed in a total area of 15,800 acres. Plant protection work was undertaken vigorously and the total estimated savings of foodgrains as a result of the treatment of pests and diseases of crops was 7.5 lakhs of tons during the Five-Year Period.

The production of cotton increased from 1.95 lakhs bales on 1950-51 to

3 lakhs bales in 1955-56 due to the new areas brought under cotton cultivation under the Lower Bhavani Project and the improved practices adopted by the ryots.

As a result of the various measures enumerated above, this State has largely attained a state of self-sufficiency in regard to principal foodgrains.

Attention was paid to the development of vegetables and fruits. The Seed Depot at Madras and the Agricultural staff attached to it continued to do very useful work by way of development of Kitchen gardens in the City and its extensions.

The number of institutions for treatment of cattle diseases increased and rinderpest was brought under effective control. Fifteen artificial

Five Polytechnics opened on Regional Basis

insemination centres had been established with 60 key villages attached to them and artificial insemination as a means of improving the quality of livestock became more and more popular. The Madras Milk Supply Union and other Urban Milk Societies were catering to the needs of the urban population with a daily production of about 30,000 measures of milk.

Under Fisheries, 14.32 crores of fingerlings were collected and stocked in inland waters as against a target of 19 crores for the Five-Year Period. Useful work was done by way of improvement of indigenous craft and tackle and popularizing the adoption of mechanised fishing.

A number of afforestation schemes were taken up in the reserved forests and 26,700 acres were planted with fuel species, 2,300 acres with softwood and 4,000 acres with wattle and blue-gum. An area of 1,700 acres was planted up with casuarina.

Systematic soil conservation work was taken up in the low hill areas and the area tackled during the Plan period was 2,900 acres.

Industries.

Five Polytechnics were opened on regional basis for providing training in a number of certificate and diploma courses and arrangements for imparting advanced instruction in leather-tanning and leather goods manufacture were made in the reorganized institute of leather technology. A chemical testing and analytical laboratory was established for analysing minerals and other raw-materials available in the State. A calendaring plant was installed at Erode to give better finish to handloom cloth. Substantial progress was made under the Khadi development scheme which provided for the employment of 54,000 spinners and 2,100 weavers. The target of 45 lakhs yards for the five-year period had been exceeded and the actual production of khadi in 1955-56 was 16.36 lakhs yards. The scheme for the development of Palmgur industry by organizing Co-operative Societies for the benefit of the ex-tappers and giving them training in improved methods of jaggery production is working well. The production of palmgur was generally in accordance with the target, the actual

production in 1955-56 being 26.93 lakhs maunds.

Highways.

One thousand five hundred miles of new roads had been formed mostly for giving connection to villages, besides effecting various improvements to existing roads. Excluding works on National Highways about 200 major bridges and 280 minor bridges were completed. Besides this, about 21 major items of bridges and road works were under execution from the Government of India grant for roads of inter-State and economic importance.

Education.

The enrolment in elementary schools increased from 25 lakhs in 1950-51 to 29.5 lakhs in 1955-56. About 2,375 basic schools were opened including the Elementary Schools converted into basic schools and the enrolment of children increased from 30,000 to nearly 2½ lakhs. There was also a great expansion in the field of Secondary and University Education during the period.

Health.

Improvements to the General Hospital, Madras and certain District and Taluk Headquarters Hospitals were carried out, providing for an overall additional bed strength of 1,339. The Madurai Medical College was opened and it provides for an admission of 65 students, which would be increased to 100 on the completion of the entire scheme. The number of admissions to the Stanley Medical College was increased from 72 to 100 by effecting necessary improvements and constructing new buildings. Tuberculosis clinics were opened in some District Headquarters Hospitals and 3 Leprosy centres and 4 Leprosy clinics were also established.

Good work was done for controlling malaria. Malaria had almost disappeared from all the districts except Salem, the southern portion of which was taken up for control work. Attention was also paid to nutrition research and health propaganda and publicity. About 9,300 drinking water-wells were provided under the Rural Water-supply Scheme, in addition to a number of wells sunk for the benefit of Harijans. Seven Urban Water-Supply Schemes

and one drainage scheme were completed during the period and 27 schemes under progress. Besides the above, water-supply and drainage schemes costing about Rs. 140 lakhs were in various stages of progress in the Madras City.

The Urban Housing Scheme was working well. There were 175 Urban Housing Societies which constructed 3,300 houses against a target of 2,500 and 650 houses were in various stages of construction. 936 houses were under construction in the colonies at Erukencheri and Sembiam in the Madras City for the benefit of the industrial workers, at the end of the First Plan period.

Efforts for the uplift of the Backward Classes comprising Scheduled Castes, Scheduled Tribes, Ex-criminal tribes and other backward communities were intensified. There are now 917 Harijan Welfare Schools providing elementary education to about 85,000 Harijan children. A sum of Rs. 30.9 lakhs was spent in 1955-56 towards boarding grants and supply of midday meals and maintenance of Government Hostels for the Harijan Children. During the plan period, about 90,000 Harijan students were given scholarships, house-sites were assigned to about 13,500 Harijan families and about 700 drinking water wells were either constructed or repaired for the benefit of the Harijans.

About 20,000 scholarships and 1,900 boarding grants were given to the students belonging to "Other Backward Classes" during the Plan period.

Community Development Programme.

The programme was in operation in 4 community Projects, 24 community Development Blocks and 38 N.E.S. Blocks at the end of 1955-56 covering a population of 88 lakhs against the total rural population of 290 lakhs in the State. Large contributions were made by the villagers for such works as roads, school buildings, wells, dispensaries, playgrounds, etc., under the programme. Village Panchayats came forward in large numbers to take part in the development activities by undertaking construction works under the programme. The total contributions made upto the end of 1955-56 was of the order of Rs. 122 lakhs.

Bee-keeping in the National Economy

By SRI H. VISWANATHAN, Bee-Keeping Development Officer, Madras.

The basis for India's national prosperity is her agricultural economy since 75 per cent of her population lives in villages with agriculture as the main occupation. It is common knowledge that by agriculture alone the ryots can hardly make both ends meet. Poor yields, high cost of production, and other factors which cause economic depressions from time to time worry them. In such precarious conditions, anything that tends to increase the yield of crops and promises to improve their lot should be welcome to them.

The honey bee is said to be the best little friend of man assisting him tremendously in his food production undertakings. In addition to producing honey, a sweet and valuable food, it aids farming by rendering effective pollination service without which seed-setting of many a fruit tree, fodder crops, etc., would be impossible resulting in the poor yield of crops. The secret of success in farming lies in the recognition of the great significance attached to bee life for increased food production and thus, it behoves all the more that farmers should bestow greater attention to the care of the bees and the conservation of their life in their own interest and in the nation's interest. Bee-keeping in many civilized countries is considered as a branch of national service as it aids to improve the health and prosperity of nations. Let us note what Sir C. V. Raman, Nobel Laureate and a great Scientist, has said about Bee-keeping. He said "Bee-keeping is a matter of the highest importance for the health and economic welfare of India". It merits our immediate and scrupulous attention. Again, other scientists have also brought to our knowledge that bees help the garden, the garden in turn helps the bees and man reaps the harvest of both and it is up to us to fully exploit them.

Better farming does not stop with better soil management and more efficient harvesting tools employed. These alone will not result in the

maximum yield unless the flowers produced in the fields are visited by bees and pollination effected. Thus pollination becomes the key to our agricultural economy. Authorities estimate that more than 80 per cent of the pollination task required for the set of fruits and seed crop is accomplished by the honey bees. Planned pollination can well become one of the most beneficial, profitable, and popular agricultural practices in our future farm programmes. For successful pollination service of the various crops, it may be necessary to have one to three strong colonies of bees for every acre of crops in bloom. It may be well imagined as to how many bee colonies would be necessary for the country-wide pollination service of the different crops.

Bees as pollinators.

How and why the honey bees are considered as most effective pollinators? Because of their food habits and habit of remaining constant to a single floral source once they start work on a plant for nectar or pollen and also because they busy themselves in pollination much earlier than any other flower-loving insects during the blossoming period and are invariably the last to leave the field at the close of the period, they are considered to be the best suited for the purpose. They dominate the fields and it may appear that they have a monopoly for themselves. The bees cannot be effectively replaced by other insects or by any mechanical devices to perform the vital task of pollination on an extensive scale. So also for producing natural honey, they are indispensable and cannot be replaced. For every rupee the bee produces in the form of honey, it helps the gardener to harvest 10 to 15 rupees worth of extra fruits.

For a country of the size and agricultural importance of India, it would be difficult to estimate in money value the advantage which will be derived by an extension of bee-keeping in the rural areas. Apart from the fact that it can provide employment to hundreds

and thousands of persons in the country, it can cause to increase the output of crops which alone should be treated as a great gain to the country. Besides there can be the harvest of honey worth several crores of rupees and bees-wax, another bee product which is in great demand for its commercial use in the manufacture of good quality wood and leather polish, high class canoles, soaps, medicated ointments, water-proof materials, etc. For the production of honey, there is no need for any extra acre of land to be tilled, nor is there any need to displace any of the present crops. The bees are there to manage to produce honey even from the wild growths. Only they need proper shelters and good care, and that can be answered by taking to Scientific and Systematic Bee-Keeping.

Subsidiary to Agriculture.

Bee-keeping for profit or pleasure has many sided advantages. It is a clean and fascinating as well as health giving open air occupation fit for both sexes requiring huge outlay or space, negligible running expenses, involving no daily attention nor any huge machineries from outside. It is essentially a Cottage Industry, subsidiary to agriculture, based on decentralized system. It is free from caste prejudices and political implications. Honey and bees-wax, the chief products of the industry, have great and universal demand and have keeping qualities. Other products such as bee Venon, royal jelly pollen pellets and propolis (a vegetable gum collected by bees and used in the construction of their cells for cementing and polishing) are gaining importance for their medicinal properties and the demand for their supply is also on the increase. To keep bees one need not even possess a garden, for the bees have their wings and have a flight range of half to one mile radius and they will gather their needs from the flowers raised in other's gardens around; and return to their own hives because of their high homing instinct. This can be taken advantage of by a poor cottage dweller who may employ them, to augment his income.

No one would object to his keeping bees for he will be doing only a beneficent deed to his neighbours as by the visits of his bees others will have greater yield of crops. A bee-keeper is recognized as a public benefactor. Again more precious than all these are the valuable lessons in the Science of Social Life one may learn from the bees and their way of life. To observe them inside the hive, on their wings and on flowers is like turning the leaves of the Book of Knowledge. There is wide scope for research.

The life of the bee is a tale of a Strange Republic or a Community of individual lives dedicated to a common cause, with all the toil and at times, ruthless sacrifice that such a cause entails. The bees are praised for their diligence, industry, restraint, thrift, co-operation, self-sacrifice, etc., the qualities of which are indispensable to the well being of a society. The educational aspect of the industry should not be lost sight of when education through craft is stressed under Basic Education System. Through bee-keeping, lessons on Botany, Biology, Mathematics, Engineering, Chemistry, Social Studies, etc., can be imparted as the life of the bee is linked with everything in the Universe and its rhythmic movements.

Bee-keeping to be successful and profitable must be well done. It demands watchfulness, intelligent and hard work and good equipments, standard and uniform. As in any other branch of industry, carelessness, neglect lack of knowledge and application and poor materials to work with are as certain to bring about failure in Apiculture. The profit derived from the bees depends on the locality, weather conditions, the strain of bees, the presence or absence of their enemies and the skill of the bee-keeper in manipulations according to seasonal requirements.

The bees thrive best in rich forest clad slopes and agricultural districts, preferably well wooded with heavy nectar and pollen yielding trees and plants. The suitability of a site for the establishment of an apiary is ascertained by the presence of a large number of natural colonies of bees as well as abundance of bee pasture plants found within a radius of about half to one mile. For surplus honey, the site and its surroundings must be dominated by a

few species of plants and trees that come to flowering in rotation. There should be a wide range of flowering of the same kind of plant at close proximity, to obtain maximum quantity of honey from bee hives. In India, swarms of bees of various kinds, from the largest to the tiniest in the world, from the most stinging and dreadful to the stingless and harmless, abound in the regions of the ever blooming valleys of the mighty Himalayas, the Western Ghats and the Vindya Mountain Ranges. They are also traced along the river belts of the Ganges, the Brahmaputra, the Mahanadhi, the

Godavari, the Krishna, the Cauvery, the Nerbada, the Tapti and other numerous streams.

Bee-keeping would be profitable at sites that lie between the altitude of 2,000 feet and 6,000 feet above mean sea level and also in plains along the river belts, fruitgrowing areas and where irrigated cotton is extensively grown. On the hills, an average yield ranging from 20 to 30 pounds of honey per hive per year and in the plains 5 to 10 pounds per hive per year may be expected depending on conditions

(Continued on page 27)



THE STATE CATTLE SHOW

A State Cattle Show was held under the auspices of the Animal Husbandry Department at the Teynampet Congress Grounds in the last week of March.

The show proved to be a great success in driving home the importance of improving the cattle wealth of the State. Sri M. A. Manickavelu, Minister for Revenue, inaugurated the Show and Sri A. J. John, Governor, presided over the function organised for the distribution of prizes. Srimathi John distributed prizes.

The picture shows some of the best specimens exhibited at the Show. Top left: The sacred cow Gir which is associated with Lord Krishna. Top right and bottom left: The Kangayam and cow bull from Palayakottai Pattagar Farm. Bottom right: The Australian Sheep from Hosur Livestock Farm.



1954-55, at the Livestock Research Station, Hosur. Originally 50 students were admitted, but in 1955-56 the number was doubled and 100 were admitted. As even this number was considered to be inadequate to meet the needs of the State and in carrying out the allotted task in the second plan two additional centres were opened this year, one at Pudukkottai and the other at Orathanad, Tanjore district each with 50 students. Thus in all 200 students are undergoing training for this course.

Flaying Course.

To minimise the great loss caused to the Leather Industry in this State on account of the faulty flaying and also to produce quality hide and skins for both the industry and the export trade, better and scientific methods of flaying had to be adopted. A flaying school was started in this college in the year 1953 to train professional flayers. Sixty Professional flayers, both butchers and new recruits and 12 Veterinary Assistant Surgeons selected for the Refresher course are being trained each year. This course is spread over a period of 3 months and these seeking admission should be over 18 years of age and should be able to read and write one of the regional language. A stipend of Rs. 10 is paid to each licensed butcher undergoing training and Rs. 25 each to the new recruit. Successful candidates are awarded certificates. Two auxiliary centres are run in other centres of the State as well.

Post-Graduate Course in Veterinary Parasitology.

Realising the importance of control of parasitic diseases in successful Animal Husbandry, a post Graduate course in Veterinary Parasitology was instituted in this College in the year 1955-56, with a grant-in-aid of the Indian Council of Agricultural Research. This is of 9 months' duration and trains Veterinary Assistant Surgeons from the different States of India in the control of parasitic diseases. Six students completed the course last year and five are undergoing this year.

Teaching Staff of the Madras Veterinary College.

The teaching staff at present consists of 11 professors, including the Principal, five Lecturers, 21 Assistant Lecturers and four demonstrators.

As mentioned before this institution was started in a rented building known as Dobbin Hall in 1903. Subsequently this building and its surroundings were acquired and buildings were constructed.

In 1949, the following additional works were completed. Extensions to Hygiene, Physiology, laboratories and Library, improvements to the pharmacology laboratory, additions and alterations to the dissecting blocks, constructing of a temporary shed for the Veterinary and Livestock Inspectors course which has subsequently converted into a small animal clinic, sinking of a well and constructing overhead tank of 5,000 gallons capacity.

Consequent on the increase in the number of students admitted to the B.V.Sc. degree course to 120, construction of a three storied building to house some of the Departments has been sanctioned in order, that there might be sufficient space for the various laboratories. Lecture classes, etc., and this work has started.

Research.

Though research does not form part of the regular duties of the professors of the College, the heads of the various Departments of the College from the early days till to day engaged themselves in items of research pertaining to their respective subjects, some of the teachers have gained well merited recognition and brought credit to the college for their published work. After its affiliation to the Madras University, a number of the alumni of this College have taken the Post-graduate Research degrees of the University such as M.Sc. and Ph. D. after conducting research in the laboratories of this College on the subjects approved by the University. At present research scholars are working with the object of taking the Post-graduate degrees of the Madras University in the anatomy, Physiology, Pharmacology, Genetics, Pathology and Helminthology Departments.

The joint Indo-American team of experts on Veterinary Education appointed by the Government of India have recommended the Madras Veterinary College as one of the five advanced institutions, which should be developed into Regional centres of Post-graduate instruction and Research with the present staff and increased facilities

and schemes have been drawn up with this object in view and sent to the State Government and Government of India. When the proposals contained in the above schemes are implemented and the Madras Veterinary College changed to a Regional Centre for Post-graduate instruction and Research in addition to under-graduate teaching it may be confidently hoped that the college will function at a still higher level and justify the recognition of the status of the college and the importance of Research in any scheme of modern scientific education, in animal husbandry and Veterinary Science, for the Development of animal industries and better living of people.

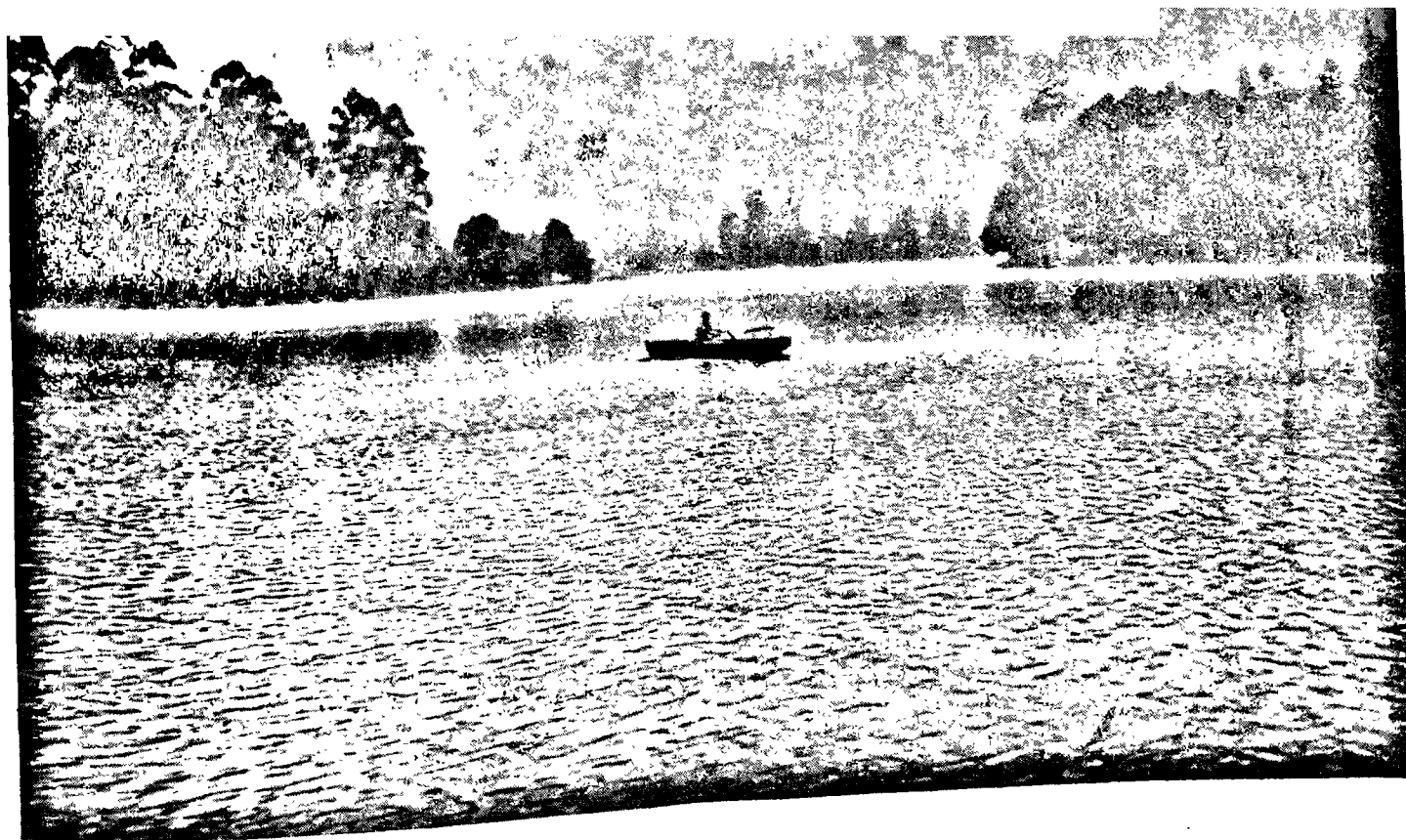
(Continued from page 8)

Government next opened in the premises given by the Corporation, a work house at Royapuram. The Madras Rotary Club donated Rs. 25,000 for equipment to train the inmates in handicrafts. There are about 150 boys now in the work house but there is accommodation for 150 more. The police are constantly instructed to round up more vagrant boys so that they may have a proper home and training.

Duty of the public.

In respect of the disabled and diseased, the Corporation, municipalities and certain recognised private institutions are subsidised to take inmates. On the whole, a good proportion of those on the streets have been removed. A leprosy home, now under consideration should take care of many more. On the whole Government is prepared to help institutions, which are properly run, to extend their accommodation for diseased beggars.

Though much has been done, we are nowhere near the end of beggary. Any general economic depression creates waves of beggars. The proper solution for the problem is therefore increase of gainful employment, which is the purpose of the Five-year Plans. To the extent beggars are eliminated not only will a disgrace disappear from our towns and cities, but crime and disorder will make way for honest work. The public can assist by hardening its impulses of indiscriminate charity, passing its mite, if it likes to organised institutions.



Kodai—"The Jewel of Hill Stations"

Kodaikanal has been rightly described as "The jewel of hill stations". Reputed as one of the three best places in the world, Kodai is climatically superior to any other hill station in India. The equable temperature and low average humidity of the place have helped to establish it as a sanatorium. Compared to the health resorts in India Kodai records the lowest maximum in summer and the highest minimum in winter. Occasional showers almost throughout the year is an added attraction. Situated on the southern crest of the Palni Hills at an altitude of seven thousand feet Kodaikanal with its hills and dales, rocks and lakes, sports and past time, and natural scenery is an holiday resort. The naturalist, the sportsman, the poet and the philosopher all alike will find it a veritable paradise.

The generous splendour of the summer day is never so gorgeous as in Kodaikanal. It is a gem of nature where you can recline "on the cool green ground, or in the weeds or by a

river side or shady fountains, while among the leaves soft airs are stirring and the midday sun unfelt shines brightly round up in our joy".

Thanks to the pioneering efforts of the Englishman who was oppressed by the heat and humidity of the tropical sun Kodaikanal was discovered more than hundred years ago. The American Missionaries of Madurai founded a colony on the hills and the Collector of Madurai, Sir Vere Levinge was the first to construct a stone building in 1860. He was responsible for the construction of roads and bridle paths and for the introduction of European fruit trees and flower plants. Gradually Kodai grew attracting the attention of officials and visitors more and more and to-day it is a municipality with a population of more than ten thousand permanent settlers.

Kodai is easily reached from Madras by train and bus. The nearest air port is Tiruchirappalli which is 71 miles

from Kodaikanal Road Railway Station. Those who proceed from Madras by train get down at Kodaikanal Railway Station. From this point a delightful run on the Ghat Road past rugged scenery for fifty miles brings the tourist to the destination.

At Kodai, the holiday makers will find everything for comfortable living also—good hotels, several boarding houses, numerous bungalows and plenty of social life.

If you intend holiday making in Kodaikanal, these are the tips to make it successful.

After you have feasted your eyes long enough on Kodai's prize possession, its lake, if you are a true lover of nature, you will not want to miss the opportunity which her varied charms provide within a comparatively small circumference on the hill. Indeed so wonderful is its aspect that it has often been likened to Switzerland.

On your very first evening in Kodai, you can take a stroll along the delightful



Coaker's Walk: A stroll along this wooded way presents the visitor with some of the best views which Kodai has at her command.

Coaker's Walk, very near, yet very pretty, presenting you with some of the best views which Kodai has at her command and in particular that of Mt. Perumal.

From this Walk, you also get a view of Dolphin's Nose, about three miles from the lake. A very wide plateau with stones jutting out here and there,

Dolphin's Nose is a picturesque point with awe-inspiring precipices on either side.

A little expedition to Pillar Rocks would be exciting. The place is five miles from the lake. Three rocks stand shoulder to shoulder about 400 feet high, and sweep the plains from their peaks. Just at their foot is a



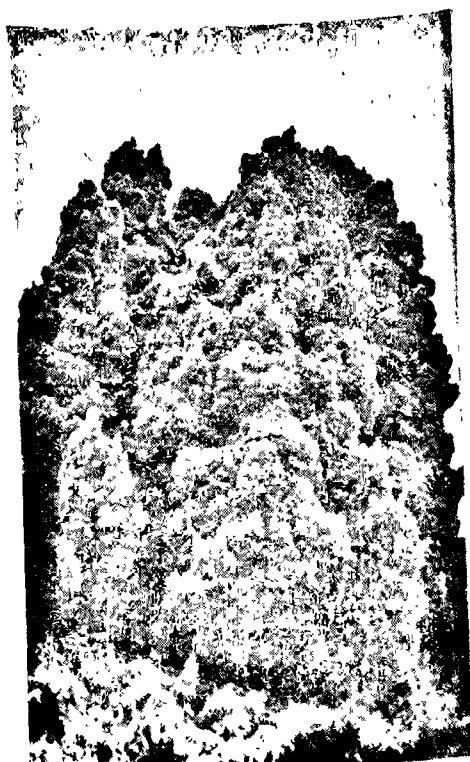
The Pillar Rocks: Five miles from Kodai Lake three rocks stand shoulder to shoulder about 400 feet high and sweep the plains from their peaks.

pretty little cluster of trees, like the sholas of Ooty, where you can picnic rest.

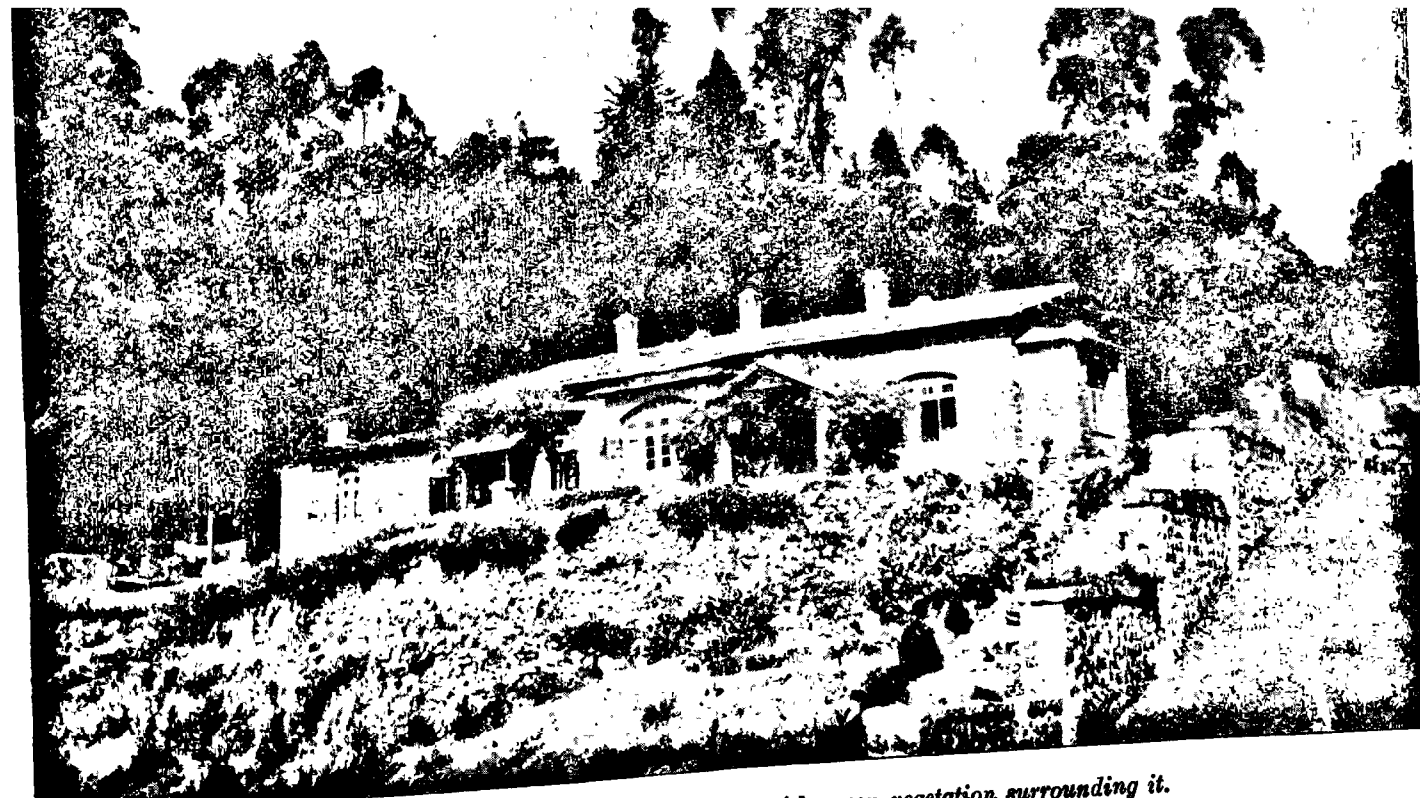
You will notice a steep path somewhere to the right of the pillars. If you like peeping in caves, follow it. It will bring you to their entrance. If you want a still greater thrill, have yourself lowered by means of a rope and squeeze yourself back through the chimney or tunnel which will bring you back to daylight. After you have stopped blinking, you will realise that you have landed behind the Pillars.

When you are on the top of the Pillars look your right and you will see Doctor's Delight, about two miles beyond the Pillars.

Kodai is not just hill and dale. It is also water and fall. So your next trip should be to the waterfalls—the Silver Cascade, the Glen Falls, Pamber and Bear Shola Falls, the Fairy Falls, the finest of them all, less than five miles distant. After you have admired the grand sight you can get down to the foot of the falls and have a



The pretty little cluster of trees at the foot of the Pillar Rocks. This place is a picnic spot.



A typical stone building in Kodaikanal with green vegetation surrounding it.

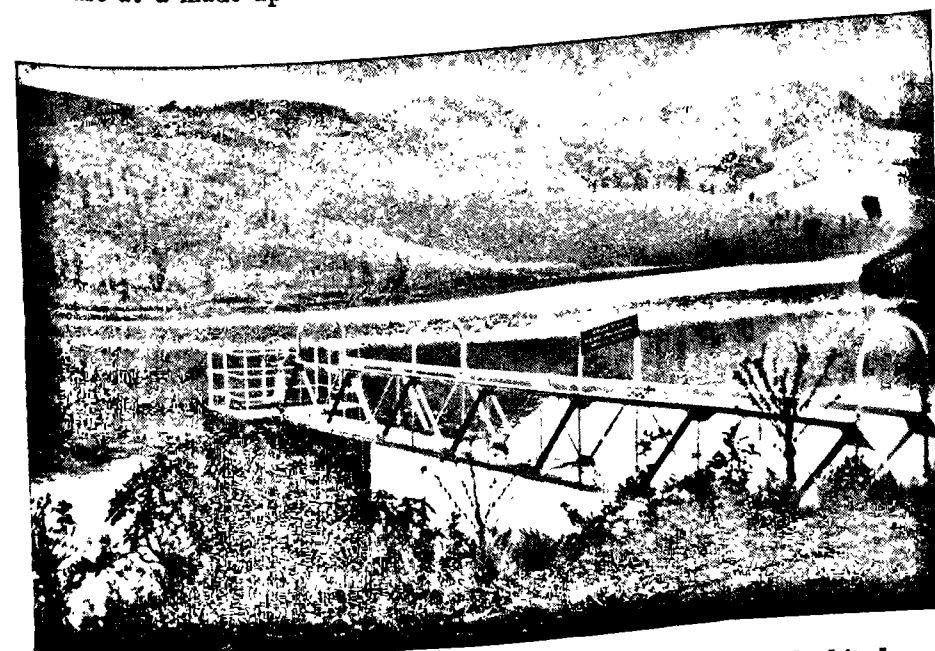
swim or a bath. There are also a few shelters there for you to change in.

On your way back, you can have a look at the reservoir from which Kodai draws its water-supply.

The Silver Falls lie on the main ghat and are at a made up of the overflow

from the lake of Kodaikanal and take a spectacular leap over a sheer precipice of nearly 200 feet.

For pleasant and easy walks, there is Pig Valley Walk and its extension. It cuts through pretty woods and every now and then dazzles you with brilliant views.



Thirteen miles from Kodai lies Berijam Lake. Situated at a high altitude, this lake supplies drinking water to Periyakulam Municipality.

From here you can also reach the Observatory which is built on Nandigipuram Hill, nearly 7,700 feet high. The Observatory which is devoted to the promotion of research work in solar physics is reputed to be the only one of its kind in the country and is worth inspecting. Towards the turn of the century in its vicinity was found what has come to be regarded as the second largest meteorite ever to have been discovered in India. This led to the selection of this commanding site at high altitude for the Observatory.

The Pine Wool Walk, past the Club, the Gold Links, the Pillars, besides providing a very enjoyable four-mile walk also gives you the opportunity of viewing the Fairy Falls and the Observatory on the way. Prospect Point is yet another walk with a destination of beauty to greet you.

But it is the Perumal Peak or the Big Mountain that should be the ultimate ambition of any one visiting Kodaikanal. It is an all-day, all-out excursion and demands great exertion. You can do the first seven miles by car along the main Ghat Road. Start your climb from the vicinity of Mary's which is the cottage of the American Mission or what is known as the Neutral Saddle.

(Continued on page 30.)

To Raise the Tempo of Community Development Schemes

Recommendations of the Inter-State Seminar

A number of recommendations of far-reaching importance aimed at improving the working of Community Development were made by the Fifth Inter-State Seminar held at Kodaikanal in the first week of April.

In the matter of planning of agricultural production, the Seminar recommended that in areas of low rainfall, the State should come forward to assist the farmers for adopting dry-farming methods, soil conservation and afforestation. Fertilisers should be recommended only after soil analysis and that rule for loans should be revised, so that small cultivators even though not landowners would be able to get assistance on security of crops which they produced.

Marketing problems which faced cottage and village industries were discussed in detail and it was felt by the Seminar that production should be absorbed to the fullest possible extent by the surrounding areas and disposal of surplus should be planned on an all-India basis and where possible for export also.

Recommendation for a more effective programme of social education among village women and giving priorities to medical and public health programmes were also made by the Seminar.

Planning of Agricultural Production

Various measures for more effective planning of agricultural production were discussed by the Seminar. Fixation of targets for sales of fertilizers and seeds from above were regarded as not the most effective planning. Village agricultural plans were felt desirable and planning should take into account not only the present needs but expansion of needs as overall agricultural programme were progressively implemented. Due to importance of agricultural production, the village level

worker should concentrate on agricultural programme during active seasons.

In areas of low rainfall, the Seminar recommended State assistance to farmers for adopting dry-farming methods, soil conservation, afforestation, contour bunding, etc. There should be no rigidity about irrigation schemes and State could undertake schemes in addition to minor schemes taken up by the people themselves. In new areas coming under irrigation, other improved methods of increased production should be introduced without loss of time. It was felt that the effectiveness of agricultural extension was frequently handicapped due to lack of simultaneous availability of agricultural supplies and credit. Supplies should be planned so as to ensure availability to the cultivator in time. This involved improving distributing machinery. Fertilizers should be recommended only after soil analysis, and more institutions for this purpose were indicated. The rule for loans should be revised so that small cultivators, even though not landowners, would be able to get assistance on security of crops that they produced. If the recommendations of the Rural Credit Survey Report about linking credit and marketing systems was followed this difficulty would be remedied.

The Seminar felt that group action could be effectively promoted in several fields like purchase of seeds and manures, anti-pest campaigns, provision of storage facilities, marketing, etc.

The gap between farmers with high yields and those with low yields could be narrowed by an extension of credit facilities to the latter and the elimination of fragmented holdings and also by training efficient and enthusiastic farmers to become leaders for encouraging others in the adoption of

progressive cultivation methods. The selected farmers could be given short courses in agricultural research stations and demonstration farms and could be taken on tours to other regions. The Seminar recommended increased use of demonstrations and publicity through audio-visual aids.

Cottage and Small-Scale Industries

There is a provision of Rs. 200 crores in the Second Five-Year Plan for the development of cottage and village industries, funds being distributed through the All-India Boards. State Governments have recently liberalised procedures for obtaining loans under these allotments. The Seminar felt that the measures were generally adequate, but felt that schemes for development of village industries were generally simple and it was not necessary to send every year detailed schemes for sanction of the All-India Boards. Speedy implementation of development programmes would be ensured if the Boards made *ad hoc* allotment for each State and furnished State Governments with model schemes and the pattern of financial assistance for different types of schemes.

Through a major policy change, the emphasis in granting credit for approved items of development has now shifted from credit-worthy individuals to credit-worthy uses. Certain State Governments have simplified the procedure in alignment. This liberalisation was commended by the Seminar which however made the suggestion that financial assistance should normally be routed through industrial co-operatives, and the formation of such co-operatives should be encouraged where they do not exist. The Seminar also recommended delegation of powers to Block Development Officers for grant of small loans.

Historic Monument to the Engineering Skill of the South

of Tanjore to go with large gangs of labourers to the head of Srirangam Island and to construct a dam of grass, clay and sand to divert water into the Cauvery. At the same time, the accumulation of sand in the beds of minor canals and channels was cleared by manual labour and waterways cut in the bed of the main channels and rivers. It was seen with best of efforts, the bed of Cauvery was getting silted up and slowly rising, affecting supplies in the delta. No permanent effect could be produced by periodical silt clearances and so, in 1829, Major Sim, R.E., proposed outlets with undersluices from Cauvery into Coleroon as likely to prove an effective means, to prevent the accumulation of silt, in the upper reaches of the former. Four sets of undersluices were accordingly constructed at various places along the course of the Cauvery. In addition to the above, the "150 yards calingulah" was built in 1834 at a short distance above the 4th set of Cauvery sluices and a new six vents surplus was also built subsequently at Perumal Kovil. The Upper Anicut was converted into a regulator later and dam across Cauvery was built in 1845 to control the flow in Cauvery.

The dimensions of the Dam.

The Grand Anicut is about 16 miles lower down the Upper Anicut. The Cauvery and Coleroon are linked here by Ullar and thus the island of Srirangam is formed between Upper and Grand Anicuts. The anicut here owes its origin to the Raja Karikala Chola and dates back to the second century A.D. The work is of rough stone in clay, built in a serpentine form, 1080 feet long, 40 to 60 feet wide and 15 feet to 18 feet deep stretching across Ullar, the outlet into Coleroon. Its main function was to retain the supply in the Cauvery and pass the surplus into Coleroon. A portion of the crest was in ogee shape while the rest was with steps. It is on record that thousands of Ceylonese labourers were employed for the work, after the conquest of Ceylon by Cholas. This was the first step in the taming of the Cauvery and bringing in irrigation facilities to a large extent in Tanjore delta. In addition to the construction of the anicut, the Chola rulers seem to have

constructed flood embankments to the Cauvery and dug a number of channels and canals from the river, thus laying a firm foundation for the pattern of irrigation that is obtaining now. Even though there was a steady progress under irrigation in this area, history does not record any further spectacular work. On the other hand, the whole system suffered deterioration owing to quarrels and internecine wars amongst the rulers. When the British Government took over Tanjore from the Mahrattas in 1800, the irrigation works were in a badly neglected condition and the supplies received in the Cauvery were found totally inadequate and sporadic. The Coleroon was scouring deeper and the Cauvery silting higher. It was therefore their first responsibility to look into the problems of the delta and put it into proper order. In 1804, Captain Coldwell repaired the Grand Anicut and provided dam stones on the crest and at the same time raised the river embankments above the Grand Anicut, thus forcing more water into Cauvery. During succeeding years, the embankments of various rivers and channels were repaired and extended.

In 1830, the ten scoring sluices, 3 feet wide and 4 feet high with the sills at 179-6 were built. The crest of the dam was a little over 9 feet high above bed. Dam stones were constructed on the top of the projecting crest. About 1840, 2½ feet above the crest. By the existing work as foundation. By the construction of the bridge piers and dam stones, the effective length of the dam was reduced to 735 feet. In 1886, the dam stones were removed and the dam stones were removed and the dam stones falling shutters 2 feet 10 inches (2'-10") high were fitted on the crest. Thirteen years later, i.e. 1899 the falling shutters were removed and lift shutters 5 feet high and 32 feet span were installed in all the 30 arches. In 1909, three of these arches in the scouring sluice portion were washed away and subsequently restored omitting the scouring sluices. New scouring sluices, 5 vents of 20' x 10' provided with radial shutters were built at the right end of the anicut.

To protect the Grand Anicut foundations from scour, a bed regulator was

constructed for a length of 1,100 feet from the nose between the anicut and the scouring sluices on the upstream side with the object of deflecting the low water course away from the anicut towards the Vennar Regulator and thence to the scouring sluices.

As an outcome of the record flood of 1924, which was calculated to be of the order of 475,000 cusecs at the Upper Anicut, a road dam or byewash was constructed in the low padugai about a mile upstream of the Grand Anicut on the left bank of the Cauvery. In the event of any extraordinary flood, this byewash would surplus about 98,600 cusecs into the Coleroon, ensuring the safety of the works at the Grand Anicut to a considerable extent.

The Grand Anicut.

The Grand Anicut or Kall Anai, as called locally, is a name loosely applied to a group of works which comprise (1) Grand Anicut proper, a dam or weir with lifting gates constructed on the left bank of the Cauvery, (2) a group of scouring sluices, (3) the regulators at the heads of the Cauvery and Vennar, the two main canals into which the Cauvery divides itself to irrigate the old delta and (4) the head sluice of the Grand Anicut canal constructed in the early thirties of this century under the Cauvery-Mettur Project.

The Cauvery and Vennar Regulators.

About the year 1886, the imposing regulators of Cauvery and Vennar were constructed immediately downstream of and almost at right angles to the Grand Anicut for distributing the available flow between the Cauvery and the Vennar and also for excluding floods from them. Since 1910, various improvements were carried out to the various structures in the Grand Anicut. The construction or breast walls in the Cauvery and Vennar regulators made it possible to close the regulators entirely and exclude floods from the old delta.

The Grand Anicut Canal Head Sluice.

The Grand Anicut Canal for supply of Cauvery-Mettur Project water to the new delta takes off from the Grand Anicut at its right end. The old Vennar upland drainage course which formerly emptied into the Vennar

(Continued on page 30)

In the Fight Against Beggary

By SRI J. M. LOBO PRABHU, I.C.S.

It is necessary to distinguish between destitution and beggary. The first is the cause and the second is sometimes the result. There has always been destitution even as Christ said "the poor you will always have". Beggary is a feature of communities deficient not only in economics but also in social responsibilities. It is vanishing in progressive countries, and even in India, certain communities like the Sikhs and Parsees ban it absolutely.

The causes of destitution in India are various. In the first place, the average income per head is so low that a large section of the population is destitute in the sense, it lacks the means for the proper development of mind and body. We are however accustomed to regard destitution as lack of the minimum requirements of food and shelter. Starvation is of various degrees of quantity and quality. Only very few die suddenly from it, but some die gradually of malnutrition or under-nutrition. In respect of shelter apart from pavement dwellers and others who live in the open, many have houses which they only use against the inclemencies of the weather, and for cooking or storage. The effect of such conditions on their health is indubitable, even though they are not regarded as destitutes. Under such conditions, the margin of actual destitution is considerable and constant. To some extent the joint family system masks and mitigates the worst cases. But for it, the distress could be more obvious, even politically important.

The second cause of destitution is physical incapacity, either actual disease or infirmity. The census reveals though not fully the large proportions of those suffering from disabling diseases. Medical aid which is growing may reduce the pain of these diseases but not the disabling effects. Infirmity is not generally a result of

age, as the poor rarely live long. It is generally the result of bad nutrition and disease.

A third cause of destitution is lack of employment opportunities. In the villages, work is largely seasonal in agriculture and insignificant in other occupations. Employment in cities, and towns is better paid, but is limited to a small proportion. It is significant that the number employed in factories has not significantly increased during the last five years.

Unwillingness to work.

Fourthly, destitution is of the person's own seeking, his unwillingness to work generally or to work except in certain occupations. There is still much snobbery about the work certain castes, or classes should do. Manual work is generally refused by those even slightly educated. Domestic service also is confined to certain classes. Those unwilling to do any work at all, generally rely on others earning for them. Apart from women, this class is still considerable.

A certain proportion of destitute become beggars. The causes of beggary are, first that it is an easy profession, second that it is frequently very paying, and third that it provides opportunities for an interesting life, shared by the beggars together. A very revealing book is the "Mask of the Lion" in which lepers are described as enjoying their freedom, almost as if it was an adventure.

Beggary is encouraged first by the disposition of the people to be charitable, second by the attitude that beggars will be always with us and third by the absence of adequate poor or work-houses. It is a little difficult to change personal attitudes. Beggars

collect at places of worship, where frequently a sense of guilt makes a person drop a copper. They collect at places where people are detained, bus stops, level crossings, where they succeed by importunity when they fail otherwise to excite charity. The fact that the State has no adequate provision for beggars stimulates a sense of responsible generosity. The problem therefore is how the State and public institutions can provide for all beggars, so that the public is not touched by any sense of pity for the beggars on the road.

Strategy in Madras State.

In the Madras State, the strategy against beggary is based on the provision of Poor and Work-Houses. The first proper work house was established for 500 able bodied beggars at Mel-pakkam. This permitted the majority of adult beggars being swept away from the streets of Madras. They were either taken to the workshop or made themselves scarce for fear of being taken there. The result was that work was obtained from the able bodied at the work house, while work was adopted by those who had resorted to beggary only because it was a better profession. On the average, for one beggar taken to the workhouse, nearly four returned to their own occupations. The steadily growing tide of beggars from the villages also stopped. The workhouse itself was a good economic proposition, on one hand it trained the beggars to an occupation and on the other, it took work from them, equal nearly to half the cost of their maintenance. The success of this work-house encouraged government to establish similar ones in important Municipalities, which were offered a capitation grant of Rs. 10 for each beggar and the free services of the police staff. For the juvenile beggars who still infested the streets,

(Continued on page 20)



Women Welfare and Community Development workers of Kadambattur Block met Chief Minister Sri K. Kamaraj at the Secretariat on 30th March 1957.

(Continued from page 14)

obtained. Reports are there that a few number of colonies have had yielded more than 60 pounds of honey each during one year particularly on the Kodaikanal Hills, Nilgiris, Coorg, South Kanara, North Kanara, Mahabaleshwar, etc., on the Western Ghats and that a maximum of 130 pounds of honey was obtained from a single colony in Thandikudi in Kodaikanal Hills during 1955. Given good shelters and proper attention, the bees in selected suitable areas like the plantation area of the Kodaikanal Hills must respond well and yield an average crop of 40 pounds per hive in a year which compares favourably well with the average honey yields of many countries in Europe. Bee-keeping needs continuous research, and sustained efforts to make it a paying

industry in as much as it is fascinating and called the "Queen of hobbies". Even at the rate of one pound of honey per head per year India needs as much as 360 million pounds and over for distribution to her population for which her present production by way of bee-keeping is estimated to be only about one million pounds of honey. Steps will have to be taken to meet this demand by encouraging bee-keeping in all suitable areas.

In the Madras State.

As a result of propaganda and intensive development of Bee-keeping under the All-India Khadi and Village Industries Board's Scheme in selected areas in Madurai, Ramanathapuram, Nilgiris and Kanyakumari districts there are over 20,000 bee colonies (approximately) owned by about 4,000 persons and producing about 2,00,000 pounds of honey during the year in the

Madras State. Plans for the establishment of a Bee Farm for research, training and production, bee nurseries, one for every district, distribution of bee hives in Block Development areas, etc., are included in the Second Five-Year Plan. Training in Bee-keeping is conducted at Marthandam and Kodaikanal and the subject is taught in all the Basic Agricultural and Extension Training Centres for Gram Sevaks. Investigations on the possibilities of establishing Forest Apiaries for large-scale production are also being carried on. As the industry is being developed, the need for the formation of a State Bee-keepers' Association is felt for further organized effort and consolidation and it is hoped that the public will lend their co-operation for the cause.

The Madras Legislative Assembly

Names of the Newly Elected Members

The following members have been elected to the Madras Legislative Assembly in the Second General Elections. The serial number of the constituency, the name of the constituency and the name of the member are given below :—

Serial number.	Name of constituency.	Name of member.
1	Washermanpet ..	Sri M. Mayandi Nadar.
2	Harbour ..	Dr. U. Krishna Rao.
3	Basin Bridge ..	Kumari T. N. Anandanayaki.
4	Perambur ..	Sri Pakkiriswami Pillai.
5	Perambur ..	Srimathi Sathiaivanimuthu.*
6	Thousand Lights.	Sri A. V. P. Asaithambi.
7	Egmore ..	Sri K. Anbazhagan.
8	Triplicane ..	Sri K. S. G. Haja Shareef.
9	Mylapore ..	Sri C. R. Ramaswamy.
10	Thiagarayanagar.	Sri K. Vinayakam.
11	Madurantakam ..	Sri O. Venkatasubba Reddy.
12	Madurantakam ..	Sri P. S. Ellappan.*
13	Chingleput ..	Sri Muthusamy Nayagar.
14	Chingleput ..	Sri Appavu.*
15	Saidapet ..	Sri A. S. Duraiswami Reddiar.
16	Ponneri ..	Sri V. Govindaswami Naidu.
17	Ponneri ..	Sri T. P. Elumalai.*
18	Gummidipundi ..	Srimathi Kamalambujammal.*
19	Tiruvallur ..	Sri N. Ekambara Mudaly.
20	Tiruvallur ..	Sri V. S. Arunachalam.*
21	Sriperumbudur ..	Sri M. Bhaktavatsalam.
22	Uttiramerur ..	Sri V. K. Ramaswamy Mudaliar.
23	Kancheepuram ..	Sri C. N. Annadurai Mudaliar.
24	Arkonam ..	Sri S. C. Sadayappa Mudaliar.
25	Sholinghur ..	Sri B. Bhakthavathsalu Naidu.
26	Cheyyar ..	Sri P. Ramachandran.
27	Wandiwash ..	Sri M. Ramachandra Reddiar.
28	Wandiwash ..	Sri D. Dasarathan.*
29	Arcot ..	Sri S. Khader Sheriff.
30	Ranipet ..	Sri Chandrasekara Nayagar.
31	Gudiyattam ..	Sri V. K. Kothandaraman.
32	Gudiyattam ..	Sri T. Manavalan.*
33	Vellore ..	Sri M. P. Sarathy.
34	Ambur ..	Sri Krishnamoorthy.
35	Ambur ..	Sri Munusami.*
36	Arni ..	Sri P. Duraiswami Reddiar.
37	Polur ..	Sri S. M. Annamalai.
38	Thurinjapuram ..	Sri M. A. Manickavelu.
39	Tiruvannamalai ..	Sri P. U. Shanmugam.
40	Tiruvannamalai ..	Sri C. Santhanam.*
41	Chengam ..	Sri T. Karia Gounder.
42	Vaniyambadi ..	Sri A. A. Rasheed.
43	Tirupattur ..	Sri R. C. Samanna Gounder.
44	Harur ..	Sri P. M. Munusamy Gounder.
45	Harur ..	Sri M. K. Mariappan.*
46	Krishnagiri ..	Sri S. Nagaraja Monigar.
47	Uddanapalli ..	Sri M. Muni Reddi.

Serial number.	Name of constituency.	Name of member.
48	Hosur ..	Sri K. Appavoo Pillai.
49	Pennagaram ..	Srimathi Hemalatha Devi.*
50	Dharmapuri ..	Sri M. Kandasami Kandar.
51	Yercaud ..	Sri S. Lakshmana Gounder.
52	Yercaud (Reserved for Scheduled Tribe).	Vacant.
53	Salem I ..	Sri A. Mariappan.
54	Salem II ..	Sri A. Rathnavel Gounder.
55	Veerapandy ..	Sri M. R. Kandaswamy Mudaliar.
56	Taramangalam ..	Sri N. S. Sundararajan.
57	Mettur ..	Sri K. S. Ardhanareswara Gounder.
58	Sankari ..	Sri K. S. Subramania Gounder.
59	Tiruchengode ..	Sri T. M. Kaliannan.
60	Tiruchengode ..	Sri R. Kandasami.*
61	Namakkal ..	Sri Kolanda Gounder.
62	Namakkal ..	Sri M. P. Periasami.*
63	Sendamangalam.	Sri T. Sivagnanam Pillai.
64	Rasipuram ..	Sri A. Raja Gounder.
65	Attur ..	Sri M. P. Subramaniam.
66	Attur ..	Sri Irusappan.*
67	Kallakurichi ..	Sri Nataraja Odayar
68	Kallakurichi ..	Sri M. Anandan.*
69	Tirukoilur ..	Sri S. A. M. Annamalai Odayar.
70	Tirukoilur ..	Sri Kuppusami.*
71	Sathiamangalam.	Sri K. Gopal Kounder.
72	Gingee ..	Sri M. Jangal Reddiar.
73	Tindivanam ..	Sri P. Veerappa Kounder.
74	Tindivanam ..	Sri M. Jagannathan.*
75	Valavanur ..	Sri A. Govindasamy Nayagar.
76	Villupuram ..	Sri Sarangapani.
77	Ulundurpet ..	Sri Kandasami Padayachi.
78	Cuddalore ..	Sri P. R. Srinivasa Padayachi.
79	Nellikuppam ..	Sri Sivachidambaram Ramaswamy Padayachi.
80	Nellikuppam ..	Sri Thangavelu.*
81	Nallur ..	Sri Vedamanickam.
82	Vridhachalam ..	Sri M. Selvaraj.
83	Bhuvanagiri ..	Sri Samikannu Padayachi.
84	Chidambaram ..	Sri G. Vagheesam Pillai.
85	Chidambaram ..	Sri Swami Sahajananda.*
86	Sirkali ..	Sri C. Muthiah Pillai.
87	Sirkali ..	Sri K. B. S. Mani.*
88	Mayuram ..	Sri G. Narayanasami Naidu.
89	Mayuram ..	Sri P. Jeyaraj.*
90	Nannilam ..	Sri M. D. Thiagaraja Pillai.
91	Nannilam ..	Sri M. C. Muthukumaraswamy.*
92	Nagapattinam ..	Sri N. S. Ramalingam.
93	Thiruthurai ..	Sri A. Vedaratnam.
94	Thiruthurai ..	Sri V. Vedayyan.*
95	Mannargudi ..	Sri T. S. Swaminatha Odayar.
96	Aduthurai ..	Sri Ramamirida Thondaman.

Serial number.	Name of constituency.	Name of member.	Serial number.	Name of constituency.	Name of member.
97	Kumbakonam ..	Sri T. Sampath.	154	Alangulam ..	Sri Veluchamy Thevar.
98	Papanasam ..	Sri G. Venkitachala Nattar.	155	Sankarankoil ..	Sri A. R. Subbiah Mudaliar.
99	Papanasam ..	Sri R. Subramaniam.*	156	Sankarankoil ..	Sri Urkavalan.*
100	Tiruvayar ..	Sri R. Swaminatha Merkondar.	157	Kanyakumari ..	Sri Ramaswami Pillai.
101	Tanjore ..	Sri A. Y. S. Parisutha Nadar.	158	Nagercoil ..	Sri A. Chidambaranatha Nadar.
102	Gandarvakottai ..	Sri Krishnasami Gopalar.	159	Colachel ..	Srimathi Lourdammah.
103	Adirampatnam ..	Sri A. R. Marimuthu.	160	Padmanabhapuram.	Sri Thompson Tharmaraj Daniel.
104	Pattukkottai ..	Sri R. Srinivasa Ayyar.	161	Killiyoor ..	Sri A. Nesamony.
105	Arantangi ..	Sri S. Ramasami Thevar.	162	Vilvankode ..	Sri M. William.
106	Tirumayam ..	Sri Ramaiah.	163	Uthamapalayam.	Sri K. Pandiaraj.
107	Alangudi ..	Sri Arunachala Thevar.	164	Bodinayakanoor.	Sri A. S. Subbaraj.
108	Alangudi ..	Sri Chinniah.*	165	Kodaikanal ..	Sri M. Alagirisami.
109	Andanallur ..	Sri G. Annamalai Muthuraja.	166	Theni ..	Sri N. R. Thiagarajan.
110	Tiruchirappalli I.	Sri E. P. Mathuram.	167	Theni ..	Sri M. M. Velappan.*
111	Tiruchirappalli II.	Sri M. Kalyanasundaram.	168	Usilampatti ..	Sri K. Mookiah Thevar.
112	Srirangam ..	Sri K. Vasudevan.	169	Thirumangalam.	Sri A. V. P. Periaivalaguruva Reddi.
113	Lalgudi ..	Sri S. Lazar.	170	Madurai East ..	Srimathi P. K. R. Lakshmi-kantham.
114	T. Palur ..	Sri T. K. Subbaiah.	171	Madurai Central.	Sri V. Sankaran.
115	Jayankondan ..	Sri K. R. Viswanathan.	172	Thirupparankundram.	Sri S. Chinnakaruppa Thevar.
116	Ariyalur ..	Sri Ramalinga Padayachi.	173	Nilakkottai ..	Sri W. P. A. R. Chandrasekaran.
117	Perambalur ..	Sri Krishnasami..	174	Nilakkottai ..	Srimathi A. S. Ponnammal.*
118	Perambalur ..	Sri Periannan.*	175	Melur ..	Sri M. Peria Karuppan Ambalam.
119	Musiri ..	Sri V. A. Muthaiya.	176	Melur ..	Sri P. Kakkan.*
120	Musiri ..	Sri T. V. Sannasi.*	177	Vadamadurai ..	Sri T. Thirumalaimuthu Veerasakkaya Thiruvankadasamy Naicker.
121	Karur ..	Sri T. M. Nallaswamy.	178	Vedasandur ..	Srimathi T. S. Soundaram Ramachandran.
122	Aravakurichi ..	Sri S. Sadasivam.	179	Dindigul ..	Sri M. J. Jamal Mohideen.
123	Kulittalai ..	Sri M. Karunanidhi.	180	Authoor ..	Sri M. A. B. Arumugasamy Chettiar.
124	Panjapatti ..	Sri Karunagiri Muthiah.	181	Ottanchatram ..	Sri Karuthappa Gounder.
125	Manapparai ..	Sri N. P. M. Chinnayya Kavundar.	182	Palani ..	Sri Lakshmiapathiraj.
126	Tirukoshtiyur ..	Sri N. V. Chockalingam.	183	Udamalpet ..	Sri S. T. Subbayya Gounder.
127	Karaikudi ..	Sri M. A. Muthiah Chettiar.	184	Pollachi ..	Sri N. Mahalingam.
128	Sivaganga ..	Sri D. Subramaniam Rajkumar.	185	Pollachi ..	Sri K. Ponnian.*
129	Tiruvadanai ..	Sri Kr. Rm. Kariamamickam Ambalam.	186	Koilpalayam ..	Sri C. Subramaniam.
130	Manamadurai ..	Sri R. Chidambara Barathi.	187	Dharapuram ..	Sri A. Senapathi Gounder.
131	Paramakudi ..	Sri K. Ramachandran.	188	Kangayam ..	Sri K. G. Palanisamy Gounder.
132	Ramanathapuram ..	Sri Shanmugha Rajeswara Sethupathi.	189	Chennimalai ..	Sri K. R. Nallasivam.
133	Mudukulathur ..	Vacant.	190	Erode ..	Sri V. S. Manickasundaram.
134	Mudukulathur ..	Sri A. Perumal.*	191	Perundurai ..	Sri N. K. Palanisamy.
135	Aruppukkottai ..	Sri M. D. Ramasamy.	192	Bhavani ..	Sri G. G. Gurumurthi.
136	Sattur ..	Sri K. Kamaraj Nadar.	193	Bhavani ..	Sri P. G. Manickam.*
137	Sivakasi ..	Sri S. Ramasami Naidu.	194	Gobichettipalayam.	Sri P. G. Karuthiruman.
138	Srivilliputhur ..	Sri R. Krishnasami Naidu.	195	Nambiyur ..	Sri K. L. Ramaswami.
139	Srivilliputhur ..	Sri A. Chinnasami.*	196	Tiruppur ..	Sri K. N. Palanisami.
140	Koilpatti ..	Sri V. Suppaya Naicker.	197	Palladam ..	Sri P. S. Chinnadurai.
141	Kadambur ..	Sri K. Ramasubbu.	198	Coimbatore I ..	Srimathi Savitri Shanmugam.
142	Kadambur ..	Sri S. Sangili.*	199	Coimbatore II ..	Sri Palaniswamy.
143	Tuticorin ..	Sri P. P. M. T. Ponnuswami.	200	Coimbatore II ..	Sri Marudachalam.*
144	Srivaikuntam ..	Sri A. P. C. Veerabahu.	201	Sulur ..	Srimathi Kulanthaiammal.*
145	Tiruchendur ..	Sri M. S. Selvarajan.	202	Avanashi ..	Sri K. Marappa Gounder.
146	Sattangulam ..	Sri S. B. Adityan.	203	Mettupalayam ..	Srimathi D. Raghubadhi Devi.
147	Radhapuram ..	Sri A. V. Thomas.	204	Coonoor ..	Sri J. Matha Gowder.
148	Nanguneri ..	Sri M. G. Sankar.	205	Ootacamund ..	Sri B. K. Linga Gowder.
149	Tirunelveli ..	Srimathi Rajathi Kunchithapatham.			
150	Tirunelveli ..	Sri Somasundaram.*			
151	Ambasamudram ..	Sri Gomathi Sankara Deekshidar.			
152	Kadayam ..	Sri D. S. Authimoolam.			
153	Tenkasi ..	Sri K. Sattanatha Karayalar.			

NOTE.—* Elected to the seat reserved for Scheduled Castes.

Members Elected to Lok Sabha

The members who have been elected to the Lok Sabha from Madras State and the constituencies are given below—

Constituency.	Name.	Constituency.	Name.
1 Chidambaram ..	Sri R. Kanagasabai Pillai.	20 Namakkal (R) ..	Sri S. R. Arumugam (SC).
2 Chidambaram (R)	Sri L. Elayaperumal (SC).	21 Nilgiris ..	Sri C. Nanjappan.
3 Chingleput ..	Dr. A. Krishnaswamy.	22 Perambalur ..	Sri M. Palaniandi.
4 Chingleput (R) ..	Sri N. Sivaraj (SC).	23 Periyakulam. ..	Sri Narayanasamy.
5 Coimbatore ..	Srimathi Parvathi Krishnan.	24 Pollachi ..	Sri P. R. Ramakrishnan.
6 Cuddalore ..	Sri T. D. Muthukumarasamy Naidu.	25 Pudukkottai ..	Sri R. Ramanathan Chettiar.
7 Dindigul ..	Sri Gulam Mohideen.	26 Ramanathapuram.	Sri P. Subbaiah Ambalam.
8 Dindigul (R) ..	Sri Balakrishnan (SC).	27 Salem ..	Sri S. V. Ramaswami.
9 Gobichettipalayam.	Sri Ramasami Gounder.	28 Srivilliputhur ..	Sri U. Muthuramalinga Thevar.
10 Karur ..	Sri K. Periasami Gounder.	29 Srivilliputhur (R).	Sri R. S. Arumugam (SC).
11 Krishnagiri ..	Sri C. R. Narasimhan.	30 Tanjore ..	Sri R. Venkataraman.
12 Kumbakonam ..	Sri C. R. Pattabhiraman.	31 Tenkasi ..	Sri M. Sankarapandian.
13 Madras North ..	S. C. C. Anthony Pillai.	32 Thiruvannamalai	Sri Dharmalingam.
14 Madras South ..	Sri T. T. Krishnamachari.	33 Tindivanam ..	Sri Shanmugham.
15 Madurai ..	Sri K. T. K. Thangamani.	34 Tiruchendur ..	Sri T. Ganapathy.
16 Nagapattinam ..	Sri K. R. Sambandam.	35 Tiruchengode ..	Dr. P. Subbarayan.
17 Nagapattinam (R).	Sri M. Ayyakannu (SC).	36 Tiruchirappalli ..	Sri M. K. M. Abdul Salam.
18 Nagercoil ..	Sri Thanulingam Nadar.	37 Tirunelveli ..	Sri Thanu Pillai.
19 Namakkal ..	Sri E. V. K. Sampath.	38 Tirupattur ..	Sri A. Duraisamy Gounder.
		39 Tiruvallur ..	Sri R. Govindarajulu Naidu.
		40 Vellore ..	Sri N. R. Muniswami.
		41 Vellore (R) ..	Sri M. Muthukrishnan (SC).

(Continued from page 7)

below the site of the new canal head was diverted for a considerable length and now discharges into the Cauvery on the upstream side of the new canal. The head sluice of the Grand canal consists of 6 vents of 30'x5½'. The vents are fitted with radial steel shutters, hand operated through worm gearing.

This historic Grand Anicut is visited by a large number of tourists and Engineers alike. To make the place more impressive it is being electrified. Gardens and parks in the area are being laid out with fountains and statues at suitable places. A small shrine dedicated to Sri Hanuman, the guarding deity, is located in the middle of the anicut. This shrine attracts considerable number of pilgrims.

The Cauvery river is called the 'Ponni' or the golden river. Whether it is due to the gold held in the river water as is popularly believed in some quarters or whether it is due to the large production of wealth for

which the river is responsible, it is immaterial for us to debate. Suffice it to say, that thanks to the premier effort of Raja Karikala Chola, who as early as the Second Century had the vision and energy to tame the river and harness its waters to the benefit of Tanjore district, it was possible for this district to be hailed as the 'Granary of South India'. Although done in a rather crude manner, in those early days, the effort of Karikala has borne fruit beyond, perhaps, his most sanguine expectation and the work has formed the basis for further improvements from 19th century onwards and in its present condition, it is amply fulfilling its onerous task of distributing supplies to the old and new deltas in Tanjore district to an extent of about 13 lakhs of acres besides sending down supplies to a further extent of 1-08 lakhs of acres under the Lower Coleroon Anicut in South Arcot District. As an humble tribute to the memory of the pioneer Royal Engineer of the 2nd century A.D. (Raja Karikala Chola), a statue of his has now been erected to adorn the park.

(Continued from page 23)

The first thousand feet or so will test your mettle. Altogether, the upward way comprises about 5 miles which you can make in easy stages. The earlier in the morning you reach the top the better. The splendid views which you will legitimately expect as the reward of your panting labours are at their best up to ten or so. Later, haze, mist, fog or cloud, jealously hide the scenic treasures from your sight. Don't worry unduly about the distance or the climb. The air is so fresh and bracing that you will feel restored to double your normal energy once on top. The panorama embraces the entire country—Madurai, Virudhunagar, Tiruchirappalli, Palani, even the Nilgiris and the Kodai Plateau.

The total revenue from fisheries for the year 1955-56 amounted to Rs. 23,23,528 against the expenditure of Rs. 25,80,063 when compared to the revenue of Rs. 22,36,752 and expenditure of Rs. 26,05,614 in 1954-55. There was a slight increase in revenue and a reduction in expenditure.

Balanced Diet for The Family

Tips to the Indian Housewife

By **Dr. (Smt.) RAJAMMAL P. DEVADAS**, Chief Home Economist, Directorate of Extension and Training, Ministry of Agriculture.

Since the family budget for food-stuffs is a limiting factor for many people in their effort to procure optimum nutrition, it is necessary, particularly in India, to find cheaper and inexpensive substitutes for comparatively costly foods like milk, egg, fish and meat.

Groundnut milk, which is easily prepared by grinding groundnut and mixing it with proper proportions of lime, cod-liver oil and sugar, is a good substitute for milk. Sprouted grams supply large quantities of vitamin C.

Groundnut butter is as good as meat or fish.

One need not always spend extra money to get better nutrition. Much benefit can be derived by modifying existing food habits and combinations. A small quantity of milk mixed with cereal or dhal gives more nutrition than cereal or milk alone.

In Mysore and some parts of Andhra and Tamilnad, where ragi is used in combination with buttermilk and green leafy vegetables, people enjoy good

health. Cod-liver oil protects the body against many diseases.

Basic Foods.

The housewife should plan to feed the family with essential or basic foods. All the foods required for maintaining health and growth of the body are divided into three groups according to the functions of food, namely, those which (i) furnish energy for work, (ii) provide materials for growth and repair, and (iii) supply substances for regulating body functions.

(Continued on page 32)

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Our Women Legislators

Twelve women have been elected to the Madras Legislative Assembly in the Second General Elections. Of these twelve, eleven belong to the National Congress and the other to the Dravida Munnetra Kazhagam. Twenty-four women contested the elections on behalf of various political parties and as Independents. Of the thirteen set up by the Congress Party eleven were successful and the only women candidate that contested a Reserve seat on behalf of D.M.K. was elected.

The women legislators from Madras are:—

1 Srimathi Anandanayaki ..	Congress.	Basin Bridge.
2 Srimathi Savitri Shanmugam.	Do.	Coimbatore I.
3 Srimathi Lourdammal ..	Do.	Colachel.
4 Srimathi Kamalambujammal.	Do.	Gummidipundi.
5 Srimathi P. K. R. Lakshmi- kantham.	Do.	Madurai East.
6 Srimathi D. Raghubathi Devi.	Do.	Mettupalayam.
7 Srimathi A. S. Ponnammal ..	Do.	Nilakkottai.
8 Srimathi Hemalatha Devi ..	Do.	Peennagaram.
9 Srimathi Sathiananimuthu (SC)	D.M.K.	Perambur (R).
10 Srimathi Kulanthai Ammal ..	Congress.	Sulur.
11 Srimathi Rajathi Kunjitha- patham.	Do.	Tirunelveli.
12 Srimathi T. S. Soundaram Ramachandran.	Do.	Vedasandur.

The Madras State will be represented in the Lok Sabha by a solitary woman Legislator. She is Srimathi Parvathi elected on Communist Party of India ticket from Coimbatore Urban Constituency. Three women contested elections for the Lok Sabha.

Twenty-seven women have been elected to the Lok Sabha, and 195 to the various State Assemblies in the Second General Elections as compared to 21 and 80 respectively in the last elections.

Twenty-three women elected to the Lok Sabha belong to the Congress Party, two to the Communist Party and two to the Cho Ntaagpur Santhal Parganas Janata Party.

Of those elected to the State Assemblies, 179 belong to the Congress, four to the Communist Party, one to the People's Democratic Front, two to the Chota Nagpur Santhal Parganas Janata Party, three to the Ganatantra Parishad, one to the D.M.K. and the remaining five are Independents.

The Bihar Assembly will have 32 women, the largest for any State followed by Madhya Pradesh with 27, Uttar Pradesh with 26, Bombay with 25 and Mysore with 18.

Books and Publications

The journal of the Tanjore Sarasvati Mahal Library. Edited by S. Gopalan, Honorary Secretary. Annual Subscription Rs. 4 only.

This is a scholarly production. It contains original articles and source materials. The journal will be found interesting especially by those with an intellectual bent of mind.

(Continued from page 31)

The energy producing foods are mainly cereals—the most economic food in the world—and are called 'the staff of life'. These include rice, *ragi* wheat, *kambu*, *chulam*, bread, sago, tapioca, and starchy vegetables like potato, sugar and fats.

Protein foods, which mainly help in building up various parts of the human body, include milk, pulses, nuts, meat, fish and eggs. Since milk, egg and fish are comparatively expensive, the poorer people have to depend upon pulses and groundnuts for the supply of proteins.

Fortunately, groundnut, which is available and widely used in most parts of our country, is a rich source of protein, almost as good as meat.

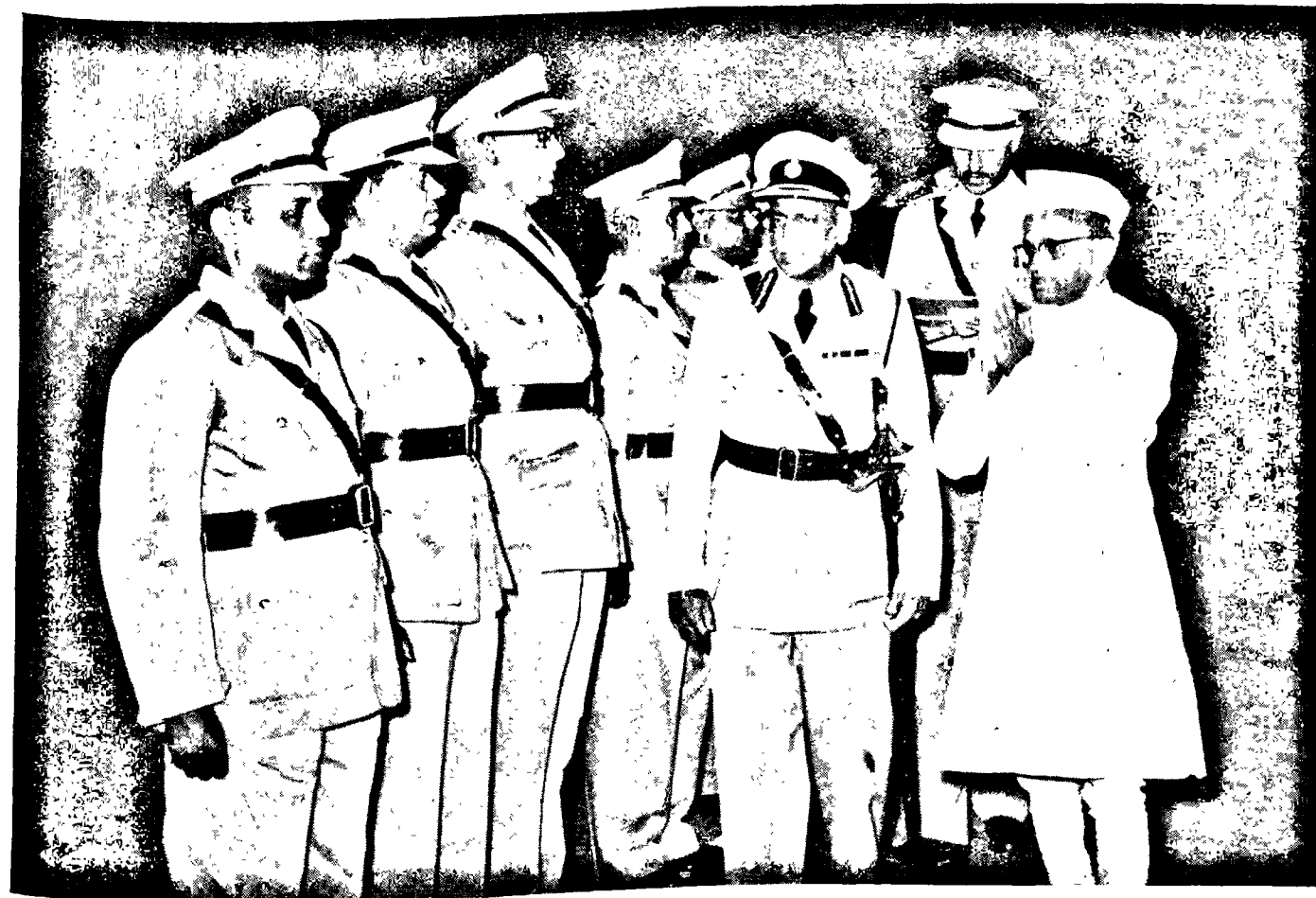
Foods to regulate functions of the body and protect it against diseases—the third category—are needed in small amounts, but are essential to health and the normal working of the body.

Iron rich foods, such as *ragi*, green leafy vegetables and liver, calcium rich foods such as green leafy vegetables *ragi*, milk and drumstick, and vitamin rich foods such as green leafy vegetables green vegetables, milk, eggs, liver, tomatoes, and citrus fruits, are some of the main protective foods.

The housewife should include at least one food from the three groups in order to make the daily diet balanced.

She should apply suitable methods of cooking in order to get the maximum nutritive value, palatability and attractiveness. Vegetables should be cooked in the smallest amount of water for the shortest time. No cooking water should be discarded. Some vegetables like carrots, radish, lettuce, cucumber, cabbage, tomatoes, mint and *kothumalli* leaves and green chillies should be served raw fairy.

The food cooked should be served in a pleasant and cordial atmosphere. Even the most adequate food can be spoiled by improper methods of serving.



The presentation of awards and the ceremonial passing out parade of the Police Force was held at Rajarathinam Stadium, Pudupet Lines, Madras. Sri A. J. John, Governor took the salute and presented the medals. He is seen here being introduced to Senior Police Officials by Sri V. R. Rajarathinam, Inspector-General of Police.

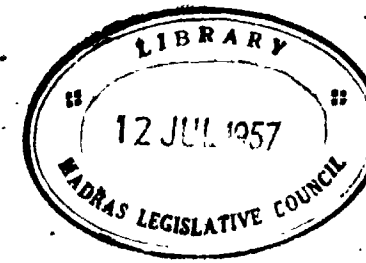
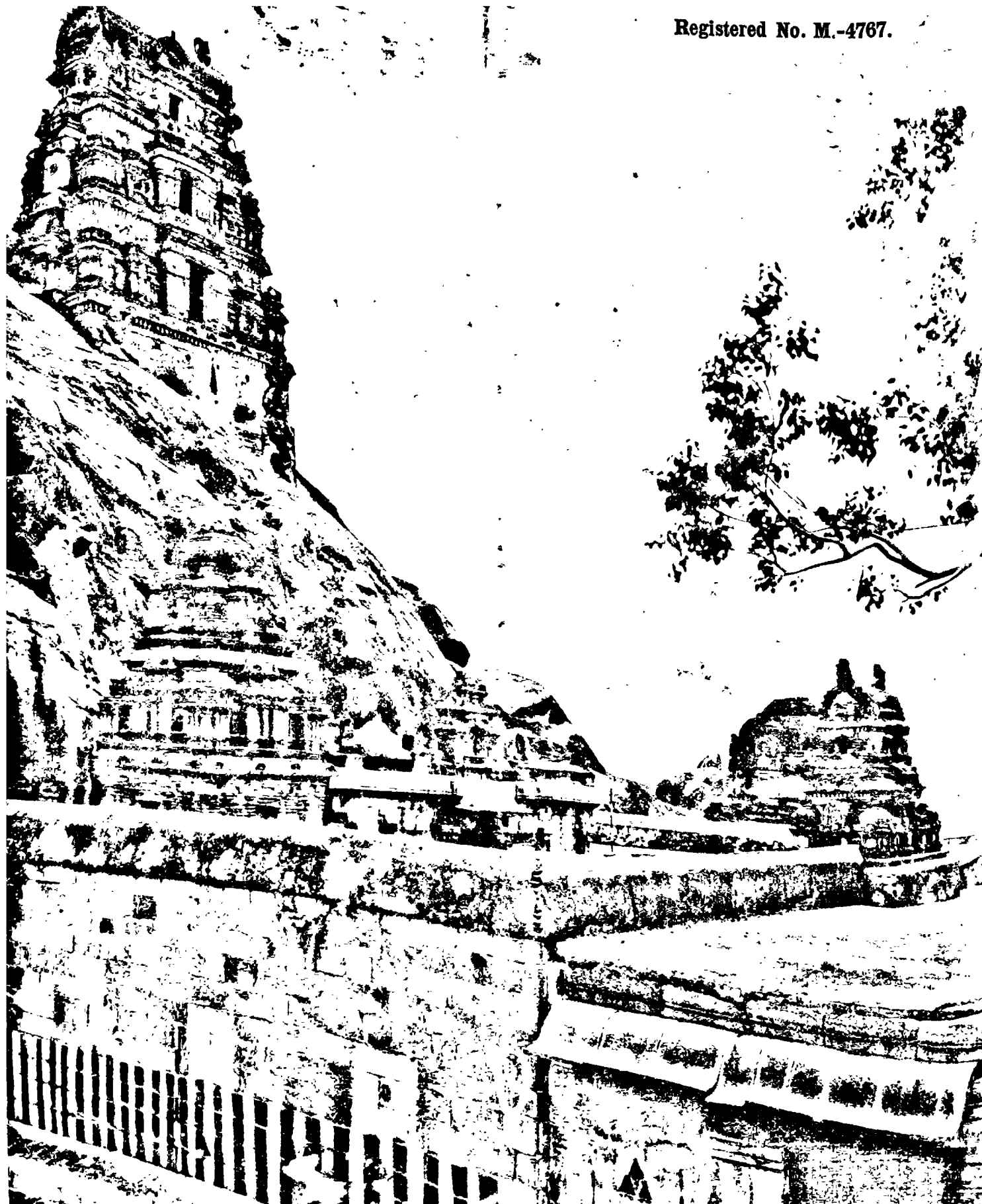


Sri F. V. Arul, Commissioner of Police, was decorated by Governor Sri A. J. John for rendering meritorious service.



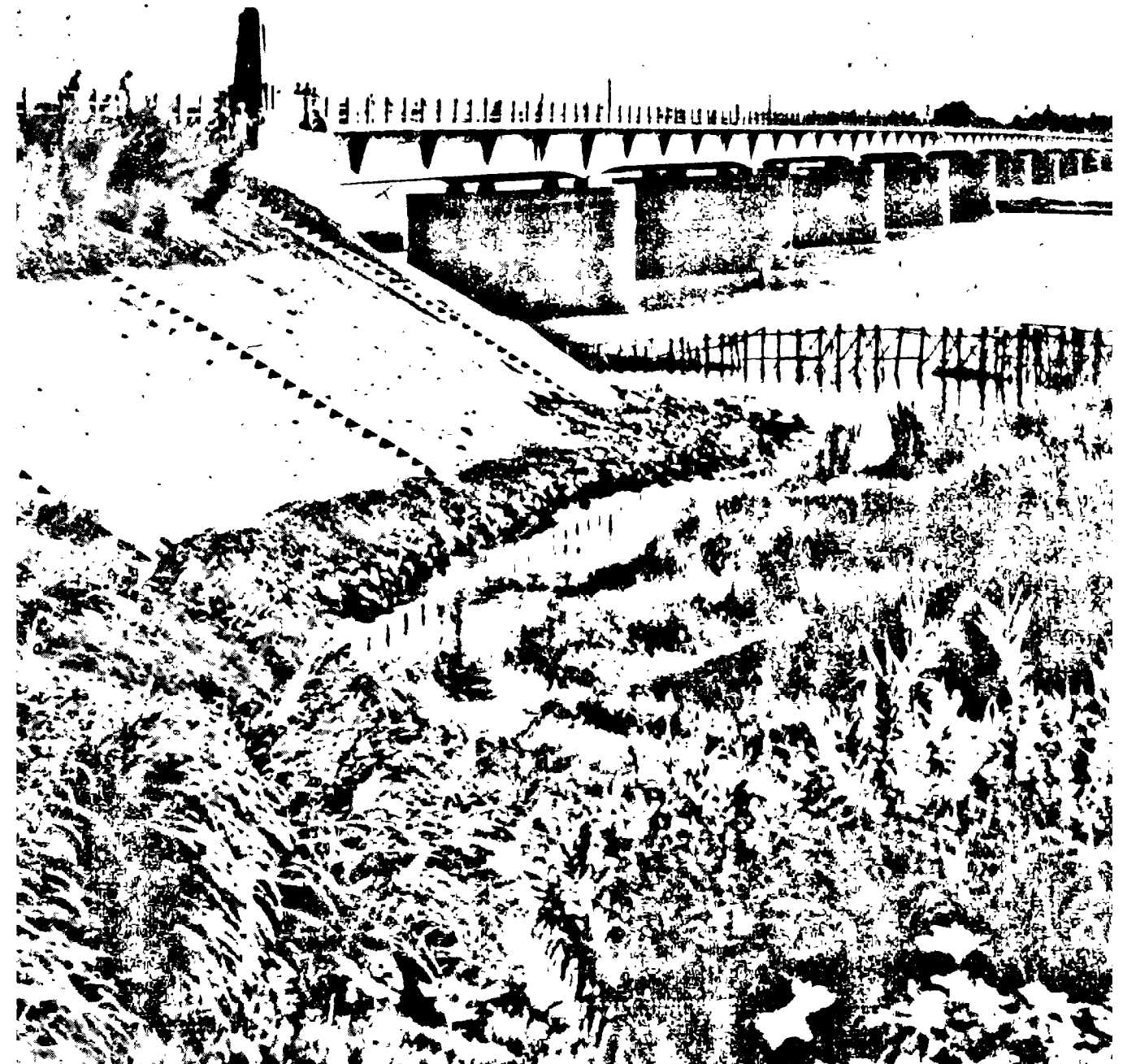
Sri Mahadevan, Deputy Inspector-General of Police, was also decorated by the Governor for meritorious service.

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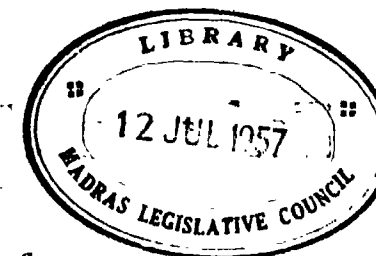
VEGETABLE OILS produced by ghanis or by small producers are exempt from duty and should not, therefore, cost more. Even for vegetable oils from large mills the increase in duty is only 2 nP. per lb. This small increase may very well be absorbed by the trade in view of the 10 to 20 nP. per lb. rise in price during the last year.

If you smoke, please note that you need not pay more on any brand of cigarettes other than those manufactured exclusively from Indian TOBACCO such as "Char Minar" or "Shah-i-Deccan". On these the effect of rise is between $\frac{1}{2}$ to 1 nP. per packet of 10. 100 biris will cost only 1 nP. more. The price of hukka tobacco should not in any case increase by more than 13 nP. per lb.

For your MATCHES, do not pay more than 4 nP. per box of 40 sticks and 6 nP. per box of 60 sticks. This includes reasonable profit for trade as well as increase in duty.

A quire of Ordinary Writing PAPER (8 lb.) should, if at all, cost only $1\frac{1}{2}$ nP. more.

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July 1957

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Front cover page : The Rs. 34.5 lakh Coleroon Bridge declared open in the second week of June. This bridge is one of the longest prestressed concrete bridges in the world.

Last cover page : Tanjore garlands in the making. The making of garlands from paddy, pith lace, sandalwood paste, cloves and cardamom, is a specialised art of Tanjore District.

Enhanced Dearness Allowance to Village Officers

Budget Estimates for 1957-58 Presented to the Legislature

The Budget Estimates for the year 1957-58, were presented to the Madras Legislature by Sri C. Subramaniam, Minister for Finance, on June 29, 1957.

The excerpts from the Minister's speech are—

"The Revised Estimates for 1956-57 anticipated a revenue of Rs 57,08 lakhs,

and an expenditure of Rs. 60,87 lakhs leaving a deficit of Rs. 3,79 lakhs. The Preliminary Actuals of the year are now available and show that our revenues for the year were Rs. 54,85 lakhs and expenditure Rs. 55,34 lakhs leaving a much smaller deficit of Rs. 49 lakhs. An expenditure of Rs. 42 lakhs was met during the year from the Contingency Fund and therefore, the actual deficit should have been Rs. 91 lakhs.

Even so, the revenue position turned out to be much better than our original anticipations. Various inter-departmental adjustments have still to be made and the final position will be known only a few months hence. There has been appreciable short-fall in expenditure under development heads like Agriculture, Industries, Co-operation and National Extension Services owing to the delay

in building up the organization for implementing some of the new schemes, and consequently there has been reduction in departmental receipts expected from the new schemes. Under Capital Expenditure also, there has been a short-fall of about Rs. 3,63 lakhs, the actuals being Rs. 20,52 lakhs against an anticipated outlay of Rs. 24,15 lakhs. These figures will be further modified, as the items now held under suspense heads are entered into the accounts, but the general picture may not be materially altered. Since there were short-falls in expenditure we have drawn Rs. 9 crores less, as loans from the Centre. Even so the year closed with an effective cash balance of Rs. 1,64 lakhs, as against Rs. 51 lakhs only anticipated in the revised budget.

Budget Estimates, 1957-58.

The figures furnished in the interim budget for the year, presented to the old Legislature last December, have now been revised keeping in mind the almost unavoidable lags in execution at the organizational stage of the new schemes in the Plan. The Budget as now framed anticipates a revenue of Rs. 56,49 lakhs on existing taxation and an expenditure of Rs. 61,32 lakhs including Rs. 1,82 lakhs on new schemes to be sanctioned in the course of the year, leaving a deficit of Rs. 4,83 lakhs. The sum of Rs. 42 lakhs which we withdrew from the Contingency Fund last year has to be refunded after the expenditure is voted and has been taken into consideration in reckoning the present deficit.

Financial concessions.

The main cause for this large deficit is the enhancement by Rs. 12 per mensem in the emoluments of non-gazetted officers and other low-paid public servants which we recently sanctioned. The extra cost of these concessions, is about Rs. 4,26 lakhs, but the Central Government has agreed to meet a portion of the cost amounting to Rs. 1,94 lakhs at the rate of Rs. 8 per mensem for those drawing Rs. 60 and less as total emoluments, and at Rs. 4 per mensem for those drawing above Rs. 60 and up to Rs. 100. The Centre does not share the cost of the concessions for those drawing above Rs. 100, but a loan of Rs. 25 lakhs will be available to us this year for that

purpose. We should indeed be grateful to the Union Finance Minister for sponsoring this scheme of Central assistance but for which, we would not have been able to afford this measure or relief to our low-paid employees. Out village officers have not had the benefit of these concessions and there is some unrest among them. The question of reorganizing village establishments to meet present administrative needs, is now under the consideration of the Government, but decisions on this large issue may take time. It is now proposed to enhance the dearness allowance of village establishments by Rs. 7 for karnams, Rs. 5 for headmen, and Rs. 4 for village servants. This concession will take effect from 1st July, and will cost about Rs. 30 lakhs in a full year, and Rs. 20 lakhs in the current year. Other financial concessions to public servants included in the budget are, revision of the scale of pay of upper division clerks in the Ministerial Service to provide for larger increments in the earlier stage, upward revision of the scale of pay of audit clerks and Inspectors in the Local Fund Audit Department, provincialization of service conditions of workers in the Government Estate, enhancement of the pay of night watchmen up to the prevailing market rates, provision of recreation facilities to nursing staff in certain Government hospitals, the supply of warm clothing to village servants on the Hills, and the upgrading of 23 posts of Assistant Surgeons to a Selection Category.

Taxation proposals.

The deficit of Rs. 4,83 lakhs is large and cannot all be left uncovered at any a time, the more so now, with the present upward trend in prices and with a heavy Capital Programme, for which also we are short of resources. The following proposals to increase the existing revenue, are being made:—

(a) The ordinary rate of General Sales Tax was 3 pies in the rupee or 1-9/16 per cent till 31st March 1957. With the introduction of the decimal coinage from the 1st April 1957, this should normally have been rounded to 2 per cent. But the Government have continued the old rate till now, so as to give the matter full consideration. Calculation of sales tax in fractions of the percentage is inconvenient and may give unscrupulous dealers an advantage

over customers in small transactions. It is now proposed to fix the rate at 2 per cent in the case of commodities other than foodgrains and to reduce the rate to 1 per cent in the case of foodgrains (paddy, rice, wheat and millets.). It is also proposed to exempt books from the levy of sales tax. The net effect of these proposals is expected to be an additional revenue of Rs. 170 lakhs in a full year but we may realize only Rs. 125 lakhs in the rest of the current year.

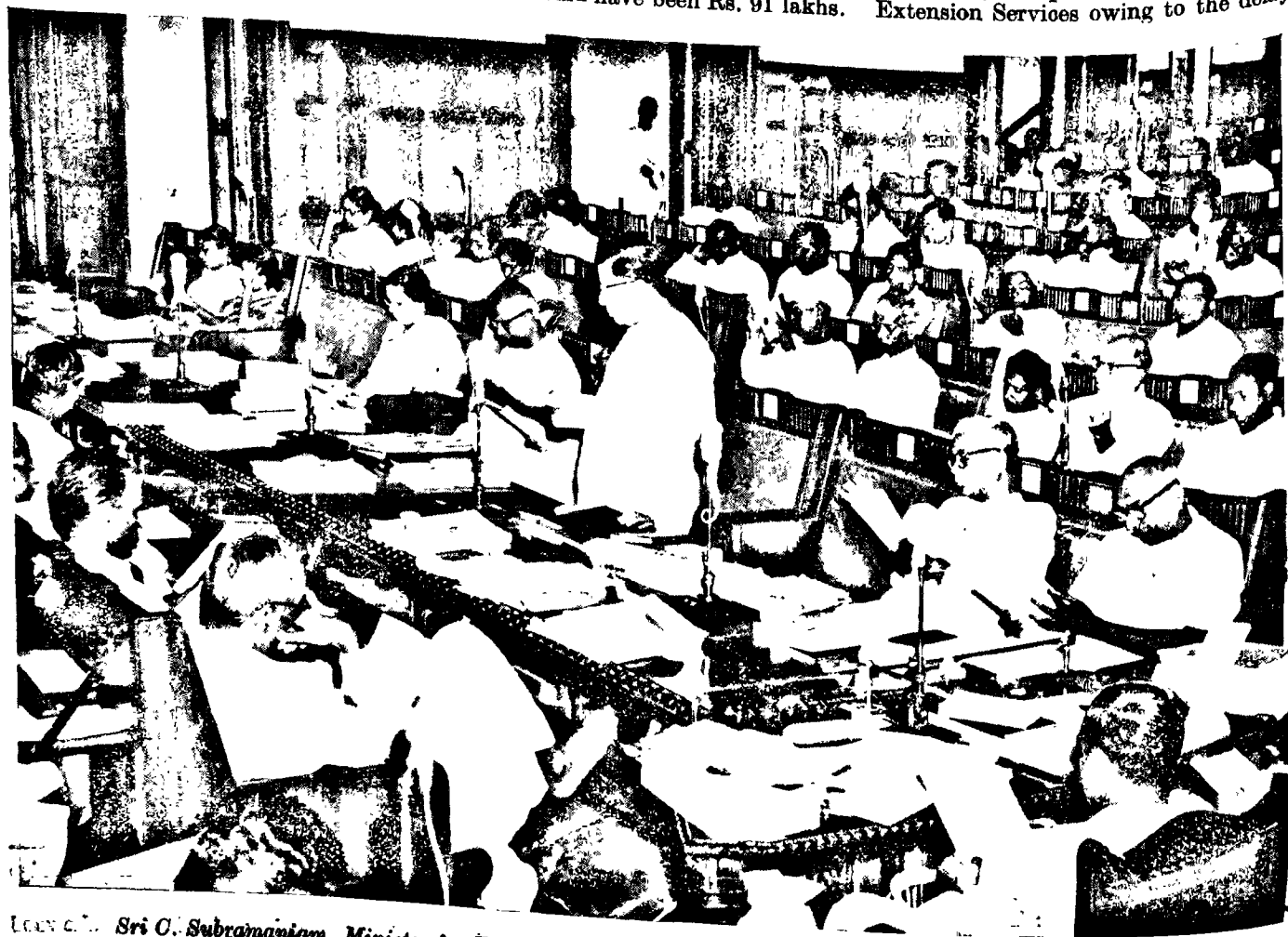
(b) It is proposed to raise the rate of Agricultural Income-tax on owners of plantations as follows:—

Income.	Rate of tax.	
	Present rate	Proposed rate
	PER CENT.	PER CENT.
On the first Rs. 1,500	Nil.	Nil.
On the next Rs. 3,500	5	5
On the next Rs. 5,000	10	15
On the next Rs. 5,000	15	20
On the next Rs. 5,000	20	25
On the next Rs. 5,000	25	30
On the balance of total agricultural income and on the total income of companies.	35	45

It is expected that an additional revenue of Rs. 25 lakhs per annum will accrue from this source.

These two new measures will bring in an additional revenue of Rs. 1,50 lakhs in this year reducing the deficit of Rs. 3,33 lakhs.

The Union Finance Minister has proposed modifications in the rates of income-tax and Excise Duties, and a new surcharge on railway fares and these are now under the consideration of the Parliament. It is anticipated that a total sum of Rs. 15 crores would become available to the State Governments as their share of the proceeds of additional revenue from these sources. If the proposals go through without substantial modifications, this Government should receive about Rs. 125 lakhs as their share. But the Government of India have not yet agreed with this view and seem to think that this sum should go towards the overall Central assistance due to States as already fixed in the Central Budget. We have made re-presentations and pending a final decision on this question, no credit is being taken in the Budget for this item.



Sri C. Subramaniam, Minister for Finance, presenting the Budget Estimates for 1957-58 to the Madras Legislative Assembly on June 29, 1957.

MADRAS BUDGET, 1957-58—ABSTRACT.

(Figures in lakhs of rupees.)

	Accounts, 1955-56.	Revised Estimate, 1956-57.	Preliminary Accounts, 1956-57	Interim Budget Estimate, 1957-58.	Present Budget Estimate, 1957-58.
	RS.	RS.	RS.	RS.	RS.
A. REVENUE AND EXPENDITURE ON REVENUE ACCOUNT.					
(1) Revenue	52,09.48	57,08.05	54,85.51	52,64.63	56,48.63
(2) Expenditure	54,55.81	60,86.97	55,34.31	57,70.84	61,32.19
(3) Deficit	— 2,46.33	— 3,78.92	— 48.80	— 5,06.21	— 4,83.56
(4) Estimated proceeds of additional Taxation measures.	.. .. .	.. .. .	.. .. .	.. .. .	1,50.00
(5) Net Deficit .. .. .	.. .. .	.. .. .	.. .. .	.. .. .	— 3,33.56
B. TRANSACTIONS OUTSIDE THE REVENUE ACCOUNT.					
(1) Receipts—					
(a) Open market loans—less repayments	9,69.57	12,94.65	13,55.11	.. ..	.. ..
(b) Loans from the Government of India, and certain autonomous bodies—less repayments.	8,85.20	19,08.00	10,72.66	— 3,60.00	13,62.00
(c) Overdraft from the Reserve Bank .. ..	.. ..	.. ..	1,70.00	.. ..	.. ..
(d) Deposits, etc., transactions including sale of securities in reserves (net).	3,73.71	— 80.62	— 2,73.96	67.03	2,71.40
Total, Receipts	22,28.48	31,22.03	23,23.81	— 2,92.97	16,33.40
(2) Disbursements—					
(a) Capital expenditure including State Trading Schemes.	12,97.73	27,29.78	20,63.92	26,22.19	23,49.04
(b) Loans to local bodies, etc.—net disbursement ..	4,31.11	8,47.07	7,61.62	3,86.22	3,73.17
(c) Repayment of overdraft from the Reserve Bank.	.. ..	.. ..	.. ..	.. ..	1,70.00
Total, Disbursement	17,28.84	35,76.85	28,25.54	30,08.41	28,92.21
(3) Receipts minus Disbursements	+ 4,99.64	— 4,54.82	— 5,01.73	— 33,01.38	— 12,58.81
C. BALANCES.					
(1) Opening Balance	6,31.18	8,84.49	8,84.49	50.75	3,33.96
(2) Closing Balance	8,84.49	50.75	3,33.96	— 37,56.84	— 12,58.41

Sales Tax on Foodgrains Reduced; Rounded to 2 per cent on the rest

Economy in expenditure

There has been a large expansion in administrative services during the post-war period necessitated indeed, by the mounting tempo of the development programme. The Finance Department does scrutinize proposals for additional staff with extreme care, but it is not unlikely that an officer appointed for a special purpose may be continuing in office, even after the intensity of the special job has abated. In the interests of economy and efficient administration, this tendency has to be checked by a periodic overhaul of the structure of each department. The Government propose to appoint a Special Officer of mature experience and high rank to make an enquiry into the structure and staff requirements of each department both at headquarters and in the districts, and make suitable recommendations. He will also look into the various items of departmental expenditure and contingencies to effect economies wherever possible. He will work under the direction of a Committee of the Cabinet which will pass orders on his recommendations relating to a department, as soon as he submits his report on that department. Some savings are bound to result this way, but it is not possible to make a firm estimate now and hence no credit is being taken in this budget.

The Finance Commission met the representatives of this Government and held discussions with them in March 1957. Some of the points which we urged before the Commission are the large disparities which now exist between the emoluments of State and Central Government servants doing comparable jobs in identical localities and the necessity for a substantial measure of Central aid to reduce the disparities adequately. We have pointed out the limitations of the taxable resources exclusively in the State's sphere, and explained our case for a larger share in the divisible Central Taxes in order to meet our growing needs and commitments on the Plan. We have also pressed for the consolidation of the outstanding loans from the Centre, so as to reduce our debt charges to the level of the

average borrowing rate, taking into consideration the funds now available to the Centre by deficit financing. Let us hope that the Finance Commission will find it possible to accept the general trend of our recommendations and in that hope we may perhaps be justified in leaving the Budget deficit uncovered for the present.

Capital Expenditure

The Capital Expenditure for the year is now estimated at Rs. 23,49 lakhs made up of Rs. 11,62 lakhs on Electricity, Rs. 2,93 lakhs on Irrigation, Rs. 3,67 lakhs on Roads and Buildings, Rs. 1,95 lakhs on Industrial Development and other Works, Rs. 85 lakhs on Public Health, Rs. 1,31 lakhs on State Trading Schemes, and Rs. 1,16 lakhs on other items. A provision of Rs. 20 lakhs has been made mainly for the purchase of new buses for the State Transport and improvement of workshops in Madras City and Kanyakumari district.

Loans and Advances

Under Loans and Advances, the anticipated outlay is Rs. 7,92 lakhs. This sum includes Rs. 2,25 lakhs for advance to cultivators, Rs. 1,57 lakhs for Loans to the Corporation of Madras and other Local Bodies for various purposes including Water-supply and Drainage Schemes, Rs. 1,38 lakhs for Loans for the National Extension Service and Community Development Project areas, Rs. 40 lakhs for short-term loans to the Madras Industrial Investment Corporation, Rs. 30 lakhs to Weavers' Co-operative Societies in pursuance of the schemes financed from the Handloom Cess Fund and Rs. 41 lakhs for State-Aid to Industries. Recoveries during the year are expected to amount to Rs. 4,19 lakhs leaving a net outlay of Rs. 3,73 lakhs.

Ways and Means.

Our requirements for Ways and Means during this year will be about Rs. 35,63 lakhs, made up of—

	RS. (LAKHS.)
Capital expenditure	23,49
Loans and advances—Net disbursement	3,73

	RS. (LAKHS.)
Repayment of overdrafts from the Reserve Bank, outstanding at the beginning of the year	1,70
Repayment of loans taken from the Central Government and certain autonomous bodies	2,88
Revenue deficit to be covered. Balance to be kept in the Reserve Bank of India and Treasuries	3,33
Total	35,63

As against these requirements, the resources now in sight amount only to about Rs. 22,55 lakhs as shown below :—

	RS. (LAKHS.)
Opening cash balance	3,34
Net receipts under Deposit, Remittance, etc., transactions	2,71
Loans (anticipated) from the Government of India on schemes eligible for Central Assistance	16,50
Total	22,55

Thus there is an uncovered gap of over Rs. 13 crores on the Ways and Means side. If as a result of the recommendations of the Finance Commission, our revenue resources are augmented as anticipated, this gap will be reduced, but even so, it will be of the order of Rs. 10 crores. Last year, we were able to raise an open market loan of nearly Rs. 14 crores, but extremely stringent conditions obtain in the money market at present. The Government of India have advised rather strongly, that the State Governments should not float any public loan during the current year. Taking all circumstances into consideration, the Government have taken the decision that no public loan should be raised this year. We may be able to augment our resources to some extent

Special Officer to Suggest Economy and Efficient Administration

by setting up an organization and intensifying the drive for Small Savings, but this would not go very far to cover the Ways and Means gap of this year. We must necessarily depend on further assistance from the Centre, but there is no assurance yet on that. Hon'ble Members should therefore note that there is an element of uncertainty regarding the Capital Programme, but, for the present, let us proceed ahead in the hope that we can resolve difficulties as and when they arise.

Plan Provision.

The outlay on the Plan in the budget as now finalized, is about Rs. 32 crores, which sum is the ceiling prescribed by the Planning Commission for the year. Last year, we had programmed more ambitiously but actual accomplishments were less. Final figures are not yet available but the total may be of the order of Rs. 29 crores. Broad details are given in an Appendix to this Volume. There were short-falls in many departments, partly due to scarcity of cement, steel and foreign exchange, which conditions developed during the course of the year, and also due to our inability to set up in time the organization necessary for implementing some of the new schemes. Conditions this year are distinctly less favourable. On present indications, the foreign exchange position is likely to get more difficult during the course of the year, since a heavy programme for the import of capital goods is still pending. As the situation unfolds itself, we may even have to accept the postponement of some of the works of a lower priority involving foreign exchange. The present upward trend in prices of foodgrains and other consumer goods, is a warning that the further scope for raising resources through deficit financing, is strictly limited. But we are all agreed that the present Plan is the least that we should aim at, towards improving living standards and therefore, we should do our utmost to sustain it. We should step up agricultural production taking advantage of the further measures of intensive cultivation initiated during the year. Fortunately the south-west monsoon has set

in time and the season promises to be fair, the Mettur Reservoir being already full. We must maintain an industrial truce, the management and the workers co-operating wholeheartedly and ensure the maximum output on the capital invested. These are sure means within our control to arrest the rise in prices and prevent the further drain of foreign exchange on the import of foodgrains and essential consumer goods. We must also maximise internal resources for the Plan by a well-integrated scheme of Small Savings. Our Public borrowings were hitherto restricted to the industrial and commercial sectors and to a limited extent, to the more substantial agriculturists. These are the people who usually put their savings in banks and therefore, the money is already in circulation and available for productive purposes. The increase in agricultural prices and industrial production, has put in new money in the hands of smaller agriculturists and wage earners in industry. We have to build up a proper organization to carry the message of the Plan to these people and to induce them to save a small portion of their earnings. In an expanding economy with a wide dispersal of incomes, this is the one sure way of materially augmenting capital resources. All these would mean further sacrifice and sustained effort, but without them it may not be possible to implement the whole Plan. Let us therefore explain the position to the people frankly and confidently, and I have no doubt that they will rise to the occasion.

The Lower Bhavani Project has been completed, and only small items of work remain on the Manimuthar and Mettur Canals. The Amaravathi, Krishnagiri and Sathanur reservoirs are nearing completion and some water can be stored in them even during this season. It is proposed to let down these storages for irrigation on the 15th of August from the Krishnagiri reservoir, on the 15th September from the Amaravathi reservoir and on the 2nd October from the Sathanur reservoir.

"A new development in the rural sector is the Gramdhan movement initiated by Vinobhaji and there has been very considerable response in the southern districts more particularly in Madurai. The question of evolving a pattern on the co-operative model for the settlement and development of these villages is now engaging the attention of the Government. In the meanwhile, a provision of Rs. 20 lakhs has been made in the Budget for giving loans to agriculturists in these villages for the intensive cultivation of the Gramdhan lands."

"A sum of Rs. 20 lakhs has been set apart towards slum clearance in the City of Madras. The accumulation in the Madras Cyclone Relief Fund, 1955, amounting to about Rs. 20 lakhs will be spent on a scheme of rural housing in the cyclone-affected districts of Ramanathapuram, Madurai, Tiruchirappalli and Tanjore."

"I should refer in this connection to the provision of Rs. 10 lakhs for the supply of mid-day meals to poor children in primary schools."

"With the increasing tempo of rural development work, the question whether our revenue districts are far too unwieldy in size for efficient administration, has come up for consideration. But there is considerable volume of tradition and history attached to the present configurations and there may be a good deal of local sentiment against the dismemberment of the present districts. A Committee of the Cabinet is now considering this question and would welcome the suggestions of Hon'ble Members. In the meanwhile, it has been decided to keep the Kanyakumari area as a separate district and to detach the Nanguneri taluk from the Tirunelveli district and add it on to the Kanyakumari district forthwith, so as to even out the workload of the District Officers of the two districts."

Co-operative Effort

To Consolidate

Handloom Industry

By Sri A. PALANIAPPA MUDALIAR, I.A.S., Registrar of Co-operative Societies, Madras.

The glories and shortcomings of the Handloom Industry and the role of co-operation to consolidate it are presented in this article. Does the Handloom Industry deserve the attention given to it? Have the public any duty towards it? The author answers these questions and explains in detail the inherent strength of this ancient Industry to survive, as it has survived—through centuries.

Appropriately enough, an All-India Handloom Week is being celebrated throughout the length and breadth of the country every year for focussing the attention of the public and the Handloom Weavers on the importance of the industry. This year too the fourth All-India Handloom Week was celebrated on an elaborate scale befitting not only the importance of the industry but also the occasion. The rightful place of the industry in the economy of the country has been recognised by the Central and State Governments. It has been estimated that roughly about 2.8 millions of handlooms are in the country and that 14 million people eke out their livelihood through this industry.

As in the case of several other industries, the handloom industry also suffered periodical crises. The Second World War no doubt, gave a fillip to the Industry, especially as the weaving mills diverted their attention to meet the demands arising out of war. The handloom industry went into the doldrums as soon as the mills, released from their war commitments, reasserted themselves on the domestic

front more intensely. The foreign markets for the Indian handloom goods were almost shut out as the respective countries moved by a surge of nationalism, geared themselves to the task of national reconstruction and concerted several measures for fostering their own national industries. These and other causes seriously upset the industry and what was once a flourishing industry became the despair of the millions of weavers engaged in it.

Consolidation since 1952.

The measures adopted till the year 1952 to rescue the weavers from the slumps that overtook the handloom industry were only palliative and could provide no lasting cure to the ills that beset the industry. The Government of India realised that the industry had to be tackled firmly in all its aspects not only because it provided gainful employment to millions of our countrymen but because of its potentialities as a big producer of cloth meeting no less than one-fourth of the cloth requirements of the country. Besides it is a premier cottage industry of

India, as ancient as agriculture and in importance next only to it. The Government of India therefore constituted a Cess Fund to assist the States to formulate a large number of handloom developmental schemes. The various State Governments are taking steps to consolidate the industry on a stable basis. The Madras State has achieved good progress in implementing a large number of schemes touching the several aspects of the handloom industry, technical, organisational, socio-economic, etc., through the medium of co-operatives. In the Madras State, out of 5.32 crores allotted during the past four years by the Government of India, more than Rs. 4.87 crores, have been spent. There are now 1.75 lakhs of Handloom Weavers within the co-operative fold representing nearly 34 per cent of the weavers in the State. A large number of them have been freed from working under master weavers and enabled to enjoy the fruits of co-operative effort. More than 17 lakhs of rupees have been advanced to them as interest-free loans to pay their share capital and become members of the

Glories and Shortcomings

co-operatives. Two hundred and thirty-five lakhs of rupees have been disbursed to the Madras Co-operative Bank to provide production finance to weavers co-operatives and marketing finance to the Madras State Handloom Weavers Co-operative Society, so that production could be stimulated and marketing promoted.

On account of these schemes, the number of weavers co-operative societies has risen from 566 on January 1, 1957 to about 900 societies now. The paid up share capital of weavers co-operative societies rose from 64.15 lakhs to Rs. 72.12 lakhs. Production of handloom cloth in weavers co-operatives increased from Rs. 202.92 lakhs during 1953-54 to Rs. 646.70 lakhs during 1955-56.

To stimulate consumption.

A large number of measures have also been initiated to stimulate consumption of handloom cloth. Among these may be mentioned the supply of improved appliances to tone up the quality of production.

The Madras State Handloom Weavers Co-operative Society has opened more than 300 emporia and selling depots within the Madras State and outside as also five foreign units so that its marketing organisation may tap more intensively, markets for the handloom cloth produced by its affiliated primary weavers co-operative societies.

Six mobile vans have been purchased by the Madras State Handloom Weavers Co-operative Society and placed on the road for doing publicity and conducting sales promotion.

The most important measure taken to step up the sales of handloom cloth is the grant of subsidy to weavers co-operative societies to recoup rebate allowed by them on their sales at Re. 0-1-6 per rupee. This rebate is now allowed by weavers co-operative societies on retail and wholesale sales of handloom cloth. Besides consumer co-operative societies have also been encouraged to deal in handloom cloth by being allowed subsidies to recoup

the rebate allowed by them on sales of handloom cloth. On special occasions like Deepavali and Handloom weeks an enhanced rebate of two annas per rupee has been permitted on sales of handloom cloth. Under this scheme, more than 170 lakhs of rupees have been disbursed to recoup the rebate allowed on sales of handloom cloth. The measures taken to stimulate consumption of cloth have considerably improved sales. The sales which amounted to Rs. 308.30 lakhs in 1953-54 increased to Rs. 589.22 lakhs during 1955-56.

Housing Colonies for Weavers.

Six housing colonies for the benefit of weavers who are members of weavers co-operative societies have been sanctioned by the Government of India and are under various stages of implementation. Seven hundred and twenty-eight houses at a cost of about Rs. 30 lakhs will be built in the course of this year.

Several silk weavers co-operative societies for the benefit of silk handloom weavers have been started in various places such as Kumbakonam, Tirubhuvanam, Kancheepuram, Salem, Mannambhuchavadi and Arani, etc., with assistance from the Cess Fund. About 1,000 silk handloom weavers are benefited on account of these schemes.

Art silk handloom weavers have also not been neglected and Government have approved a scheme for the enlistment of 1,100 art silk handloom weavers as members of weavers co-operatives.

The schemes under implementation are paving the way for the consolidation of the industry and bringing it back to a prominent place in the industrial map of India.

Proposals in Second Plan.

The Second Five-Year Plan too contains quite a number of schemes

intended further to stabilise the industry. At the end of the plan period it is expected that four crores of rupees would have been spent in the execution of the handloom developmental schemes. More than 50 per cent of the handlooms in the State would have been enrolled in the co-operatives. About 2,000 houses would have been built for providing well-ventilated houses for 2,000 families of weavers. Ten Industrial Co-operatives would have been started for the benefit of at least 1,000 weavers who had no looms of their own or who were thrown out of employment. One thousand and six hundred weavers would be given training in improved methods of weaving and the State Handloom Weavers' Society would have opened 50 more depots for selling handloom cloth in places where they are most needed.

Does the industry deserve the attention given to it? Have the public any duty towards it? What are its

Of Handloom Industry

glories and shortcomings? I shall attempt to answer these questions here. The Fact-finding Committee has rightly concluded that this ancient industry will survive, as it has survived through centuries, in spite of the various stresses and strains to which it is subjected periodically. Gandhiji desired that this industry should be supported by our countrymen. The industry has many glories and advantages to its credit. It has also of course its shortcomings. I shall describe them briefly.

Inherent strength of the Industry.

The age of the industry is its first glory. It dates back to Vedic times. Even people not ordinarily touched by a sentiment have realised that this is not a dead industry but has been nourished and fostered through centuries by craftsmen sensitive to rhythm and colour line and curve, size and shape. It is a hereditary profession handed over from generation to generation

in a good and improved condition. Every member of a weavers' family knows the rudiments of weaving, the various processes leading to weaving and the accessories that constitute the weaving equipment. There is also no question of there being only one bread winner in the family. There may be one chief bread winner but every one of the family contributes to the family earning by warping, by sizing by weaving or pirn winding, etc. In most of the villages weaving is a part time occupation for several people. During the off season of agriculture and spare time during cultivation seasons, many of the agriculturists who know weaving supplemented their income by plying the loom.

Weaving industry is carried on on a cottage industrial basis. Each weaver's hut or house is a works spot wherein all processes could be attended to. The space required is not large and special costly arrangements are not necessary for making a room fit for weaving work. Weaving can be done in all parts of the day.

The equipment which a weaver uses is simple and cheap. It can also be repaired or replaced without much

cost. The accessories used in weaving are easy to handle and simple of operation. They could be easily manufactured with the resources and materials available in the country.

It has been said that the nation's culture is enshrined in its handicrafts and cottage industries. This saying is true in respect of the handloom industry. Each weaver is a craftsman by tradition and knows the right type of design and colour to be introduced in his products. He is therefore capable of weaving such textures and designs, as would satisfy the most fastidious consumer. In this respect he easily scores a point over the mills. While the mills are capable of only mass production set to certain patterns, the weaver will be able to produce fabrics, each fabric being different from the other and each in its own way good and artistic.

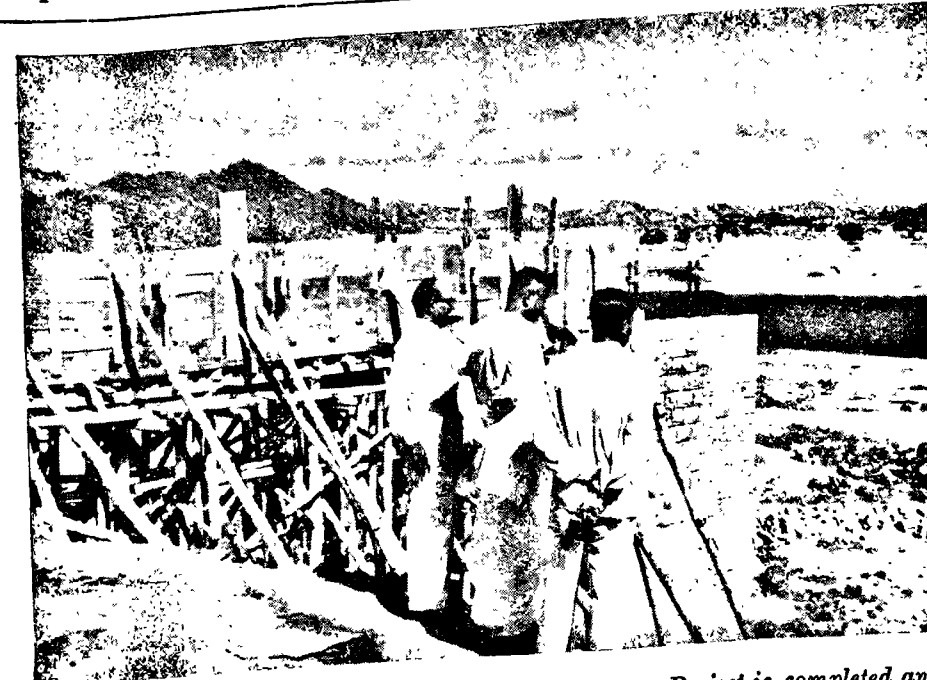
The fabrics produced by the weavers are essentially those required for every day use by the people. It is not a luxury article for which there may be demand only from some sections of the people. If the people develop a taste for handloom cloth the market for Indian Handloom goods will be vast and unlimited.

As a cottage industry dispersed in lakhs of homes and scattered throughout the country, its effective contribution to the nation's economy cannot be crippled or reduced even in times of war.

The most important characteristic of the industry is its capacity to provide gainful employment to over 28 lakhs of families. In the steps taken for the provisions of employment opportunities to the people of India, the fostering of the handloom industry should get a top place. Otherwise, it will strain the nation's effort to reduce the quantum of unemployment in the country. From this aspect alone, if not for any other reason, the handloom industry deserves the patronage of the people.

Points of weakness in the industry.

The handloom industry suffers also from certain handicaps. Being an industry carried on mainly with human efforts, its capacity and efficiency are limited by the extent of human association with it. It cannot aspire to be perfect like a machine run industry nor can it boast of a streamlined uniformity and symmetry which characterise mechanised industry. The texture may not always be flawless and the constructional particulars may not always be uniform. The degree of dyeing and the colour pattern may not conform to a rigid standard. But as far as possible, steps are being taken to bring the pattern of production to certain standards which could ensure a degree of perfection. As against the shortcomings referred to, the advantages arising from the consolidation of the handloom industry are several. The industry deserves all our support. To the extent we support the industry we will be able to solve the unemployment problem in the country and help to improve the socio-economic condition of a large section of our community. Government have realised the significance of the industry and are determined to render all facilities in their power to stabilise the industry. The handloom weaver on his part will do well to realise that public support for the industry can be sustained only if he maintains and improves the quality of his production.



About 90 per cent of the work of Krishnagiri Reservoir Project is completed and water will be soon let out to irrigate large tracts of virgin lands in Salem district. Sri P. Kakkan, Minister for Works paid a visit to the Dam site recently.

Rs. 34.5 lakh Coleroon Bridge Opened

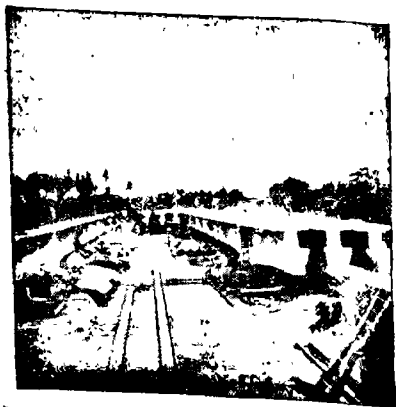
One of the Longest Prestressed Concrete Bridges in the World

The prestressed concrete bridge built across the river Coleroon is one of the longest in the world. This bridge, which is a vital link between Tanjore and South Arcot districts, is believed to be the second bridge in the whole world to adopt the method of launching massive beams in position by a steel launching girder specially designed for this work.

The scheme was sanctioned by the State Government in 1948 and Rs. 34.5 lakhs went into cost of construction. Tanjore and South Arcot District Boards contributed Rs. 8 lakhs and Rs. 4 lakhs respectively.

The bridge was declared open by Chief Minister Sri K. Kamaraj in the presence of a large gathering. Sri P. Kakkan, Minister for Works, presided and Sri K. K. Nambiar, Chief Engineer (Highways), welcomed those who were present.

That this crossing of the river Coleroon had acquired importance even more than a century ago is evident from the fact that a bridge of 42 spans of 50 feet each had been built at the site as far back as 1853. By the standards of those days it must have been a marvellous achievement and it served for half a century before it was destroyed in the great flood of 1903. The structure appears to have been perfectly sound, but it was handi-



Launching of beams.

capped by insufficiency of freeboard, and disaster overtook when one of the spans near the south bank was hit by a huge Arasu tree uprooted and floated down by the flood.

Since then proposals for bridging the river had been under consideration by the Government, and with the inclusion of the project in the Vipan's Scheme of Road Development, a causeway was sanctioned in 1943; but owing to the exigencies of war, the work could not be taken up for execution. Eventually, the persistent agitation of the public of the two districts for a pucca bridge instead of a causeway began to tell, and when the District Boards of South Arcot and Tanjore came forward with generous contribution of Rs. 4 and 8 lakhs respectively, the Government sanctioned the construction of a Bridge in 1948 under P.W.R.D. works.

The site of the bridge is 135 feet upstream of the old Arch Bridge and 1,115 feet upstream of the existing Railway Bridge, and like the latter, consists of 14 spans each 150 feet clear providing for a maximum flood discharge of 270,000 cusecs.

The piers and abutments were originally proposed to be taken down into hard compact clay some 85 to 100 feet below low water level, but were finally rested at a depth of about 60 feet on a layer of sand overlying compact clay, thereby effecting a saving of more than Rs. 1 lakh in the cost of foundation, and eliminating all the hazards and uncertainties inherent in sinking through deep clay.

The series of tests which made this possible is a special feature of the bridge and, unique in the history of deep foundations.

Usually, in order to perform load tests on the foundation soil under a bridge, the foundation well is first plugged, and then loaded with a huge quantity of kentledge. In this case,

the kentledge would have amounted to as much as 810 tons. If the foundation soil stood the test successfully, and further sinking was not indicated, work on the substructure could be proceeded with. On the other hand, if the test results were not satisfactory, the plugging had to be removed by blasting, which may even damage the well steining, and sinking operations resumed. The whole procedure used to be cumbersome, expensive and time consuming.

At Coleroon the Highways evolved an altogether new approach to the problem. This consisted of testing the soil at the bottom of the well shaft by loading a small bearing plate connected to a loading platform near the top of the well through a star-chion and measuring the settlement of the plate for increments of load and time. The entire equipment was designed and built by the department in its workshop at Guindy. By interpreting the test results taking into consideration the soil characteristics to a certain depth below the well it was possible to predict with a reasonable accuracy the future behaviour of the soils under full load.

Subsequently, this method has been successfully used for the interpretation of foundation characteristics in a number of difficult cases.

The Superstructure.

The superstructure of this bridge is of the single cantilever type and is of prestressed concrete employing the Freyssinet system of anchorage. Each span except the 14th has a cantilever arm of 32 feet which supports the next span. Thus, even though all the piers are spaced at 159 feet centres, there are in the superstructure beams of three different lengths. Typical beams, i.e., those in the spans 2 to 13 are 159 feet long and the longest beams are in the first span with a total length of 191 feet. Actually, these are the longest prestressed concrete beams so far made in India and as yet there are only a few

bridges in the whole world employing such long spans in prestressed concrete.

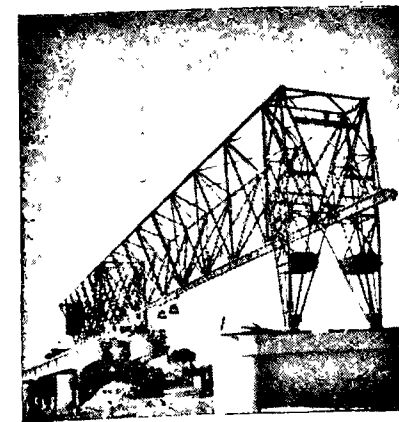
The superstructure is designed to carry, I.R.C. class "AA" loading which means a giant 70 tons tank in battle order, compared to which our heaviest trucks are mere fleas. The bridge has a clear roadway of 22 feet with 5 feet wide cantilever footpaths on either side.

In the process of construction the beams were precast and prestressed in a specially laid out casting yard in the northern bank and launched in position by a steel launching girder specially designed for this work. Coleroon is probably the second bridge in the whole world to adopt this method of launching massive beams on such a scale, the first being the Joazeiro bridge of Brazil with beams of 147 feet as against 159 feet of Coleroon.

The launching girder, 266 feet long and weighing 58 tons was fabricated at Madras and assembled at site. The moving parts—the travelling crabs—were imported from Germany. The prestressed concrete beams weighing 100 tons each were rolled forward to the launching girder by transport cars moving on rail tracks laid on the launched spans, and thence to their final position by travelling crabs crawling along the monorail of the launching girder.

The main advantage of this method of construction is that the work need not be stopped because of floods in the river. It made possible for work to go on without any kind of temporary staging or support from the riverbed and without interruption during the floods of 1955 and 1956.

After all the beams were thus launched and seated in their position



The launching girder which transferred the beams to position.

the cross beams and the gaps between the beams were concreted and prestressed transversely to form the decking. For the first time in India we have here a transversely prestressed reinforced concrete decking still in favour even where the main beams are prestressed.

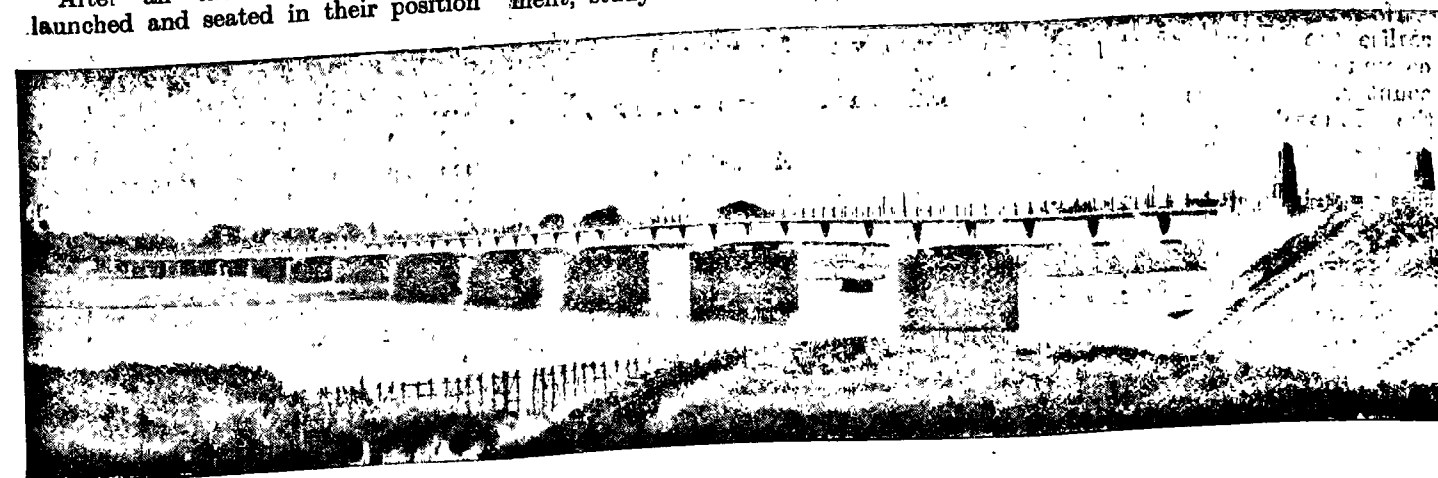
Yet another distinctive feature of this bridge is the adoption of one of the highest working stresses ever used for field produced prestressed concrete in the design of this bridge. In India, the most common value is 1,500 lb. per square inch and even in France, the country where prestressed concrete originated, the maximum is in the vicinity of 1,800 lb. per square inch. For Coleroon Bridge a working stress of 2,500 lb. per square inch has been adopted. This is more than three times the value of working stress in conventional reinforced concrete, and it implies that concrete here must be consistently stronger than reinforced concrete in at least the same proportion. This has entailed upon the departmental staff a vast amount of experiment, study and analysis to design a

workable concrete mix that could produce the desired crushing strength economically. The Department have succeeded so well in their efforts in this direction that they have been producing controlled concrete with crushing strength averaging more than 8,000 lb. per square inch for the beams.

To recapitulate the special features of the bridge, we have adopted a system of beams with cantilever arms whereby the moments due to loads are most favourably distributed. Prestressing have been not only for the main beams but also for the decking slab as well. These, coupled with the emphasis on the use of very high grade concrete, have resulted in a degree of economy in the use of critical materials which is rare even in the field of prestressed concrete for we have been able to save 84 per cent of steel and 18.5 per cent of cement as compared with a conventional reinforced concrete structure.

All considered, Coleroon Bridge has been a veritable proving ground for many interesting aspects of bridge design and construction. Already the lessons learnt here have begun to bring in valuable dividends in other bridges, notably the Cauvery Bridge near Tiruchirappalli where we expect to cut the cost by more than 7 lakhs of rupees by adopting prestressed concrete. When the giant Pamban Bridge Project is taken up, it is reasonable to expect even more spectacular results.

STUP of Paris, patentees of the Freyssinet system designed the superstructure and rendered expert advice. Krupps of Germany helped with the design of the launching girder. Sri K. Veeraswamy Naidu was the contractor for the construction. work.



A Vital Link from Cape to Tuticorin

Mukkani Bridge Across Tambaraparani

A submersible bridge constructed at a cost of Rs. 9.6 lakhs across the Tambaraparani river near Mukkani on Tuticorin-Tiruchendur road in Tirunelveli district was declared open by Chief Minister Sri K. Kamaraj in the first week of June. The bridge will in the long run form an integral part of a great East Coast Road from Calcutta to Cape Comorin.

The opening of the Mukkani bridge is a long awaited and memorable occasion for the people around these parts, especially for the salt manufacturers and traders in fish and palmyrah industry. Putting up bridges across troublesome rivers like this, eliminates missing links in the communication system of the country, and enables transport of men and goods with speed, comfort and safety. There were several such crossings in our road system and year after year a number of them are being provided with bridges or causeways according to a pre-arranged plan. We have achieved a good deal in this direction during the first Five-Year Plan. The Second Plan which is already underway also envisages the construction of several high level bridges, causeways and submersible bridges to make our road system more efficient.

Now-a-days people have begun to realise the importance of good road communication in the economy of a country. It touches every aspect of the National life. It is of utmost importance in planning building and locating the major industries. Hence it is very necessary that major highways should be brought to the highest serviceability by bridging all the unbridged crossings and providing superior surfacings.

Consistent with this, after many years of sustained work, a direct

coastal link from Tuticorin to Cape Comorin via Tiruchendur is now made available for use. From Tuticorin to this place the road had been formed of stabilised soil, a new technique in road building. Mukkani has now been connected with Tiruchendur and Kulasekarapattinam. A road formation has recently been completed connecting Kulasekarapattinam with Cape Comorin including a major bridge across the Karamanar near Manapad which was recently declared open for traffic. There is also a scheme already on hand to form a coastal road connecting Tuticorin to Nagapattinam via Ramnathapuram. The following are some of the works sanctioned already to form part of this coastal road:—

1. Forming and metalling Anjagramam Ovari temple including minor culverts, 25 miles—Rs. 3 lakhs.
2. Forming a road from Kuttam to Manapad via Perialthalai—Rs. 0.7 lakhs.
3. Forming a road from Taruvai-kulam to Surangudi via Veppalodai Kallurni and Melmandai 21 miles, including bridges and culverts, etc.—Rs. 15 lakhs.
4. Improving the road from Ramnathapuram-Mandapam road (N.H. 49) to District limits to meet road in (1) above via. Utharakozamangai Sikkal Sayaljudi, 42 miles, including metalling bridges and culverts—Rs. 13.78 lakhs.

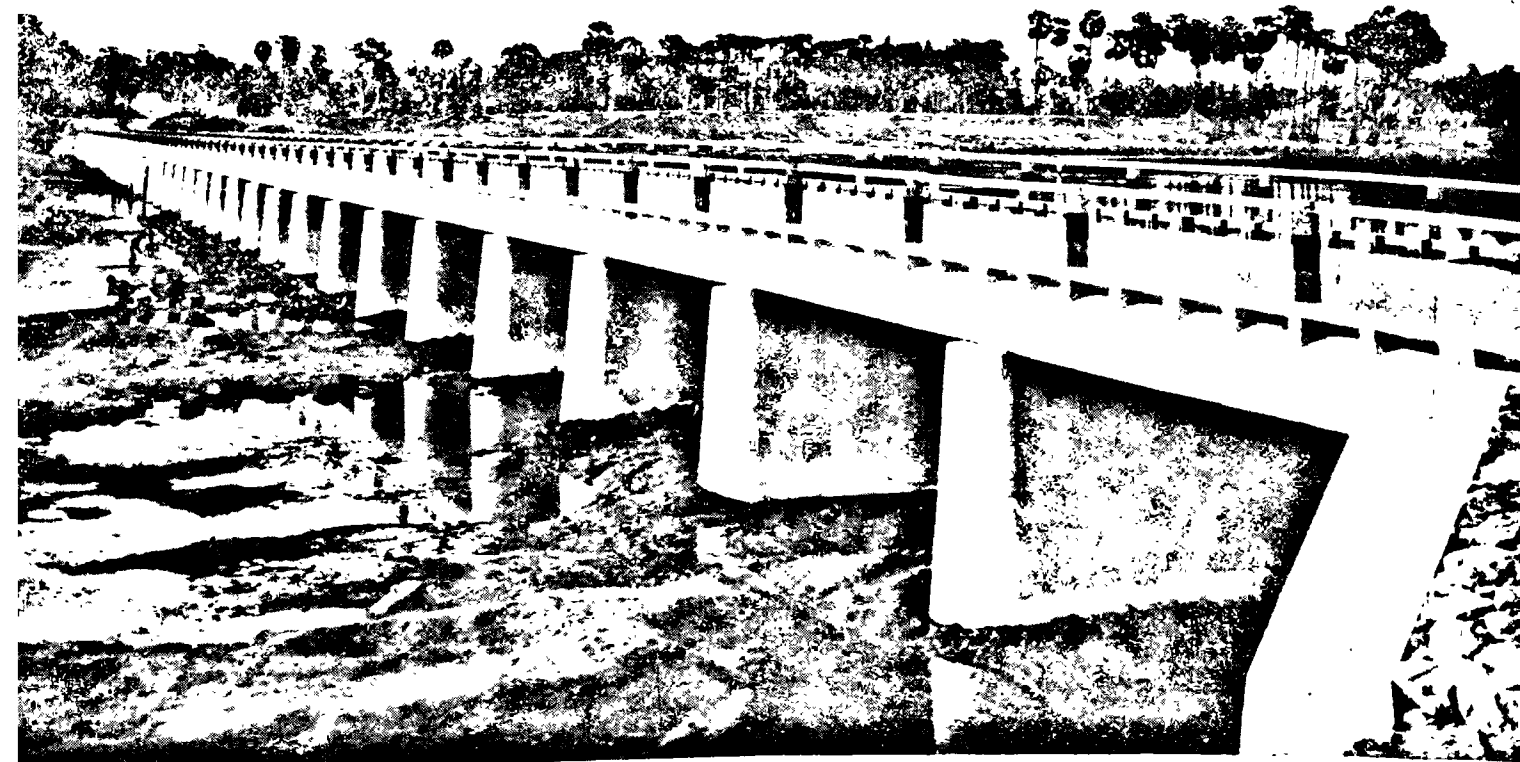
A great link.

Thus this bridge will form an integral part, in the long run of a great East Coast Road from Calcutta to Cape Comorin. This will easily vie with the Bombay-Cape Comorin Road running along the West Coast both in industrial and utilitarian point of view. The East Coast Road runs along places of

moderate climatic conditions and thus will throw open a number of health resorts. The chank and pearl fishing industry, the fisheries, the salt industry, the Palmyrah products and palm gur industry on this coast are all depending only on an all weather communication system. A fresh impetus is now being given to such kind of cottage industries which form the back bone of the economy of these parts. Tuticorin is already a major Port on the East Coast and is bound to attain greater importance after the completion of the Sethu Samudram Project. Tiruchendur and Cape Comorin are great pilgrim centres, as you all know. This road will also be of strategic importance in times of emergency. May be some day, this will also form a part of the National Highway System of our country.

This bridge which is of the submersible type is very near the mouth of the Tambaraparani river wherein large floods are not expected in future after the completion of the Manmathar Dam. Hence a high level bridge was considered unnecessary in spite of the fact that this is on a very important road.

The people of these parts have been looking forward to a bridge at this place, as there used to be obstruction right through the year due to the presence of water in the river at this end. The distance to Tuticorin for the people south of this river was about 40 miles by road and 70 miles by rail, while the bridge would reduce it to 14 miles. Hence, realising the urgent necessity for the bridge, the Government, as a special case, sanctioned the work permitting the District Board to utilise for the same a sum not exceeding Rs. 7 lakhs out of the sale proceeds of the Tirunelveli-Tiruchendur Railway



A view of the Mukkani Bridge declared open by Chief Minister Sri K. Kamaraj in the first week of June. This submersible bridge across Tambaraparani was financed by Tirunelveli District Board.

line, standing to its credit. The District Board was also permitted to recoup the expenditure by levy of tolls. Half way through the construction of this bridge, the District Board requested the Government to include this work in the Central Road Fund Scheme as in the case of such major bridges, by the Government could not include this work in view of the limited allocations of the Central Road Fund to our State.

The Government have permitted the District Board to levy tolls and recoup the money spent on the work. This system of financing large projects is adopted very widely in Western countries. In this way, it will be possible to take up large scale vital improvements by raising loans which will be repaid gradually by the user of the improvements in the form of tolls and it is also just that the user pays for the improvements instead of placing the burden on the general tax payer.

Technical features.

The bridge is 1,569 feet long, including the non-vented portion. The

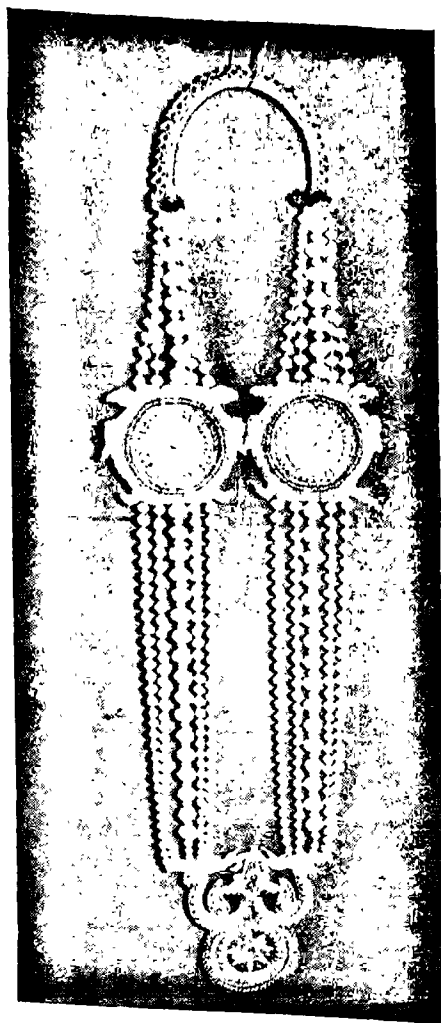
vented portion consists of 38 vents of 20 feet each spanned by reinforced concrete slab designed to carry a military tank weighing 70 tons. The foundations have been taken through circular wells 10 feet external diameter to depths varying from 14 feet to 36 feet. The piers, abutments and body walls are of Cement Concrete. The width of roadway is 22 feet clear. The cost of the complete structure is about 9.6 lakhs, as against the estimated cost of Rs. 7.7 lakhs. The increase in cost is mainly due to deeper foundations having to be adopted than envisaged at the time of preparing the estimate. About 202 tons of steel and 1,900 tons of cement have gone into this work. One cannot fail to appreciate the graceful lines of this structure which harmoniously fits into the landscape of this place.

Progress of Electricity Schemes

Sixty-four villages were electrified during April 1957 in the State. The

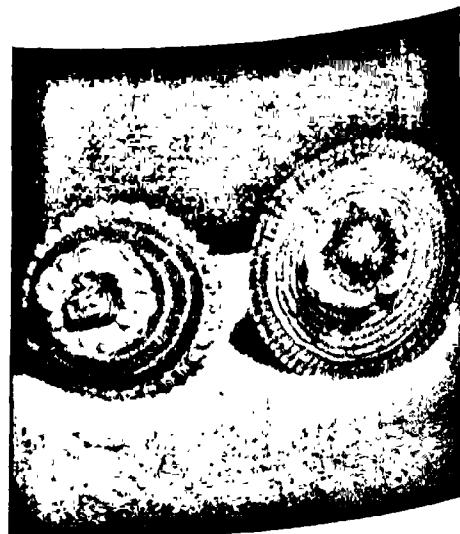
progress of the electricity projects may be briefly stated as follows:—

Concrete lining of the irrigation and power tunnels in the Periyar Hydro-electric Scheme was continued. The progress of work in the latter was as much as 80 per cent. The entire lot of penstock pipes had been received from Japan and erection was continued. The daily average on the muster roll of this project numbered 5,400. In the Kundah Hydel Scheme, excavation for the foundation of Emerald and Avalanche dams was in progress while investigation at Upper Bhavani dam site was taken up during the month. In the Madras Plant Extension Scheme, the foundation slab work was nearing completion. Erection of cooling tower and third stage boilers was proceeding apace. The four electricity systems of the State generated 102.881 Million units of electricity in April. Of the 4,045 new services connected in April, 1,321 were for agricultural, 2,531 for domestic, 108 for industrial and 85 for street lighting purposes.



Artistic Handicrafts of Tanjore

By SRI S. VENKATASWAMY, District Publicity Officer, Tanjore.



Every one knows that Tanjore district is producing paddy, the staple food of the State. But, only a few know the fact that the genius of Tanjore has evolved an art which made the paddy, an artistic material of ornament, apart from its use as food product.

As a seat of learning and fine arts, the Tanjore Delataic area has a great cultural heritage. A number of rural arts and handicrafts have received the royal patronage for centuries, during the Chola, the Naick, and the Maratta periods, various arts, and crafts thrived in Tanjore area. One of such exquisite handicrafts developed in Tanjore was, garland-making. The special types of garlands were made of pith, lace, sandalwood paste, cloves, cardamom, etc. The latest addition to the series, is the paddy. The paddy grains (the long 'samba' variety) are carefully selected and woven into fascinating garlands with needle and thread alone.

This new handicraft was recently evolved and developed by one Sri R. Venugopalan of Tanjore town. His special skill lies in producing marvellous garlands out of ordinary material, such as the paddy and sandalwood paste. The long variety of paddy grains are used by him in making these garlands. Three or four lady members of his family, assist him in the needle-work and artistic display of the materials in the form of garlands or attractive bouquets.

Sri R. Venugopalan is a middle aged man of 43 and claims to his credit thirty years of experience in the field of garland making. It seems he was engaged in making garlands out of natural flowers in his younger days. He had an opportunity to learn the art of making lace-garlands, from a number of persons. He still remembers them with reverence and gratitude. In 1955, an opportunity was provided for exhibiting his creative genius. Sri Venugopalan was asked by the Collector of Tanjore district to manufacture a new variety of garland, which would be creditable to the artistic traditions of Tanjore. The artist in Sri Venugopalan took up the challenge. He evolved a novel kind of garland, which would be at once attractive and amazing. The result was the production of paddy and Javadu garlands, which earned

an all-India reputation. The cost of each garland now varies from Rs. 50 to Rs. 750 depending on the artistic display and the materials used.

When important State guests arrive in India or Madras State, it is almost certain that they will be presented with garlands from Tanjore. When their Excellencies Marshal Bulganin, and Mr. Krushchev of U.S.S.R. visited Madras State, Tanjore garlands were presented to them. The exquisite beauty and novelty of these garlands attracted them most and were very much appreciated by the distinguished visitors. In important exhibitions, these garlands find a place and certainly bear ample testimony to the rare skill of South Indian craftsmen.

Any casual visitor, who enters the Art Gallery at Tanjore, will be struck by the beauty of the various types of fascinating garlands preserved there in glass cases. In May 1957, Sri. S. K. Dey, Union Minister for Community Development, who paid a visit to the gallery during last May was fascinated at the sight of these garlands and exhorted every Indian to be proud of this rare handicraft, and spread the art to every village in our country. He desired that people in other parts of India should know about this art and wanted the authorities concerned, to produce a special brochure on the subject.

Regarding the manufacture of pith articles including garlands, the Government of Madras have taken special steps in encouraging this decaying art. A training institution has been opened at Tiruthuraiipundi, where Sri Gopalakrishnan, the master-artist in the field, is coaching a number of youngmen. Out of pith, the deft hands of the trained artist, can make flowers that resemble the real ones like rose, jasmine, lotus, sun-flower, etc., and garlands which will not fade away. Suitable colours and fragrance are also added to these pith articles to make them more attractive and identical with natural ones. Apart from flowers and garlands useful models of artistic display are also made out of pith. Name boards, dolls, are made and they are becoming very popular. In the recently held Intra-State Seminar (Tiruchi and Tanjore districts) on Community Development, all the delegates (about 400) were given special kind of badges in which artistic designs made of pith were suitably incorporated. The pith designs were very much appreciated by the delegates to the seminar.

At Tanjore, which is famous for its dolls, a training centre for the manufacture of paper toys and paper machie articles, has been opened by the District Collector, on 12th May 1957. Sri V. T. Rajan, who has already earned

name for his mastery over the subject is the Principal of the institution. His articles made of paper machie, especially the Dafadar, the Watchman and the Gardner were appreciated in almost all important exhibitions held in various parts of the State. Sixteen trainees on a monthly stipend of Rs. 25 are being trained for the first year. Coaching is given to trainees in drawing mould-making, painting etc. Powder boxes, electric lampstands, writing sets, toilet sets, flower vases, ash trays and similar type of articles will be made from paper machie, in due course. The training centre will be run departmentally for one year, and afterwards, will be converted into an industrial co-operative with the trainees as members. This is also another art which was in decay and which is being revived by the efforts of the Madras Government.

There are other cottage industries which are encouraged by the Government in Tanjore district. They are (i) the Art Metal Industry-cum-training Centre at Swamimalai, (ii) Bell-Metal Industries-cum-training Centre at Nachiarkoil, (iii) a Tannery Centre on a Co-operative basis at Aduthurai.

A scheme for giving training to 15 candidates annually in Art Metal Industry on modern lines at Swamimalai, (Kumbakonam taluk) which is famous for casting of metal idols, has been



Rings and strings are made from the raw material that goes to make a garland.

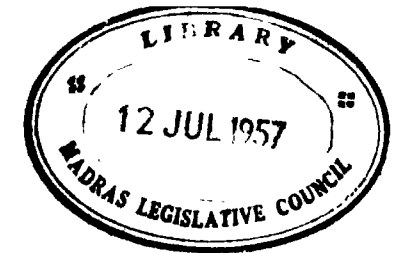


Pith from a water plant is the raw material for many kinds of artistic models. In the picture above is a tree made of pith.

sanctioned. The centre has been started on 17th February 1957. The trainees are taught by experts in Casting, Engraving, Polishing and in the manufacturing of articles of artistic beauty. Servicing is also provided in the scheme. The centre will be conducted by the Government for five years and then converted as an industrial co-operative with the trainees as members. A monthly stipend of Rs.30 is given to the trainees.

A scheme for the establishment of an Industrial School at Nagapattinam has been sanctioned. 120 candidates are receiving training in Blacksmithy and Carpentry in this school. A tannery centre on a co-operative basis has been started at Aduthurai for the development of leather industry.

Consequent on the representations made by the agriculturists of Maduranthakam taluk, the Government have directed in modification of the rules for the recovery of loans granted under the intensive manuring scheme, that only 50 per cent of the total dues recoverable in fasli 1368 in Chingleput district be collected during that fasli and the remaining 50 per cent be recovered in the next fasli.



A Shrine of Rare Art

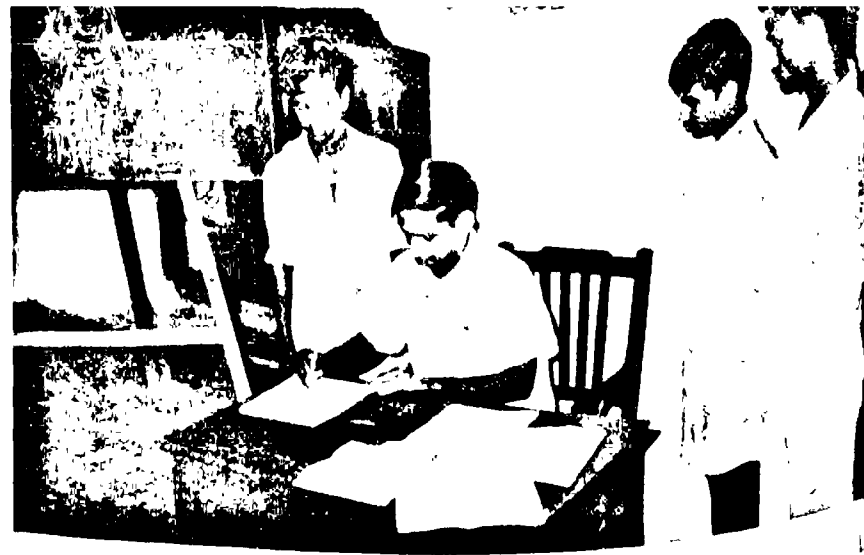
The Madras Museum



PAPER TOY MAKING, TANJORE

One of the artistic handicrafts of Tanjore is making of paper toys. The toys shaped here by expert hands have already earned a name in many exhibitions run in our country on all-India level.

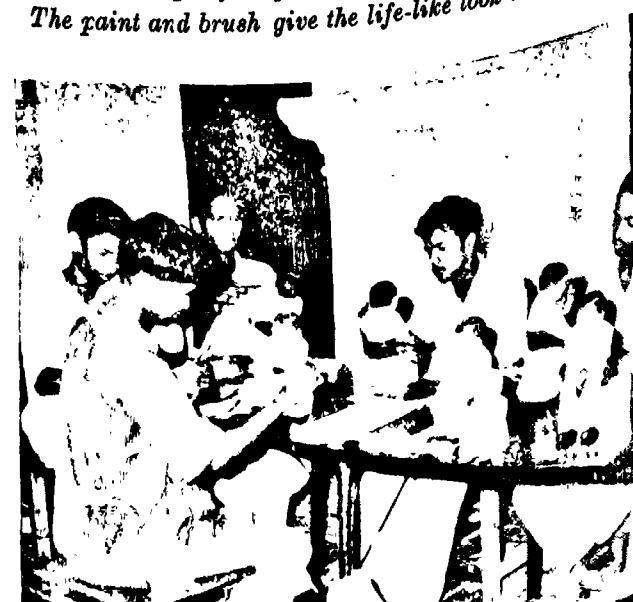
This handicraft which was fast disappearing due to lack of encouragement is sought to be revived by the efforts of the State Government. A Centre has been opened in Tanjore recently for providing training in the art of making paper toys and papiermache articles.



Sketches are drawn and used as basis for shaping the dolls.
(Bottom) The paper paste is prepared.



Bottom left : Toys are shaped from the paper paste.
Bottom right : The paint and brush give the life-like look to the toys.



To the State of Madras goes the credit of starting the first provincial museum in the whole of India. In the early years of the Madras Museum its chief interest was in the natural resources of the State and in its flora and fauna and ethnology. Surveys, for example, of the existence of iron ores, coal and building stones were carried out, and the results were published by the Madras Museum in the earliest years of its history. Interesting experiments were conducted on sylvi-cultural problems, some of the exotic trees now standing on the Museum grounds being the relics of such experiments.

The Madras Museum now has galleries devoted to Botany and Economic Products, Geology, Zoology, Archaeology, Arts and Crafts of Southern India, Ethnology, Prehistory and Numismatics.

Archaeological Galleries.

In the Museum's archaeological galleries—easily ranking with the finest in the country—Hindu temple architecture and Hindu sculptural art are illustrated by chronologically arranged series of Tamil, Telugu, Kannada and North Indian sculptures of many periods such as Pallava, Chola, Pandya, Vijayanagar, Chalukya, Nolamba, Hoysala, Gandhara, Gupta, Pala and Sena. The finest specimens of early Buddhist sculpture in the stupas of the Krishna valley are from Amaravathi in Guntur district. These consist of fine marble panels depicting numerous scenes from the life of the Buddha and the stories of the Jatakas such as the taming of the wild elephant, the division of the relics of the Buddha, the court scene, and the translation of the Buddha's bowl to heaven. Besides these world famous sculptures are the superb crystal reliquary caskets and gold ornaments from Bhattiprolu and the

bronzes from Amaravati and Nagapattinam. Miniature models of the stupas of Sanchi and Amaravati give an impression of the glory of the classical age of stupa building. The evolution of the scripts of India is also illustrated in a series of stone inscriptions.

Historical collections.

The Museum has a large collection of coins from all over India representing all the epochs of Indian History from the Satamanas and Puranas dating from about Mauryan times to the English East India Company days.

The extensive trade relations between India and the Mediterranean in the early centuries of the Christian era are evidenced by the large number of Roman and Venetian coins unearthed in South India and preserved in this Museum. Antiquities from Arikamedu an Indo-Roman trading station in South India, concerned principally with the manufacture and export of textiles and beads of semi-precious stones, form another priceless collection. The history of South India in the Hindu period is writ large on the four hundred copper-plate grants housed in this Museum while arms, guns, cannon, war trophies and historical documents of the East India Company reveal phases of British-Indian history.

The natural history galleries of the Museum give a complete picture of the marine and terrestrial fauna of Southern India. Extensive collections represent outstanding types in each and every one of the groups, like corals, insects, worms, molluscs, and other invertebrates, fishes, reptiles, birds and mammals. A number of miniature diorama cases exhibit animals like the cobra and the starred tortoise in their natural habitat and a section is entirely devoted to a collection of foreign and exotic fauna.

Among the skeletons, a huge 60-foot whale skeleton is an impressive exhibit.

Botany.

In the botanical galleries are exhibited specimens of the rich flora of Southern India, of scientific as well as economic importance. The classified exhibits include, besides representatives of the various taxonomic groups, such economic products as timbers, fibres, lac, resins, oil seeds and other raw materials used in medicine and industry.

Besides exhibits illustrative of descriptive geology, minerology and palaeontology, the greater part of the geological galleries illustrate minerals of industrial importance such as mica, manganese and corundum, and industries such as glass, precious stone, building stones and lignite. A special exhibit is the illustration of fluorescence of minerals under ultra-violet light.

Pre-historic period.

The life of ancient man in India over a hundred thousand years ago to the beginnings of the historic period is depicted in the prehistoric section of the Museum by a wealth of artifacts characteristic of the stone, bronze and iron ages in succession. World famous collections of palaeolithic and neolithic tools, ancient pottery, ornaments, beads, weapons of war, agricultural implements and ritual objects associated with urn burials and rude stone monuments or megaliths help us in understanding the culture and way of life of the ancient South Indians.

The ethnological galleries of this Museum give the visitor an insight in the ways of life of some of the principal aboriginal tribes of Southern India. Among these are the pastoral

(Continued on page 32)

Courtallam—Spa of the South

Courtallam, known as Spa of South India is a health resort on the plains. It is situated near Tenkasi at an elevation of about 550 feet on the southern arm of a deep bay in the Western Ghats. Long before it was discovered as a health resort, Courtallam was attracting for centuries crowds of pious pilgrims because of its waterfall and the temple.

The water from the falls is said to contain mineral properties capable of curing many ailments and restoring good health.

Unlike the hill stations of Ooty and Kodai, Courtallam as a health resort is within the reach of poor and middle classes. It is becoming increasingly popular due to the interest evinced by the Madras Government to provide more amenities. Neat-looking bungalows are fast springing up around the falls and the temple.

The season at Courtallam begins with the setting in of the South West Monsoon in June and continues right up to the end of September.

Around the place is a network of branch roads connecting it by short routes with all the main roads of the neighbourhood. Possessing as it does fine waterfalls, delightful forest scenery, a temple of repute and during certain months of the year, an exceptionally cool climate, Courtallam has long been a favourite resort of the people, whose desire is to relax and have a quite time. Its annual rainfall is 58 inches, more than twice the average for the district. From June to September, the hills which overlook the Courtallam "bay" are overcast with storm-clouds beaten up through the Ariyankavu pass by the winds of the South-West monsoon; and at a time when the rest of the district gets practically no rain, heavy showers are constantly falling along the slopes of the hills and over a few square miles of the country at their foot. Whether rain falls or not, the wind blowing

through the hanging clouds reduces the temperature by ten or fifteen degrees below the average of the district and substitutes a delightful climate for raging winds and sand storms.

During this season, as also from November to January, the period of the north-east monsoon, the waterfall—the "Vada aruvi"—one of the most striking natural beauties of the place, is in full flood. It is by this cascade of nearly 200 feet that the Chitrar makes its final descent into the level country. Seen from the foot, the river comes first into sight rushing headlong from the forest above over a sheer precipice nearly half-way down, a deep trough in the face of the rock, known as "the boiling sea" (pongumakadal), breaks the fall, and it is beneath the mass of water issuing from this basin and in the pool lying at the foot of the fall that all classes of people delight to bathe. "What conduces much" (so runs a medical report of 1811) to the restoration of the invalids at this singular abode is the little waterfall, under which most of the Europeans daily bathe. This cataract is, by a division of a rock above separated from the greater one; and is not more than thirteen or fourteen feet high. The falling of the water, after the first shock is over, gives an indescribable feeling of pleasure, by its constant beating, it quickens the circulation and produces a fine glow all over the body; and has besides, the further good effects of dispelling languor, raising the spirits, exciting appetite, and promoting digestion in a superior degree to any other kind of bathing that we are acquainted with. It has, in consequence of these virtues, together with the delightful climate of the valley itself, been the happy means of rapidly restoring many to health and comfort who previous to their visit to Courtallam, appeared to be hastening to their graves."

Higher up the Chitrar, within easy reach, are two more falls—"Shenbagadevi aruvi", about a mile from the foot

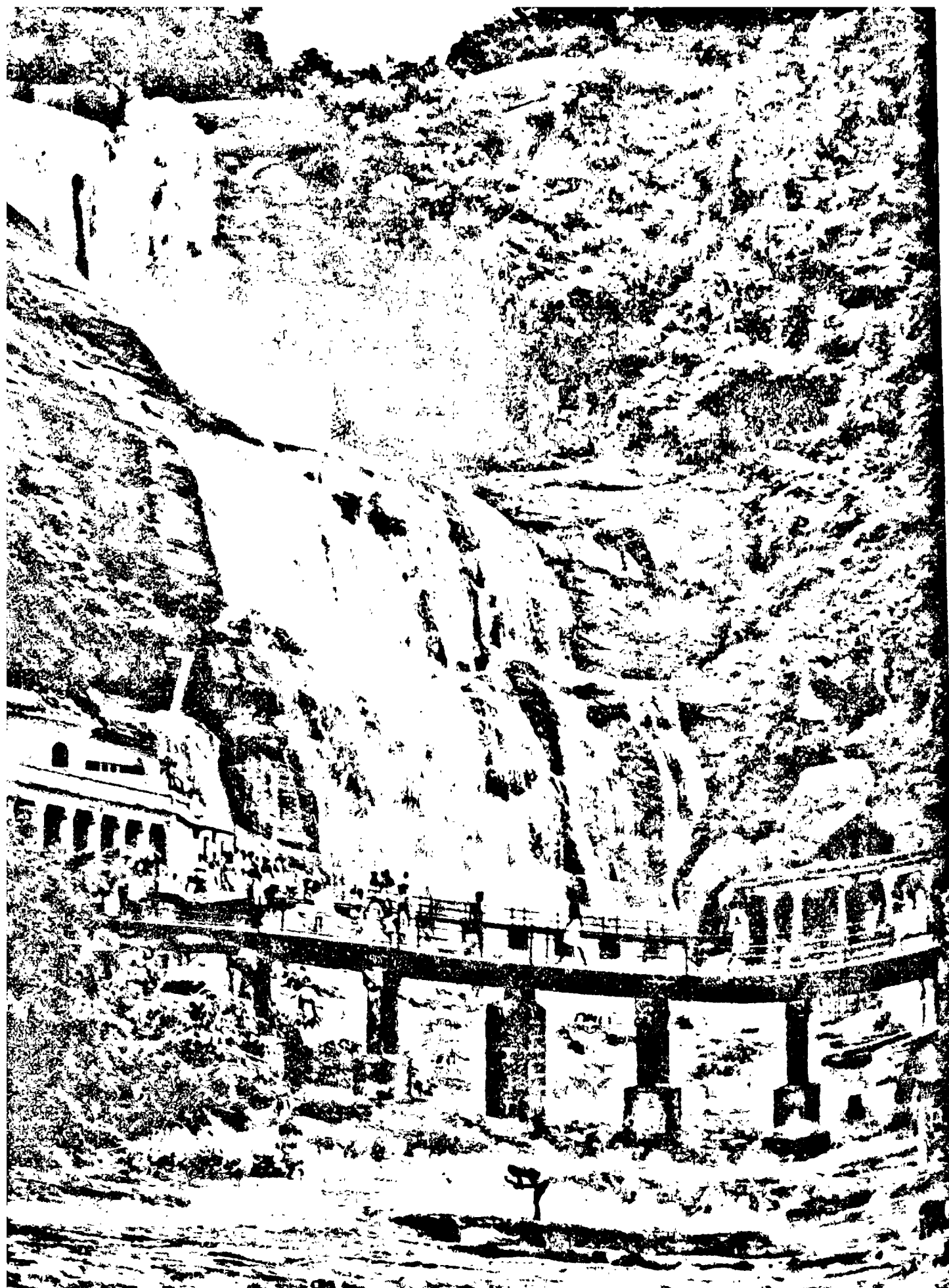
of the hills; and about two miles further up again, "Tenaruvi", the "Honey fall", a magnificent cascade descending a hundred feet through a vertical cleft which suggests the hollow contained by the three walls of a square chimney.

The natural scenery for which the place is justly famous is strongly reminiscent of the west coast. The road from Tenkasi leads up a gentle incline through wide stretches of paddy fields, green for nine months of the year and fringed with dense topes of coconut, jack, mango and arecanut trees, which drink moisture from a network of channels. Nearer the hills, the wet fields rise in tiers, deriving their supply from the numerous little tanks that intercept the hill streams before they join the Chitrar.

To the botanist and the sportsman the jungle around Courtallam is equally delightful. As early as 1835, Courtallam neighbourhood was explored and actually 1,200 species of flowering plants were collected in an area of twenty square miles. It was calculated that at least 2,000 species were to be found and that the ferns were almost equal in number. Sambhur and higher up the hills, ibex are fairly numerous; spotted deer are less common. Tigers make occasional descents, and pigs may be met within the jungle at any time or place. Jungle-fowl and spur-fowl are plentiful.

State Aid to Industries

Six industrial concerns were recommended a total aid amounting to Rs. 3,70,000 under the Madras State Aid to Industrial Act, by the Board of Industries at its meeting on 30th May 1957. The concerns are those engaged in the manufacture of safety matches, blades, paper cutting machines, treadles, hard press, Gally proof press, etc., Radiators for automobiles, refrigerators, etc., Diesel Pump elements, delivery valves, injector nozzles, etc., Photo Mounts, Folio Mounts, Photo albums and corners, etc.



To Save Livestock from Deadly Diseases:

Preparation and Use of Biological Products

By SRI S. VANCHESWARA IYER, Superintendent, Institute of Veterinary Preventive Medicine, Ranipet.

Biological products otherwise termed as 'Sera and Vaccines' are important weapons useful in the control and eradication of the different contagious and infectious diseases of men and animals. Animals like men are susceptible to various contagious and infectious diseases caused by bacteria and viruses and the annual economic loss caused by these diseases is estimated to be several crores of rupees. The importance of livestock as a national wealth especially in a predominantly agricultural country like India cannot be over-estimated and the heavy and sudden losses of livestock from these diseases upset the Agricultural economy of the ryots and cause them considerable loss and damage. Further some of the diseases of livestock like Anthrax, Brucellosis, Tuberculosis, Rabies, etc., are communicable to human beings and these diseases have to be effectively controlled in animals from a public health point of view also. Inasmuch as these diseases break out suddenly or spontaneously and as treatment in most cases is ineffective due to their acute nature and short duration, the only course left to us is to adopt the maxim that 'Prevention is better than cure' and protect the livestock at the appropriate time against these contagious and infectious diseases and make them resistant to these diseases.

As a result of experiments and research carried out in the past, it has now become possible to manufacture potent and efficient biological products which confer considerable protection in healthy and incontact animals and save them from these deadly diseases. By the judicious use of these products coupled with the adoption of appropriate sanitary measures it has been found possible to keep these diseases under check and ultimately eradicate them from certain parts of the State.

Diseases affecting Livestock.

The important diseases affecting the livestock in this State are Rinderpest, Haemorrhagic Septicaemia, Black Quarter, Anthrax, Brucellosis, Tuberculosis, John's disease, Foot and Mouth disease in cattle, Enterotoxaemia in sheep, Sheep and Goat Pox and Anthrax in sheep and goats and Ranikhet Disease and Fowl Pox in poultry.

Rinderpest.

Of these, Rinderpest is the most dreaded scourge and has been responsible for about 70 per cent of the annual loss among cattle and buffaloes. For the manufacture of necessary biological products for promptly protecting the susceptible animals in the State against this disease, the Government of Madras established in the year 1932 the "Serum Institute". The Institution which was first located in the City of Madras was subsequently shifted to Ranipet in North Arcot District and the name of the Institution has also since been changed to the "Institute of Veterinary Preventive Medicine".

After the establishment of this Institute in 1932, necessary biological products for the control of Rinderpest were manufactured and made available in adequate quantities with which the staff of the Animal Husbandry Department intensified the measures for the control and eradication of this disease from the State. As a result of judicious and well planned campaign, the adoption of suitable sanitary measures, the excellent team work and constant vigilance of the staff, this disease was successfully eradicated from the State within about 20 years after the establishment of this Institute and the Madras State is now free from this dreadful scourge. This is no small achievement of the Animal Husbandry

Department, Madras when compared to the havoc and loss this disease is causing in certain other parts of the country. The department is still vigilant to prevent the ingress of this disease into the State for which check posts have been established in the land frontiers of the State where all animals entering this State are compulsorily vaccinated against this disease and branded for necessary identification.

Adequate stock of potent serum and vaccine prepared by using modern methods and technique—the freeze drying process is always maintained at the Institute of Veterinary Preventive Medicine, Ranipet to meet any emergency that may arise. During the past twenty-five years, 274, 39, 319 doses of Anti-Rinderpest



Fowl-Pox "Skin and Eye Forms".



A case of Ranikhet disease.

Serum and 9,727,535 doses of Goat Blood Virus have been manufactured at this Institute to protect the cattle of the State against this disease. In addition, 3,840,150 doses of Freeze Dried Goat Tissue Rinderpest Vaccine which is now used for protecting cattle against this disease have also been manufactured at this Institute during the last four years.

Next to Rinderpest, Haemorrhagic Septicaemia and Black Quarter are two other important infectious diseases of cattle and buffaloes in the State, accounting for an annual mortality of about 12,000 head of cattle valued at 2-3 lakhs of rupees. Efficient and potent vaccines for the prompt control of these two diseases are also being manufactured at the Institute of Veterinary Preventive Medicine, Ranipet and during the past twenty years, 9,514,110 doses of Haemorrhagic Septicaemia Vaccine and during the last 15 years 9,841,908 doses of Black Quarter Vaccine have been manufactured and supplied to the field staff. As a result of the experiments and research carried out at this Institute in recent years it has been possible to improve these vaccines much and these improved vaccines confer a much more lasting immunity in vaccinated animals. Since these two diseases are found to have a predominantly seasonal incidence in the Madras State, they can be effectively controlled by carrying out vaccination of all healthy cattle in the area well in advance of the expected season and the loss on this account reduced to the barest minimum.

Anti-Anthrax Serum and Anthrax Spore Vaccine, the products necessary for the control of Anthrax in cattle, buffaloes, sheep and goats, etc., are also being manufactured at this Institute. In addition, Brucella Abortus

Vaccine and Antigens for the control and diagnosis of Brucellosis among cattle in the State are also being manufactured here. The manufactured and supply of these products have been taken up only recently and so far 111,620 doses of Anthrax Spore Vaccine, 8,000 doses of Anti-Anthrax Serum, 17,116 doses of Brucella Abortus Vaccine, 17,450 c.c. of Brucella Abortus Tube Antigen and 1,355 c.c. of Brucella Abortus Plate Antigen have been manufactured and supplied.

A vaccine for the control of Enterotoxaemia in sheep and a product for the control of Sheep Pox are also manufactured here. During the past 4 years, 161,100 doses of vaccine for Enterotoxaemia and 2,91,080 doses of Sheep Pox Vaccine during the past seven years have been manufactured and supplied.

Ranikhet Disease and Fowl Pox.

Ranikhet Disease and Fowl Pox were a great menace to the poultry breeders in the past and they were impediments for the development of the infant poultry industry. As a result of researches carried out in the past, suitable, safe and potent vaccines have been evolved for the efficient control of these two diseases and these vaccines are now being manufactured and supplied from Ranipet Institute using modern methods and technique. As a result of the availability of these two products it has now become possible to plan and undertake big schemes for

the development of poultry in the State. The poultry owners have nothing more to fear as the vaccines for these two diseases now manufactured and supplied confer lasting and durable protection in the vaccinated birds. During the last 2 years 4,085,500 doses of Freeze Dried Ranikhet Disease Vaccine were manufactured and supplied. 271,042 doses of Fowl Pox Vaccine have also been manufactured and supplied to the staff during the course of last 15 years.

In addition to the manufacture of different biological products, experiments and research to improve the quality of products that are now being manufactured and to manufacture new products are also being conducted at this Institute.

Important and ambitious schemes for the development of the livestock of the State have been envisaged under the Second Five-Year Plan and some of them are already in progress in certain parts of the country. Much progress in these directions could not be achieved until and unless the different contagious and infectious diseases of livestock are effectively controlled. To facilitate this and to preserve the health of the livestock in the State, this Institute will always strive its best to manufacture and supply biological products of quality in adequate quantities and thus contribute to the ultimate noble goal of peace and plenty in the country envisaged in our National Development Plans.



At Ranipet Veterinary Institute. A white Leg-horn is injected with serum prepared at the Institute.



A new cashew plantation that has sprung in the Vandalur area, due to the continued efforts of the Forest Department. The plantation may start yielding in five to six years.

Scrub Jungles Turn into Cashew Plantations

The efforts of the Forest Department to transform the scrub jungles of Vandalur and Kattur in Chingleput district into money-spinning cashew plantations proved to be very successful. The planting was made during



Sri M. Bhaktaratsalam, Minister for Home, accompanied by Sri P. S. Krishnaswamy, Chief Conservator of Forests, Sri N. Murugesu Mudaliar, Deputy Secretary, Food and Agriculture, and other officials inspected the cashew plantations of Vandalur in the first week of June.

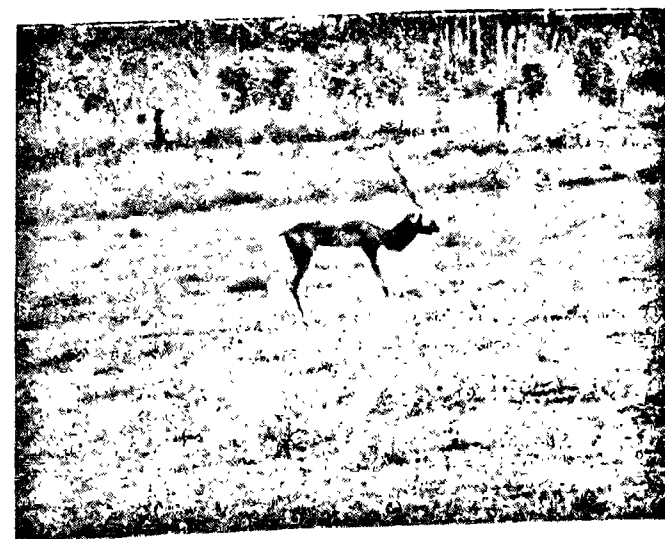
August and September last departmentally and the plants have already grown to a height of three feet on an average.

The raising of cashew in some of the degraded ex-panchayat reserved forests was examined by the Forest Department last year and was sanctioned as a Scheme in the Second Five-Year Plan with the approval of the Planning Commission. The target is the raising of cashew in about 40,000 acres during Five-Year Plan period in Chingleput, North Arcot, South Arcot, Tiruchirappalli and Tirunelveli districts. Cashew comes up well in the shallow soil in poor forest areas. It comes to fruiting in 5 or 6 years and will meet the growing demand for cashew kernels and cashew shell oil. Cashew is a dollar-earning product which is much in demand from America and other countries. The cashew shell oil also finds industrial uses and as an additive to aviation petrol. Apart from these utilitarian aspect, the regeneration value to the forest lands is important. The bushy cashew plants which take up limited quantity of nutrients from the soil helps the development of the much-needed pasture for cattle without interfering with the other

(Continued on page 32)

Save Black Buck from Extinction

By Sri M. A. BADSHAH, Madras Forest Service



Mother nature was extremely generous and lavish when it made a magnificent gift of Black buck, the most fascinating of the Antelope family to India exclusively. Nowhere in the world is Black buck found except India and we should be proud of this unique possession and remain grateful to nature.

It is no exaggeration to say that of all our indigenous mammals none has played so important a role in the history of India as Black buck and to-day no other species is better known or widely prized as game. Sanskrit and Urdu literature and poetry abound in references to its elegant form and attractive eyes. Black buck was the constant companion of God Mahadeva, the creator. Rishis and recluses have been adorning their bodies with the soft velvety skins of Black buck. For performance of Puja nothing is considered more sacred than a Buck's skin.

An ornamental animal.

Its striking colour, lustrous velvety black above and whitish beneath, with graceful spiraled horns, swift nimble feet, sparkling bewitching eyes encased in a white circular ring, all combine to give an elegance and beauty hardly equalled by any ruminant. An ornamental animal, it presents an enchanting spectacle and wherever found it is a notable asset to the landscape. A grown up stag stands about 2½' at the shoulder and weighs about 90 to 100 lb.

Females are not so large as the males. The leadership of the herd is vested in an elderly and vigilant male.

Breeding season.

Black buck breeds at all times but the main rutting season is between February and March. The rutting urge develops in the stag earlier than the doe and continues longer and this period is marked by the swelling of the neck. Black buck being polygamous, one buck will mate with as many as 10 does and possibly more. During the rutting period the males move about extensively seeking receptive females and fighting with other males. The stags strut about in a stately manner with their head thrown back and the horns almost touching the shoulders to attract does of their choice. The period of gestation is about seven months. Generally one or two fawns are delivered at a time. Does conceiving for the first time bear a single fawn. The number thereafter may be one, two, three and sometimes even four.

Changes in colour.

Black buck undergoes remarkable changes in colour. When young its coat is pale yellowish fawn, like that of a doe and as it advances in age the coat gradually changes into pompous black.

In the yearling buck the antlers have no spirals. In the second year a large single twist develops and as it gets

older and older full number of spiral twists appear on the horns. Horns are 16" to 20" long. Unlike the deer, Antelopes do not shed their horns. The horns of deer are solid and those of Antelope hollow.

Black buck feeds on grass and other cereal crops, grazing till noon and returning to shady trees and groves for rest during the hot hours of the day. Keen eye sight, smell and speed are its defences. When alarmed the herd slowly moves off in a series of light and graceful leaps and bounds gradually culminating into a stampede.

Distribution.

A few years ago this enchanting animal was found all over the plains of India except West Coast as it has a pronounced partiality to open country and not thick forests. Herds of twenties and thirties were a common sight in the open fields and any number could be seen as one travelled in the train. But on account of merciless massacre of this animal in the recent past for personal profit and gain, its population has dwindled considerably in numbers. The few that have survived have retreated to the remote and inaccessible regions. No other animal was more sought for and none faced such a severe persecution as the Black buck. The venison was tender and tasty, from its skin came sundry articles of clothing. The fat or tallow made excellent candles and

water-proofing material for wearing apparel. The decorative antlers were put to use as knife handles and racks for clothing and guns.

A few Black bucks could be seen in the Guindy Park Reserve (Madras) and also in the plains along sea-shore near Point Calimere. Herds of forties and thirties and single family parties consisting of four, a male and a female with two fawns, could be seen foraging in the open treeless maidans at Point Calimere between Kodaikadu Reserved Forest and the sea. The presence of Black buck in this area has added charm to the beautiful natural scenery here.

Rearing of the young.

As the time for fawning approaches the pregnant doe abandons the herd and steals away to a well-concealed spot usually under cover of bushes or small trees and gives birth to the young. The helpless young remain in the hiding till they are able to follow the mother. During this period the mother often leaves her offspring for several hours at a time for foraging in the immediate neighbourhood but during nights she remains in constant attendance. Hiding the fawns during the day and feeding them at nights appears

to be the usual routine during the early period of dependency of the young. When the young gather strength, the mother leads them to the herd.

Save it from extinction.

If Black buck is not zealously protected India will soon be losing its unique possession. It will meet the same fate as the hunting leopard or cheetah, the fastest mammal in the world, so numerous in India fifty years ago and now completely extinct. There is not one cheetah in India to-day in its wild state.

Shooting of Black buck in the Reserved Forests of the Madras State was prohibited as early as 1951. But the law will not afford it the required protection and immunity from shooting without the willing co-operation of the members of the public in general and particularly those residing in close proximity to areas where Black buck is surviving. Man the Supreme of the creation will stand condemned in the eyes of God if he fails to rush to the rescue of his less fortunate brethren specially when they look to him for protection. (Photos by the author.)

Pearl Fishery

The pearl fishery operations which commenced on 15th March off the Tuticorin coast has resulted in the fishing of over 91 lakh oysters up to the end of April, yielding Rs. 1,33,000 by way of revenue. Because of the presence of a good deal of oysters, the operations have been allowed to be continued during the month of May also.

* * *

The Government have sanctioned the establishment of 3 more Artificial Insemination Centres in rural areas in the districts of Coimbatore, Madurai and Tiruchirappalli and one Centre in connection with the dairy schemes at Kancheepuram. Under the All India Key Village Scheme, 17 Artificial Insemination Centres in rural areas and 3 Artificial Insemination Centres in conjunction with the dairy schemes are proposed to be established during the Second Five-Year Plan. During 1956-57 four such Artificial Insemination Centres were started.



A family of Black Bucks in the Guindy Park Reserve, Madras.

Ahimsa or the Atom Bomb—

The Choice Before Humanity*

(A Review by Sri A. K. Venkatesan, Chief Reporter 'The Hindu')

The first half of the twentieth century witness many striking developments in the realm of science and technological advancement as well in the sphere of thought, human relations, morality and all that goes to make the larger humanism. Two of these, however, stand out above the rest as epoch-making in their character and significance to humanity, namely, the evolution of Mahatma Gandhi's weapon of non-violent *satyagraha* and the production of the atom bomb.

By a strange dispensation, the same generation witnessed both these phenomena, removed as they are as the antipodes in their ethos. Hiroshima and Bikini, Pheonix Settlement and Noakhali—these represent some of the phases in the twin currents one taking man in the direction of peace and goodwill, and the other threatening to drag him towards a veritable inferno. There can be no underestimating the potentiality of these developments for the future of man, or gainsaying their importance in the march of human civilisation.

Mahatma Gandhi and his gospel of *satyagraha*,—and in fact India's freedom struggle itself—form a unique contribution in this crisis of humanity. And it is India's pride that her particular contribution has been, once again, in keeping with her moral and

spiritual traditions of Truth, Tolerance; Peace and Non-violence. Mahatma Gandhi is the author of the gospel and his life the most authentic exposition of its technique evolved through years of pondering, self-purification, disciplining and suffering. *Satyagraha* in South Africa and the Delhi Diary, present to the reader the opening act and the climax of the unique drama of the life of this frail but brave man of prayer. They span fifty eventful years of a life which forms the history of his country during the period, and its successful march to freedom. However, it is not the events of the march, remarkable as they were, so much as the manner of its progress and its fruition that constitute the principal interest of the drama and make the real contribution to human history and civilisation. For here for the first time we see forged and wilded successfully by a whole people a moral instrument more potent than the might of military arms,—the weapon of non-violent *satyagraha*.

In 1907, Gandhiji was assaulted in the streets of Johannesburg and cudgelled by a giant pathan resulting in severe bleeding injuries, which rendered him unconscious. When he recovered him unconscious, he made anxious inquiries about his assailant for whom he had nothing but pity, and refused to prosecute him. Almost forty years later, a week before his assassination, a bomb was thrown at him in his prayer meeting. His reaction again was one of pity for the misguided bomb thrower and a desire that the man should not be harassed. Gandhiji taught his followers never to harbour ill-will or bitterness and to always try to bring about a change of heart and to wean away the wrong doer from his path by love and righteous action.

"*Satyagraha* was a priceless and matchless weapon and those who welded it are strangers to disappointment and defeat", he writes. The essential conditions for *satyagraha* he insisted were that "the cause must be just and the means fully non-violent." Further,

"A *satyagrahi* bids good bye to fear. He is never afraid of trusting the opponent. Even if the opponent plays him false twenty times, the *satyagrahi* is ready to trust him for the twenty-first time; for, an implicit trust in human nature is of the very essence of his creed."

Righteous action, steadfast stand for truth, irrespective of what the opponent did was bound to succeed eventually. For, the *satyagrahi* he insisted, the struggle itself was victory.

Satyagraha-Ahimsa and other expressions of the Gandhian vocabulary are today used in a way which shows that neither their true implications nor even their basic concepts have been correctly understood. In quite a number of instances, the terms have been misapplied to movements totally opposed to the fundamentals of those concepts. *Satyagraha* in South Africa with Hind Swaraj, can therefore be read with immense profit and enlightenment as to the true nature and implications of *satyagraha* and *ahimsa*. The events narrated are of much historical interest; even more interesting is the vivid yet simple manner of the narration. But even thus, the interest of the narrative occupies a subordinate place in relation to the underlying political philosophy whose expounding is so fascinating.

Gandhiji's experiments in truth continued after his coming over to India in 1915, when the mantle of the leadership of the nation fell on his shoulders.

*1. *Satyagraha in South Africa* by M. K. Gandhi.

Page 351.

Price Rs. 3.

*2. *Delhi Diary (Prayer speeches of Mahatma Gandhi from September 10, 1947 to January 29, 1948).*

Page 406.

Price Rs. 2.

Published by Navajeevan Publishing House, Ahmedabad.

The events of the three decades that followed represent further stages in the evolution of his gospel and its technique, beginning with the Viramgam Customs *satyagraha*, and progressing on to the Champaran *satyagraha*, Rowlatt Act and the triple boycott movement, Salt *satyagraha*, Civil disobedience, the Quit India movement in 1942, the advent of freedom, his *padayatra* in Noakhali and his end in Delhi. India's Swaraj was born after a caesarian operation. Its birth was attended by communal massacres unprecedented in extent and fiendishness. Millions of Hindus and Muslims uprooted from hearth and home, trekked in unending caravans seeking safety on the other side of the new frontiers formed by the "incision line". The appalling tragedy left people stunned. Even the never failing optimism of Gandhiji dried up at the turn of events. His anguished heart poured itself forth at the daily prayer meetings, and 139 of these speeches are faithfully collected in the Delhi Diary. It records his "disillusionment" which made him even speak, of death as a deliverance.

During the four and half months of his stay in Delhi from September 1947 to January 10, 1948, covered in this book, he spoke almost every day to the people gathered of evening sat his prayer. Like his earlier speeches during the Noakhali *padayatra*, at Calcutta and in Bihar, they grip the reader with a sense of portent of the tragic finale enacted on that fateful Friday of January 1948. One notice also the tremendous and increasing urgency of his appeals to the people to re-establish human standards of conduct and goodwill among the communities. Perhaps, the Mahatma had an intuitive apprehension of the shortness of the time and the stupendousness of the task still left for him, coupled with the feeling that another person might not be able to succeed if he should fail.

And thus, in the series of episodes of a continuing crisis as it were, varying only in intensity from time to time, Gandhiji practised *satyagraha* again and again. First launched against injustice in the Dark Continent, later directed against the oppression of foreign rule in his own land, his weapon of *satyagraha* found its supreme test in the darkest hour of India's history, when "man went mad," and "brother

raised the dagger against brother," and let loose hell on earth. From Noakhali to Calcutta, and on to Bihar and Delhi, the lone *satyagrahi* threw himself into the holocaust, as "the pendulum of massacre swung wider and wider," his frail frame broken with privation and suffering, heart leaden with sorrow, but faith in his weapon still burning bright, until at the supreme moment of success the assassins' bullet spilled the last drop from his already bleeding heart. His martyrdom came as a sad but fitting crown piece to the gospel he taught and lived in his own life.

THE DELHI DIARY.

THE DELHI DIARY provides a living document of the daily happening and Gandhiji's reactions to the same and bears ample evidence to the crucifixion he was going through all the time. In the nature of things, the communal situation and the refugee problem occupied his attention most. The Diary records—

"In the agony of his heart he cried daily, hourly, to God to bring peace. If peace did not come, he would pray to God to take him. He thought of the poor refugees in Delhi, in both East and West Punjab, today while it was raining. They were roofless and homeless,—suffering for whose sins? He had heard that convoys of Hindus Sikhs were pouring in from West Punjab into the East, 57 miles in length. It made his brain reel to think how this could be. Such a happening was unparalleled in the history of the world and it made him, as it should make all of them, hang their heads in shame.

At the same time, Gandhiji also covered a variety of other topics in these talks, ranging from Kashmir to compost making and linguistic States to vegetarianism. Each subject, however, was dealt with by him with characteristic clarity and incisiveness. And what is more important, his comments had not only an immediate appositeness but a permanent appeal. Thus remarking on the duty of newspapers and newspapermen in connection with the published reports of some incidents, Gandhiji said—

"It was the duty of editors to see that no false report or report likely to excite the public was published in their newspapers. The editors and their assistants had

to be extra careful about the news they gave and the manner in which they dressed it up. . . . It was the duty of the public to keep a strict watch on newspapers and keep them on the right path. An enlightened public would refuse to patronise inflammatory or indecent newspapers."

The Working Committee, of the Congress was engaged in considering the issue of reconstitution of the provinces on a linguistic basis and this is what Mahatma Gandhi said in his prayer meeting on January 25:

"The Congress had already adopted that principle and declared its intention to give effect to it constitutionally as soon as they came to power, as such redistribution would be conducive to the cultural advancement of the country. But such redistribution should not militate against the organic unity of India.

If each province began to look upon itself as a separate sovereign unit. India's Independence would lose its meaning and with it would vanish the freedom of the various units as well.

The redistribution of provinces on a linguistic basis was necessary if provincial languages were to grow to their full height. Hindustani was to be the lingua franca—*rashtra bhasha*—of India, but it could not take the place of the provincial tongues. It could not be the medium of instruction in the provinces, much less English. Its function was to make them realise their relationship with India."

On the duty of Ministers to uphold law and justice, Gandhiji expressed himself emphatically.

"They (Ministers) were bound to let the law take its own course. Clemency of the State had a definite place and had to be exercised under due safeguard. . . . What he wanted to stress was that no Minister had the right to interfere with the course of justice even for his dearest ones. It was the function of democracy to make justice cheap and expeditious and to ensure all possible purity in the administration. But for Ministers to dare to replace or influence courts of justice was the very negation of democracy and law."

Gandhiji always had a soft corner for the people of Madras, and Tamil Nad in

particular. His earliest followers in the *satyagraha* in South Africa came from this community. He pays a big tribute to their qualities and resourcefulness and how they withstood privation and suffering during that struggle. He had some very frank comments to make on complaints of food shortage in that province, and incidentally they formed the very last words of the last prayer meeting he was destined to address.

"Emissaries on behalf of the Madras Government had approached Shri Jairamdas (then Food Minister at the Centre) to arrange for food supplies to that province. Gandhiji felt sorry at this attitude. He wished to impress on the people of Madras that they could find enough

food within their own province in the shape of groundnuts, coconuts and a variety of other edibles. They had enough fish which the majority ate. Why should they need then to go with the begging bowl? It would not do for them to insist on rice and polished rice at that which was bereft of all nutritive value, or obligingly to accept wheat. What they needed was self reliance and faith. He knew of the Madrasis well and had in South Africa in his ranks men drawn from all linguistic areas of the province. Whilst on the march their daily ration consisted only of a pound and a half of bread and an ounce of sugar. But wherever they encamped for the night, they astonished him by singing and cooking edibles picked from the grasses

on the veldt. How could such resourceful people ever feel helpless? It was true we were all labourers. In honest labour lay our salvation and the satisfaction of all vital needs.'

The *Delhi Diary* thus closes with a reminiscence of the *Satyagraha* in South Africa.

One word about the physical part of the books. Gandhiji always insisted on tidiness and precision in all work, and was so even to the point of fastidiousness. The publishers of these volumes may be congratulated on their effort to combine neatness and clearness of print with tidy simplicity of get up.

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Immediate Action on Petitions Presented at Pagalmedu

Roads, Schools, Water for Irrigation, Wells and House-Sites Sanctioned

Orders have been passed by Government on the majority of the two hundred and forty-seven petitions containing 256 requests presented by the villagers, at the Pagalmedu Firka Level Conference on 8th May 1957. An analysis of the petitions disclosed that the requests mainly related to supply of water for irrigation purposes, provision of schools, drinking-water wells, house-sites, culverts, community halls, drainage, formation of roads, constitution of panchayats, supply of marketing facilities, sanction of loans, opening of post offices, supply of electricity, assignment of trees, grazing facilities, etc. Action was taken on all these petitions by means of personal discussions between the District Officials and the Heads of Departments concerned and the requests of the petitioners were complied with in many cases. Some of the requests, which were impracticable had to be rejected. These related, for instance, to provision of irrigation facilities in a certain village by diversion of Araniar waters. In this case the request could not be complied with as the availability of the water in the reservoir was not sufficient to meet the requirements of ryots. In certain other cases the requests have to be investigated in detail and the proposals sanctioned by the Government. For example, the question of extending irrigation from the Araniar Project to Sivagiri, Govarthanagiri, Ramapuram, Vengalathur group of villages, requires investigation. Requests for the construction of roads, wells, provision of schools, house-sites, etc., were as far as possible complied with by the immediate sanction of works and inclusion of certain items under the Overall Plan for the development of the Uthukottai Block.

Repairs to channels.

Four requests for the supply of water for irrigation from the Araniar Project and Poondi Reservoir were complied

with and four others were rejected for the reasons given above. An estimate for Rs. 12,600 has been sanctioned for repairs to the river channel from the Araniar Project leading to Vadamadurai tank and another estimate for repairs to the Manjankaranai tank has been sanctioned and the work will be started soon. The repairs to the Pudukkuppam tank and the Kothacheruvu tank at Siddarajukandigai have also been sanctioned. Twenty-one requests for repairs to irrigation sources were received and of these five were complied with and nine are pending examination. Seven of them were rejected. Twenty-three requests for the provision of schools were received and twelve of them were complied with. Nine of them were rejected and two were included in the Overall Plan. A school has been permitted to be opened at Pagalmedu and it started functioning from May 4, 1957 with 45 pupils on roll. Another school which was closed recently at Sembudu for want of enthusiasm on the part of the villagers and for want of strength will be opened again during June 1957 since the villagers have requested for its revival. A school with mid-day meals for deserving pupils will be opened at Boochiathipattu village during June 1957.

Three bus routes were requested by the villagers. One of them was to run Government Transport buses up to Vengal and this was considered necessary. This will be sanctioned soon by the Regional Transport Authority. A proposal to sanction a bus route between Pulikundram and Alapakkam will be finalised by the Regional Transport Authority soon. Another bus route to Palavakkam from Madras will be notified for sanction by the Regional Transport Authority during June 1957. Five requests were received for constitution of panchayats and two of them were complied with and one was pending. Two of them were rejected.

Provision of drinking water wells.

A majority of requests received was for the provision of drinking-water wells. Sixty-one requests were received and thirty-six of them were complied with, and seven were included in the Overall Plan. Seventeen are pending examination and only one was rejected as the petitioners had to be provided with house-sites. After the sites are assigned the question of sinking a well will be considered.

Thirty-six requests for house-sites were received and one request has been complied with and thirty-three are pending. Two were rejected. Formation of roads and construction of culverts was the next big demand and forty-three such requests were received. Of these, seven have been complied with, twenty-three were included in the Overall Plan, ten pending examination and only three were rejected.

Five requests for the construction of Community Halls were received and one was complied with and four included in the Overall Plan. The Harijans of Kannigaiper village requested electrification of the Harijan Colony. Street lights have been provided recently and house service connection will be given as soon as wiring in the houses is completed by the Harijans. Thirty-nine requests for provision of loans were received and of these excepting one which was rejected, all others are under examination.

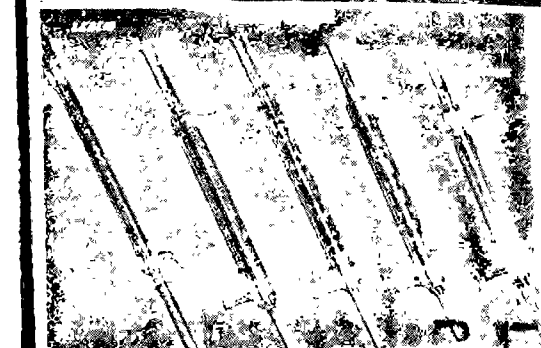
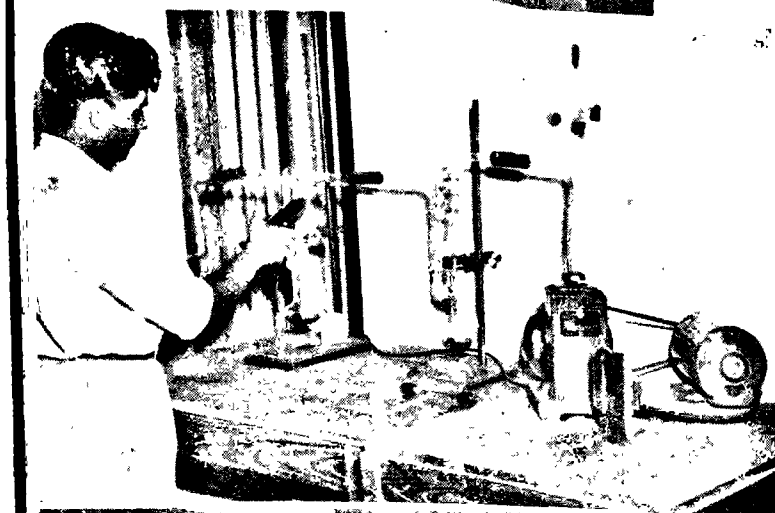
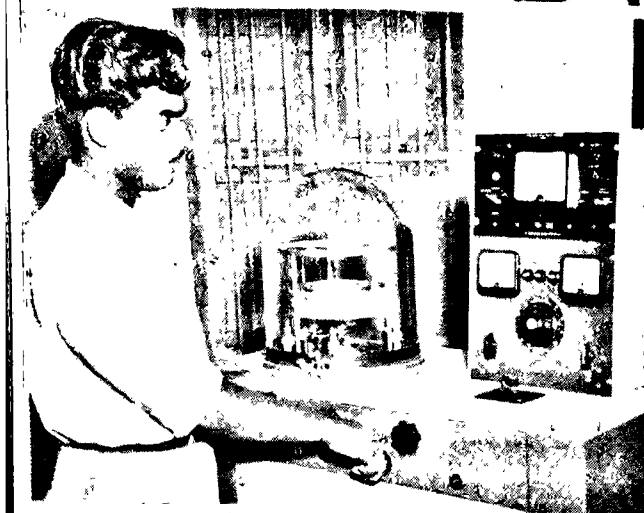
A request for the opening of a post office at Karikilavakkam or Vivasikandigai had been negated by the Postal authorities as there were post offices within a distance of three miles. Fourteen requests for supply of electricity were received and eight of them were complied with, three are pending examination and three rejected. Two requests for supply of craft equipment to Madhar Sangams are pending examination.

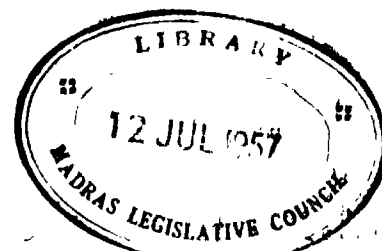
GOVERNMENT SCIENTIFIC GLASS BLOWING CENTRE, MADRAS

The Government Scientific Glass Blowing Centre located at Kilpauk, Madras, trains about 10 boys who can make almost all the apparatus a scientist can conceive or a research worker can think of.

The trainees are taught the three branches of scientific glass blowing, namely—blowing graduation and grinding. The training centre has besides these facilities several other interesting sections like neon and glass sign metal deposition on glass by evaporation and glass toy making section.

Many of the trainees have been employed as glass blowers in some of the great institutions in India. Since last year every successful trainee is given equipment worth Rs. 700 and cash subsidy Rs. 500 to start his own small cottage glass blowing shop.





Auxiliary Cadets Form Road to Vedanthangal

A three-mile road, which will greatly facilitate tourists to reach the Bird Sanctuary at Vedanthangal, was laid by nearly thousand Junior Cadets of the A.C.C. Social Service Camp during the last fortnight. The 22 feet wide road from Vedanthangal, which touches the 48th mile stone on the Southern Trunk Road at Malapalayam, shortens the distance to the Bird Sanctuary by five miles. This road also satisfies the long-felt need of the villages of Hanumanthakuppam, Pudupet and

Pasumbur. The villagers apart from generously donating lands for the road also contributed manual labour and encouraged the Cadets with active co-operation.

Sponsored by Sri O. Venkatasubba Reddiar, M.L.A., the A.C.C. Social Service Camp was under the charge of Captain Gopi and Subedhar Sri K. C. Nayar. About 1,000 Cadets from Madras City, Chingleput and North Arcot Districts took part in the camp in two groups.

A pleasant function was arranged yesterday at Vedanthangal by Sri O. Venkatasubba Reddiar, M.L.A., to congratulate the Cadets on the service they rendered in the cause of the development of the countryside. The visitors to the Bird Sanctuary would remember their services for ever for the road that was laid would become an important link as the Bird Sanctuary gained importance in the days to come. Sweets were also distributed to the Cadets and children who assembled on the occasion.



The Union Food Minister Sri Ajit Prasad Jain and Sri M. V. Krishnappa, Union Deputy Food Minister conferred with the Chief Minister Sri K. Kamaraj and other State Ministers and officials in the second week of June about the prevailing food situation in Madras State.

Cotton - Linters

Will Yield Additional Income if Tapped Properly

By SRI N. KESAVA IYENGAR, Sea Island Cotton Development Officer, Coimbatore.

The cotton plant is primarily cultivated for its convoluted fibres found on its seed coat, commercially known as 'lint'. This product is extracted by a process known as 'ginning' and the lint extracted is utilised for spinning yarns in the mills. In most of the

cotton-producing countries, particularly in India, the cotton seeds are exclusively utilised for cattle food, after reserving a small quantity for sowing purposes. In U.S.A. however the cotton seed is fully exploited by extracting by-products like

'linters', 'hulls', 'cotton-seed cake' and 'oil'. Thus, the cotton seeds are put to maximum use and are considered as important in trade as the lint and various trade regulations, are in force for cotton seed product also. Recently, certain States like Punjab, Madhya Pradesh and Andhra in India have started to crush the cotton seed for oil and they are utilising the cake either for cattle-food or manuring. In Madras State also certain industrial circles have just realised the importance of linters and are attempting to erect machines for delinting and extraction of oil. It is also interesting to record in this connection that the two reputed long-staple cottons of Madras, viz., Madras Cambodia Uganda 1 and Madras Cambodia Uganda 2 have high oil content of the order of 18 per cent or more. As large quantities of these seeds are produced annually, the potentialities for production of oil from cotton seeds have a great future in this State.

A brief account of the cotton linters and other by-products of the cotton seeds is given below for the information of the cotton cultivators, manufacturers, and industrialists.

'Linters', technically termed as "Fuzz", refer to the large number of short fibres on the seed-coat of cotton and are distinct from the long cotton fibres called "Lint" which are used for spinning. Linters constituted about 3 per cent of the weight of seed in deshi cotton varieties and 9 per cent in American types. 'Linters' are removed from the cotton seed by machines which are known as "delinters" and which are similar in construction and operation to saw-gins. The process of delinting is a preliminary operation that is necessary before the cotton seed is dehulled and crushed for oil. As such, it forms an important ancillary part of cotton-seed oil industry. If the seeds are run through the mill only once, the linters are styled as "mill run". The delinting process is generally done twice and



An Agricultural Exhibition was organised last month in Sirkali South Block. Sri V. Karthikeyan (left) Collector of Tanjore is seen inspecting vegetable section.



Sri M. Bhaktavatsalam, Minister for Home, declared open the After-Care Home at Vellore in the second week of June. Srimathi Lourdhammal Simon, Minister for Local Administration also participated in the function.

the linters obtained graded as "first cut" and "second cut". The linters are usually "purified" by treatment with caustic soda solution to remove fats and waxes and bleached by passing repeatedly through chlorine solution before it is finally washed and dried. The resultant product is turned out in loose form or into sheets before being chemically processed. The "first cut" linter is mostly used in chemical industry for the manufacture of acetate-rayon, paper and lacquer. The principal uses for the intermediate grades of "mill-run" linters are found in the felt-trade, stuffing pillows and cushions. About 40 to 200 lb. of linters are obtained from a ton of cotton seed, depending upon variety and efficiency of the delinting machinery, etc. The linters are packed in bales of 600 lb. each. Official standards for grade and staple have been established for these also like cotton lint in U.S.A.

It is reported that annually 50 million dollars worth of linters are produced in U.S.A. On the basis of one million tons of cotton seed, it is estimated that about 25,000 tons of linters may be extracted from the cotton seeds produced in India. This will provide a substantial additional income to the cotton industry and enable the crushing of cotton seed for oil, which will meet to a considerable extent the oil shortage in our country. The development of the above industries in this country, is engaging the attention of the Planning Commission and enterprising Industrialists as well.

(Continued from page 22)

natural jungle growth in these areas. The cutting of grass is proposed to be allowed after the plantations are at least three years old and are completely stabilised.

During the Plan period, 5,000 acres will come under this Scheme in Chingleput and 3,000 acres in Cuddalore forest divisions. The cost of the scheme in the current year is Rs. 4.38 lakhs. Seven Rangers and twenty-one Foresters are employed for the scheme and the cost of planting is only about Rs. 32 per acre.

Vandalur area on the Kelambakkam Road and the Kattur area on the Tirukkalukundram Road are over 500 acres each and the total number of such blocks will be 22 in the two forest divisions.

The planting was done last August and September departmentally by the Forest Department. The plants were planted in rows at 33 feet intervals with an interspacing of about 16½ feet. Convenient roads have been laid out with watching sheds on nearby hills. Sri Krishnaswami the Chief Conservator explained that 97 per cent of the plantings have come out successful and where they failed they were replanted. The stand of the plants was excellent. The operations are carried out on economic lines and this is the first project anywhere in India where cashew has been raised as forest plantation.

(Continued from page 17)

Todas with their buffalo-cult, the food-gathering Kadars of Cochin and the Chenchus of Andhra; the Khonds, the Savaras and the Gadabas with their bison dance and the picturesque Lambadis of Telengana. Besides these, other exhibits such as dress, ornaments, weapons, writing implements, musical instruments and ritual objects enable us to understand the wealth and diversity of rural and tribal arts and crafts.

National Art Gallery.

The opening of the National Art Gallery by the Prime Minister of India in 1951 synchronised with his inauguration of the Centenary Celebrations of the Museum. Exhibited in this gallery are some of the finest bronze sculptures of Southern India. Among these are the well-known dancing Siva of Tiruvalangadu and the exquisite Rama group. Paintings of the Rajput, Moghul, Ravi Varma, Andhra and Tanjore Schools are exhibited besides the works of some contemporary artists and sculptors such as Shri D. P. Roy Chowdhury. South India has been famous for its wood carvings, ivory carvings, brass lamps and brassware, and printed textiles, specimens of which are exhibited in the National Art Gallery.

The research publications of this Museum maintain international standards of scholarship and have built up extensive exchange relations with most foreign countries.

AFTER-CARE HOME, VELLORE

In the scheme of Social welfare, Government of Madras place great emphasis in rehabilitating socially disgraced men and women. Towards this end After-Care and Correctional Homes are started to make the inmates learn a useful trade and become economically independent on leaving the Home.

The After-Care Home at Vellore is one such institution. The Home started three months ago has about a dozen inmates though there is provision for a hundred. The question of starting suitable industries for the inmates of this Home is under the consideration of the Government. In the meantime the inmates are taught Appalam Making, Spinning and Embroidery. The goods produced find a ready market even within the departmental institutions.





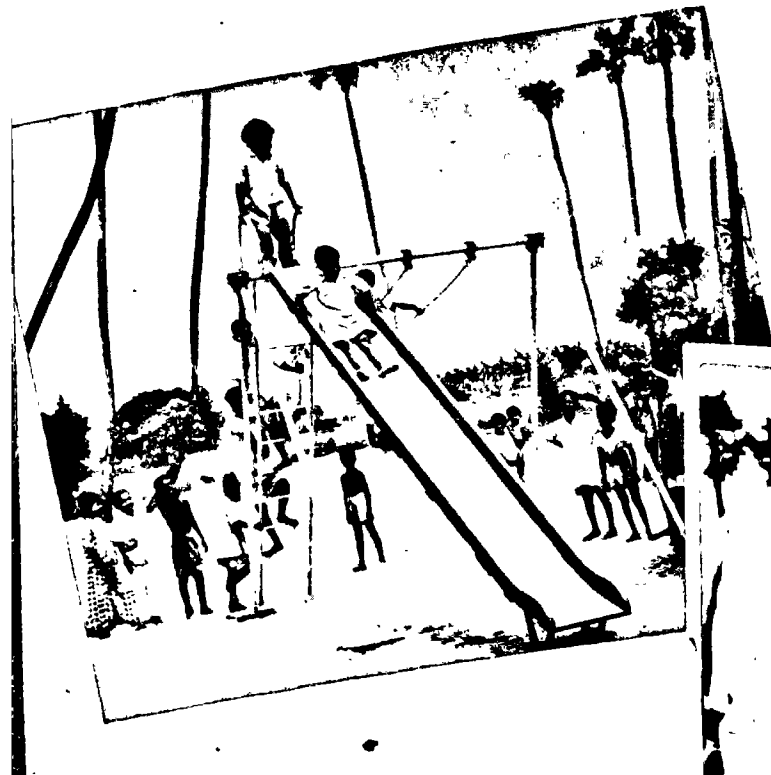
POLICEMEN BUILD HOUSES FOR THE POOR

KATTUPAKKAM, a village in Sriperumbudur taluk, selected by the Madras City Police eight months ago for rendering assistance in the development work is now differently. Where there were dark and dinghy and insanitary huts now stand neat durable houses.

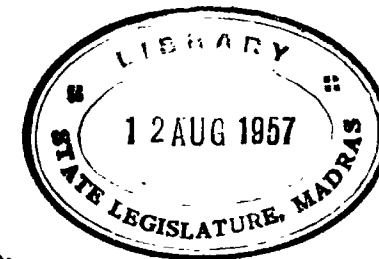
Marshy and shrub covered land became a pucca road. The village children have an up-to-date playground for their use.

Twenty houses built by the ceaseless efforts of the policemen in the Harijan quarter of the village were given away to the Harijans by Sri M. Bhaktavatsalam, Minister for Home, at a ceremony held at Kattupakkam on July 15. The houses were estimated to cost Rs. 11,000 and the road Rs. 1,500.

Sri K. R. Shenoy, Deputy Commissioner of Police (Crimes), was in charge of the work.



Price, 20 Naye Paise.



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August 1957

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Back cover page : The temple of Goddess Kanyakumari at the land's end of India. On Full Moon days vast crowds of pilgrims cluster around this place for worship and to observe the unique spectacle of the sun-set and moon rise simultaneously at the dusk of the day.

Madras in the Struggle for Independence

By Dr. B. S. BALIGA, Curator, Madras Record Office.

I propose to narrate here in a few pages the story of our national struggle from the time of its commencement to the time of its culmination. This story is based solely on the official archives of the Government and its brevity, I need hardly say, is due not to the lack of materials but to the want of space.

The dawn of nationalism in Madras began more than a century ago. It was heralded by a few intellectuals of this State who formed themselves into bodies like the Madras Native Association and the Madras Hindu Debating Society and who, evincing an ardent desire for administrative and political reforms, gradually won the sympathy and support of many people. As early as 1852 when the British Parliament was considering the question of the renewal of the East India Company's Charter, they sent a petition to the Parliament detailing the grievances of the people and pressed for the appointment of a Royal Commission to redress them. They also pressed for the appointment of the elected representatives of the people to the Imperial and Provincial Executive Councils. They repeated their demands in 1853 and, in stronger terms in 1855, even after the passing of the Charter Act of 1853 which gave a fresh lease of life to the Company's administration. In their petition of 1855, which was discussed and approved at a public meeting held in Madras, they bitterly complained of the 'unchecked career of misrule and oppression' of the Company's Government, demanded direct Government by the Crown and emphasised the imperative necessity of making that Government 'constitutionally responsible to the people of the country.' Their civilisation and education, they said,

eminently fitted them to take a proper share in the administration of their own country.

'Mutiny' and Madras State.

Then came the so-called 'Indian Mutiny' of 1857. It burst like a bomb-shell in Northern India causing widespread political and military upheavals. But in Madras, it produced hardly any repercussions. The explanation for this is to be found in the fact that the people of this State showed no inclination to gain their political ends through violence. If they had any such inclination, they would doubtless have tried to make capital of the convulsions that were then shaking the very foundations of British rule. But they did no such thing. On the other hand, as will be presently shown, they sought to secure political reforms through peaceful and constitutional methods.

When, however, the disturbances broke out in Northern India, everything looked dark and gloomy to the Madras Government. They found that their military resources were quite inadequate to deal with any serious situation, having had then stationed most of their forces at Hyderabad, Nagpur and Mysore. They were afraid that at any moment Hyderabad and Nagpur might flare up, the former because of its religious sympathy with the Moghul Emperor and the latter because of its annexation made by Dalhousie in 1853. They were also afraid that in the Madras City itself the population, especially the Muslims, might give trouble because of the abolition of the Nawabship of the Carnatic which had just then been made (1855). They were equally afraid that rebellions might be stirred up everywhere, and

especially in the army, by disaffected persons and emissaries from Northern India. They, therefore, brought into operation the provisions of Act XIV of 1857 and invested the Sessions Judges of all districts with powers to try offences against the State.

Small incidents.

But actually nothing serious took place either in the present, or in the former composite Madras State. Some copies of a proclamation and letters urging the Nizam and his Minister to begin a holy war against the English were seized from some Muslims in Madras City. Some minor disturbances caused mostly by private disputes occurred in Rajahmundry and were easily suppressed. A green flag and a proclamation urging the slaughter of the English were seized from some Muslims in Masulipatnam. A few bands of Rohillas crossed the Nizam's territory and attacked and plundered a couple of towns and villages in the Krishna, Cuddapah and Kurnool districts. A Moplah rising which was meditated in Malabar was nipped in the bud and a Maharashtra inroad which was made into Canara was repelled. These were the only political repercussions. Nor was there any, save one, military repercussion. As is well known, in spite of its weakness in military resources, Madras sent out English as well as Indian troops to Northern India on a summons from Canning, the Governor-General. All these troops embarked without the least murmur and played a small part in the military operations in the north. One troop alone of the Madras Army, 8th Light Native Cavalry, showed disaffection. On their march from Bangalore to Madras, from where it was intended to embark them, the

3

"The loyalty to constituted authority did not by any means make them blind to their political advancement . . . they never lost sight of their main demand namely that of responsible Government . . ."

The Press began to criticise the policies of the Government. It described the Salt Tax as 'the most unjust and cruel of all the taxes' . . .

men of this troop first manifested hesitation and finally absolutely refused to embark unless they were granted the old rates of pay and pension which had been altered in 1833. This troop was disbanded and its disaffection, it is clear, arose not from political but from mercenary considerations.

The Demand for Responsible Government.

Throughout the course of the disturbances in Northern India, the people from almost all districts of this State including the citizens of Madras, sent loyal addresses to the Government deploring and condemning the acts of violence committed in the north. Some even sent subscriptions unsought in aid of the relief of sufferers. But this loyalty to constituted authority did not by any means make them blind to their political advancement. They welcomed the abolition of the East India Company's rule and hailed the direct assumption of the Government of India by Queen Victoria. But they never lost sight of their main demand, namely, that of responsible Government, and pressed for it whenever opportunities presented themselves. Thus, in 1859, when Trevelyan the most popular Governor of Madras since Munro, was recalled by the Secretary of State on account of his differences with the Government of India, they reiterated, in their farewell address presented to him (signed by more than 7,500 citizens), their insistent demand for responsible Government. And the reply that he made must have given them some hopes and also some food for reflection. For, this is what he said: "You say that you had hoped to have seen under my administration the introduction of representative government. . . My answer is—Qualify yourselves for representative institutions and they will be sure to come in good time. You are united under the common protection of the British Crown with a free people who have never grudged to others a participation in the political advantages

which they themselves enjoy. The real delay is on your part. Cultivate the literature of England which is instinct with the spirit of self-government. Learn by our example how to work representative institutions, for this is by no means an easy task and several famous nations have failed in the attempt. Above all things, strive to attain to a high moral standard. Public morality, without which national government is impossible, is only the aggregate of each man's individual character. Truth, justice, scrupulous fidelity to engagements, habitual preference of public to private interests, are the qualities which elevate a nation and enables it to conduct its affairs with advantage."

But the wheels of Juggernaut rolled on and no sign of political reforms appeared anywhere on the horizon though some attempts were made to foster local self-government institutions by the introduction of the Towns Improvement Acts of 1865 and 1871, the District Municipalities Act of 1884 and the Local Boards Acts of 1871 and 1884. These Acts created municipalities and local boards which contained, besides official members, at first a few of the nominated, and subsequently some of the elected members and entrusted to these institutions the management of local affairs such as sanitation, roads, schools, etc. It was hoped that they would provide ideal training grounds for statesmen and legislators in the larger spheres of responsible government. But the responsible government never came. The only thing that came therefore was political agitation.

The Press speaks out.

This agitation was started with some vigour in Madras soon after the inception of the Indian National Congress (1885). By this time several newspapers in English as well as in Indian languages had come into existence both in the city and in the districts

and these became no mean instruments in the hands of nationalists. Thus in 1886, for instance, the Press began to criticise the then policies of the Government. It described the salt tax as "the most unjust and cruel of all the taxes imposed on the country". It assailed the Income-tax and said that it should be imposed not on the Indians but on the English in England inasmuch as the revenue derived from it "was devoted to the benefit of the English in strengthening the defences of India in which they alone were interested". It advocated the imposition of high duties on English goods in order to protect and foster Indian industries. It demanded the expenditure of not less than one-tenth of the Indian revenues on education. It attacked the conduct of several officers, including that of the Governor. It pressed for the representation of more Indians in the Provincial Legislative Council and for vesting that council with complete control over the budget. And, among other things, it insisted on the reduction of salaries of European Civil Servants and on the recruitment of more and more Indians in the Civil Services and the army.

Indian National Congress Session in Madras.

The very next year (1887) witnessed the Third Session of the Indian National Congress in Madras. It was presided over by the All-India leader Sri Bhadrudin Tayabji and its members from Madras included leaders like Sri T. Madhav Rao, Sri S. Subramania Ayyar, Sri Rungiah Naidu, Sri G. Subramania Ayyar, Sri Sabapathy Mudaliar, Sri S. A. Swaminatha Ayyar, Sri P. Somasundaram Chetty, Sri C. Vijayaraghavachariar, Mr. Erdley Norton and Mr. A. O. Hume. It passed a series of resolutions stressing the necessity for the expansion of the Imperial and Provincial Legislative Councils, for the separation of the Judiciary from the Executive, for

An Unwanted Statue in the Madras Museum— A Link with 1857

By Dr. A. AYYAPPAN, Superintendent, Government Museum, Madras

One morning in November 1937 we were surprised to see a gigantic bronze statue shrouded in canvas lying under a tree on the grounds of the Madras Museum. The Public Works Department had done a fine job the previous night, starting work after midnight, and the statue of General Neill which dominated Mount Road at its junction with the old Madras Club Road (where now there is a traffic island) was brought down from its high pedestal and removed to the Museum, to the surprise of many to whom the statue had become an eyesore. The Congress Government who had then assumed office in Madras did not want to oppose the satyagraha

against unpleasant memory of this British hero of 1857, but at the same time, they did not want to outrage the feelings of the British. The Neill satyagraha was very brief; the satyagrahis had time only to mutilate the nose of Neill in the plaque on the pedestal representing the siege of Lucknow.

Dr. F. H. Gravely who was then Superintendent of the Madras Museum did not like to have this statue deposited in the Museum. He said: "A museum should not be a miscellaneous collection of curiosities but an educational institution. The arrangement of its exhibits has therefore to be

carefully planned. If we had historical gallery, such a statue . . . could be suitably be placed in it . . . The arms gallery is the only existing gallery in which such a statue would not be utterly out of place." Government however decided to treat the statue as a historical exhibit and arranged to have it placed in a veranda near the arms gallery. The entrance to this veranda was covered with wire mesh and the statue of Neill placed with its back facing the right.

The president of the Madras Club asked for the statue to be presented to it but Government obviously were not inclined to oblige them.

The biographical sketch.

The Government press communique, dated 15th November 1937 ran as follows :—

The Government of Madras have decided in deference to public sentiment as expressed from time to time to order the removal of General Neill's statue from its present site and its preservation within the precincts of the Government Museum, Madras.

The legend on the pedestal says that the statue was erected by public subscription in 1860 and goes on to give the following biographical particulars :—

James George Smith Neill, C.B.

Aide-De-Camp to the Queen.

Lieutenant-Colonel of the Madras Fusiliers.

Brigadier-General in India.

A brave, Resolute, Self-Reliant Soldier.

Universally Acknowledged as the First



Bronze statue of Neill—formerly on Mount Road, now in the Madras Government Museum

Who stemmed the Torrent of Rebellion in Bengal.

He fell Gloriously

At the Relief of Lucknow,

25th September 1857.

Aged 47.

The statue in bronze is 10 feet 5 inches high and is the work of a good sculptor. The figure is in full uniform. The mustache adds to the resoluteness and grimness in his face.

A metal plaque measuring 3 feet 11 inches by 1 foot 9 inches shows the scene of siege of Lucknow which was the last engagement of the General before he fell. Appropriately enough he is shown in the centre of the scene, riding on his horse. His right arm which is extended in front is in the attitude of directing his men seen arranged on either side to go ahead with the capturing the fort of Lucknow which is seen in the immediate background. Through the gateway can be seen, far in the background, the domes and minarets of a few mosques for which Lucknow is famous. The men in front of General Neill are all shown armed with muskets. A number of men behind are engaged in drawing a cannon. On the ground are seen a number of fallen men, some already

2A

dead, others half dead. The nose and right leg of the figure of Neill have been mutilated by the stayagrahis in November 1937.

Contempt for Indians and sheer inhumanity.

Why is it that, even in spite of our short historical memory, Indians are not able to blot out of their mind the name of General Neill? What was it that forced the young Madras satyagrahis in 1937 to mutilate the bronze representation of this British hero? To give the younger generation of readers a complete picture of the man, I am giving in the second part of this article a biography of Neill written for his British admirers in an official British publication. There was no doubt that Neill was an able soldier, a strict disciplinarian, and religious in the British way. He was well connected and as a young man was patronised by Governor Munro. There were nised by Governor Munro. There were greater soldiers than Neill who led the English army in the campaigns of 1857-58 but for sheer inhumanity none of them, not even John Nicholson could equal Neill. Utter contempt for the Indians which characterised the English in those days found its personification in Neill. Other soldiers and commanders, while sharing in Neill's contempt for the "Black-skin", felt at least in the sub-conscious recesses of their mind that though the Indians were their enemies, they were sustained by the Indians who served them day and night in a thousand ways, without whose co-operation and help, they could not have held their own even for a day. Even in the British army camps there were ten Indians to one Briton!

The wholesale massacres of villagers, indulged in by Neill was described by the English Chroniclers of the "Mutiny" as the "assertion of British manhood." Neill's ruthless action of disarming the 37th regiment at Benarus was opposed by Major Barret who commanded them. "My men are innocent" protested Major Barret who was forcibly removed from the parade ground where his sepoys were being humiliated. Even the Governor-General At Benarus, rows of gallows appeared on Neill's command, and hundreds of people, young and old were hanged. Here are a few contemporary English accounts of how Neill exercised his power.

An Angel among Angles.

"On one occasion, some young boys, who, perhaps, in mere sport had flaunted rebel colours and gone about beating tom-toms, were tried and sentenced to death. One of the officers composing the court, a man unsparing before an enemy under arms, but compassionate, as all brave men are, towards the weak and helpless, went with tears in his eyes to the commanding officer, imploring him to remit the sentence passed against these juvenile offenders, but with little effect on the side of mercy."

"Volunteer hanging parties went out into the districts, and amateur executioners were not wanting to the occasion. One gentleman boasted of the numbers he had finished off quite in an artistic manner, with mango trees for gibbets and elephants for drops, the victims of this wild justice being strung up, as though for pastime, in 'the form of a figure of eight'."

When Neill marched from Allahabad his executions were so numerous and so indiscriminate that one of the officers attached to him "had to remonstrate with him on the ground that if he depopulated the country, he could get no supplies for the men."

Colonel Neill's arrival at Allahabad on June 11 restored the confidence of the English garrison. Lord Canning "who saw clearly that he had now at his disposal one of the men most wanted in such a crisis" wired to Neill to take over command at Allahabad. The march for Allahabad was taxing to Neill. "I had always the greatest confidence in myself" he wrote to his wife and although I felt almost dying from complete exhaustion, yet I kept up my heart.

According to his English admirers, "Neill had neither any credulity nor any tenderness to deter him from striking root and branch at the black soldiery who had betrayed us, and the people who are rising to rebellion on the ruins of the native army."

Harshness was part of his nature. With the aid of the loyal and looting Sikhs of the Allahabad garrison, he sent death and terror to the villages all along the river and further in the



Bronze frieze on the pedestal of the Neill statue

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interior. By June 17, "not a house was tenanted, not a light was to be seen in the City of Allahabad", where from the English had been driven away fifteen days ago.

Brutal orders.

English chroniclers record that the material law and the retribution that went with it meant the mass killing of men, women and children, most of whom were not guilty of any participation in the rebellion. Neill himself recorded:

"I know I have acted with severity, but in all circumstances I trust for forgiveness. I have done all for the good of my country, to re-establish its prestige and power and to put down this most barbarous insurrection."

Neill's instruction to his assistant Renaud makes gruesome reading: Among other things he asked that "all the heads of insurgents, particularly at Fatehpore, to be hanged. If the Deputy Collector is taken, hang him and have his head cut off and stuck up on one of the principal Mohammedan buildings of the town".

About the time Havelock inflicted the first great blow at Cawnpore on Nana Saheb, Neill was promoted as Brigadier-General and was kept in readiness by Commander-in-Chief Grant to take over command from Havelock should anything happen to him. From the 20th of June 1857 Neill was put in charge of Cawnpore. The work of revenge which he perpetrated is described in his own words:

"I wish to show the Natives of India that the punishment inflicted by us for such deeds will be the heaviest, the most revolting to their feelings, and what they must ever remember. I issued the following order, which, however, objectionable in the estimation of some of our Brahminised infatuated elderly gentlemen, I think suited to the occasion, or rather to the present crisis: '25th July 1857'. The well in which are the remains of the poor women and children so brutally murdered by this miscreant, the Nana, will be filled up, and neatly and decently covered over to form their grave: a party of European

soldiers will do so this evening, under the superintendence of an officer. The house in which they were butchered, and which is stained with their blood, will not be washed or cleaned by their countrymen; but Brigadier-General Neill has determined that every stain of that innocent blood shall be cleared up and wiped out, previous to their execution, by such of the miscreants as may be hereafter apprehended, who took an active part in the Mutiny, to be selected according to their rank, caste, and degree of guilt. Each miscreant, after sentence of death is pronounced upon him, will be taken down to the house in question, under a guard, and will be forced into cleaning up a small portion of the blood-stains; the task will be made as revolting to his feelings as possible, and the Provost-Marshal will use the lash in forcing anyone objecting to complete his task. After properly cleaning up his portion, the culprit is to be immediately hanged, and for this purpose gallows will be erected close at hand."

From March to September 26, 1857, the day of his death at Lucknow, the white soldier with the blackest heart carried on his inglorious killing. His excesses were condoned by his superiors including the Governor-General and hero's welcome awaited him, but the bullet of the Lucknow insurgent, deprived the hero's admirers of that celebration. Neill and others of this kind demonstrated the diabolical character of the English conqueror.

Bitter lessons for us.

The history of the so-called Mutiny of 1857 has valuable though bitter lessons for us: What brought victory to the English was their unity, loyalty and organising ability.

"The sturdy iron of national character was so inflexible that the heat of the furnace through which we were passing had not inclined it to bend."

While the English rose up as a man to hold their national flag aloft their chief weakness on the Indian side, in Delhi, was their disunity of which our English critic wrote (1860) as follows:—

Meanwhile, within the walls of Delhi the national character was

shaping events with equal force and distinctness. There were feebleness and irresolution and divided councils in high places, and elsewhere a great antagonism of interests, internecine strife, oppression and misery not to be counted. Whilst the English were clinging together and moving as one man, the inmates of Delhi were dislocated and distracted. The court, the soldiery, the industrial inhabitants were in deadly feud, the one with the other, and as the numbers of our enemies increased, their difficulties also increased.

(To be concluded)

Exhibition of Educational Films

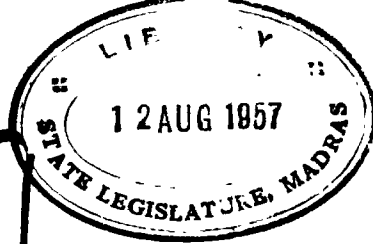
Government have directed that education institutions exhibiting educational films need not obtain licence under section 3 of the Madras Cinemas (Regulation) Act, provided that only non-inflammable films and film-strips are exhibited. In order to qualify themselves for this concession, no advertisement films should be exhibited nor should any admission fee, except to cover bare expenses, should be charged. This order is valid for one year.

All institutions which avail themselves of this exemption will have to maintain a register of the films exhibited and comply with any other directions that may be issued in this behalf by the Government.

Additional Sales Tax on Mill Cloth

Government have directed that the system of deferred payment of the additional sales tax on sales of medium, fine and superfine mill cloth be continued till September this year. This concession is applicable only to dealers in mill cloth who pay Rs. 1,000 or more by way of additional sales tax. Government have also stipulated that while the additional sales tax due for the months of September, October and November may be paid before 25th December, the tax for December onwards must be paid on or before the 25th of the succeeding month.

Indian National Army



By Sri S. A. AYYAR

"... Ultimately, when the Indian people were roused to the reality of the situation, they made a concerted move—and under the flag of Bahadur Shah, in 1857, they fought their last war as free men. In spite of a series of brilliant victories in the early stages of this war, ill-luck and faulty leadership gradually brought about their final collapse and subjugation. Nevertheless, such heroes as the Rani of Jhansi, Tantio Topi, Kunwar Singh and Nana Sahib live like eternal stars in the nation's memory to inspire us to greater deeds of sacrifice and valour."

These inspiring words were contained in the opening paragraph of the historic proclamation of the Provisional Government of Azad Hind, when it was formed outside India's borders, in distant Singapore, on the fateful 21st of October 1943 by one of India's greatest sons, Netaji Subhas Chandra Bose, twice elected President of the Indian National Congress and the Founder of the Forward Bloc.

The Second War.

Netaji Subhas Bose organised Indian National Army under the leadership of his Government and marched it to the Burma-India Border to fight the British Army of occupation in India. This was the Second Front he opened against the British rulers of India. The Second War of India's Independence had already been launched on Indian soil under the leadership of Mahatma Gandhi. The armed fight organised by Netaji Bose from outside India was meant to supplement the heroic non-violent struggle carried on by India's millions under Mahatma

Gandhi's banner. Netaji called this struggle of the Indian people—popularly known as the Quit India Movement of August 1942—the Second War of Indian Independence, the first being the 1857 "MUTINY".

Thus the so-called "Mutiny" provided the stimulating background for the historic battles fought by the I.N.A. on the Indo-Burma Border fronts against the British controlled troops from India.

An outstanding feature of the Indian National Army was the Rani of Jhansi Regiment, named after the Rani Laxmibai of Jhansi. This was the women's wing of the Indian National Army recruited from among the Indian girls in Malaya and other parts of East Asia and officered entirely by Indian women and girls. The heroic role played by Rani Laxmibai of Jhansi in 1857 inspired hundreds of Indian girls in East Asia to abandon their sheltered existence under parental roofs, enlist in the Regiment, undergo hard training in all branches of modern warfare, and march to the front to fight for India's Freedom, shoulder to shoulder with the men of the Indian National Army. The sight of these girls moving towards the fighting front armed with rifles, bayonets and machine guns, was an unforgettable spectacle, which served as an incentive to the male section of the Indian National Army to perform great deeds of valour and self-sacrifice.

A continuous historic process.

In the numerous mammoth gatherings of Indians that Netaji addressed

in East Asia, he was never tired of emphasizing that India's Freedom Struggle was a continuous historic process from 1857. He pointed out that the "Mutiny" failed for lack of organisation and sustained central direction, and urged that they should learn a lesson from 1857 and carry on the fight in a more concerted manner all over India and from outside India too. He was fully convinced that Gandhiji's "QUIT INDIA" Movement inside India was going according to plan. He, therefore, urged Indians in East Asia to do their duty and strengthen the hands of their brothers and sisters inside India.

The saga of the I.N.A. is itself an outcome of the historic process of Netaji's thinking and planning for India's Freedom. A student of world history and of the revolutions that brought Liberation to subject peoples in centuries past, Netaji Subhas Chandra Bose quoted the historic example of the American colonies throwing off the British yoke with the armed aid of France. After a great deal of thinking, he came to the final conclusion that a Second World War was inevitable in 1939; and that would be the opportunity for India to take the armed help of Britain's enemies and win her own freedom. He, therefore, planned to get out of India soon after World War II broke out in 1939. He succeeded by an extraordinary stroke of good luck. The strict vigilance of the police in Calcutta could not prevent his escape in disguise from his home in Calcutta in January 1941. Indians were startled to learn that he had reached Berlin in

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March. From then on, he plunged into the task of organising an armed force with the help of Germany to march it ultimately against the British in India. But this was not an easy task. Indian Army personnel on the Western Fronts, who had been taken prisoner by Germans and taken to Germany, volunteered to form the Free India Army organised by Netaji Bose on German soil. Thus the First Indian Army of Liberation came into being in Europe during the Second World War. It was ready to march all the way from Germany to the Western Frontier of India. Meanwhile, Japan's entry into the World War in December 1941, brought about a dramatic change in the situation as far as Netaji's plans were concerned. Indians throughout East Asia—from Burma to Japan—proclaimed their determination to fight for the liberation of their Motherland and formed Indian Independence Leagues throughout East Asia. The Indian Army personnel,

The Indian Independence Movement reached up to the Burma-India Border; in other words, it reached up to the Eastern Frontier of India, which the British had never considered so vulnerable to attack as the North-West Frontier.

In the twinkling of an eye, the whole strategic situation had changed in favour of the Indian Army of Liberation. The I.N.A. could use Burma as a springboard for an attack on the British Citadel in India. Netaji Subhas Chandra Bose, at the head of the I.N.A., stood astride the Eastern Frontier of India. This was the dramatic change in the situation brought about by Japan's entry into World War II. From the day he assumed command of the overall movement of Indians in East Asia for the Independence of their Motherland on 4th July 1943 till he took off on his last known aeroplane journey from Saigon on 17th August 1945, Netaji toiled night and day

them in advance of India's goodwill, friendship and gratitude in return for the war-time help. Netaji and Tojo thus understood clearly where they stood with each other.

Victory within sight.

According to plan, Netaji proclaimed the establishment of the Provisional Government of Azad Hind; on 21st October 1943, he declared war on Britain and her ally, America, in the name of the Provisional Government; he formed the Rani of Jhansi Regiment composed of Indian women and girls in East Asia, urged the three million Indians in East Asia to come forward and give their all for the cause and also to be prepared to lay down their lives; he expanded the I.N.A. and marched it to the Burma-India border; on the 4th of February 1944, the I.N.A. fired the first shot in its War of Independence launched against the British on the border; the I.N.A., according to plan, was within sight of victory at Imphal and Kohima. Then the tide turned against him; things no longer went according to plan; the rains came down in torrents and disrupted the I.N.A. supply lines; the I.N.A. was in difficulties without supplies and without adequate air support; the reverses began; the I.N.A. fell back; it retreated to Mandalay and towards Rangoon; this was in April 1945; Netaji, as the true commander, wished to remain with his troops and face the enemy in Rangoon in due time. But his Cabinet colleagues and top-ranking generals prevailed upon him to leave Burma and move eastward out of the reach

Historic Sequence to

who had been deserted by the British during their retreat from Malaya and Burma, volunteered to form an Indian National Army. Rash Behari Bose, The veteran Indian Revolutionary Exile in Japan, and Father of the Indian Independence Movement in East Asia, formed a nucleus of the I.N.A. in Singapore in early 1942. But his health was fast failing and he desired to hand over the I.I.L. and the I.N.A. to younger and more vigorous hands.

Netaji Takes Over.

A conference of representatives of Indian Independence Leagues in East Asia, held in Bangkok in June 1942, under the Presidentship of Rash Behari Bose, passed a resolution inviting Netaji Subhas Chandra Bose to come from Germany and take over the leadership of the I.I.L. and the I.N.A. in East Asia. He accepted the invitation and after a perilous 90-day journey in a German submarine rounding the British Isles and the Cape of Good Hope, he reached Japan in June 1943, and Singapore on the 2nd of July 1943. He took over the leadership of the Indian Independence Movement and the Indian National Army on 4th July 1943 at a historic ceremony in the Cathay Cinema Theatre in Singapore.

mobilising the Indians in East Asia for an all-out effort to win India's Freedom.

Aid without strings.

It was always a habit with Netaji to plan his course of action well in advance. His escape from India and reaching Germany when the World War II was on, was according to plan. From the moment he knew he was to go to East Asia from Germany to lead the Indian Independence Movement, he began to plan his course of action. Thus, immediately on arrival in Tokyo after his perilous 90-day submarine journey from Germany, he held a series of conferences with the Japanese Premier, General Tojo and other top-ranking leaders of the Japanese Government and armed forces and settled with them in detail the type and volume of aid expected of them in his fight for his country's freedom. He satisfied himself about the bona fides of the top men of Japan and made it clear to them beyond the shadow of a doubt that their aid should have no strings attached. He would not compromise India's sovereignty. Japan was not to entertain any ambitions, territorial, military, economic or political, in India when she attained her freedom with Japanese help. He would certainly assure

1857 Uprising

of the enemy, and carry on the war. With great reluctance, he started on his historic retreat on foot from Rangoon to Bangkok, which he did in three long and arduous weeks. He refused to take a plane which would have done the journey in two and half hours. From Bangkok, he moved on to Singapore in June 1945 and for one whole month, pleading to India night after night, pleading with the leaders inside India to spurn the Wavell offer. But the beginning of August and the atom bombs on Hiroshima and Nagasaki saw the end of Japanese resistance. Japan officially surrendered to the Allies on August 15.

(Continued on page 35)



The first meeting of the Southern Zonal Council was held at Raj Bhavan, Madras, under the Chairmanship of the Union Home Minister Sri Govind Ballabh Pant in the second week of July. Chief Ministers and other Ministers of Madras, Andhra and Kerala and high officials of these State Governments and Planning Commission were also present. Chief Minister of Mysore also attended the meeting by special invitation.

Facts About the Southern Zone

The southern zone comprises the reorganised States of Andhra Pradesh, Madras and Kerala. It has an area of 171,800 square miles and population of 74.9 million.

The density of population of the zone as a whole is 436 as against the all-India average of 284. Density varies greatly among the three constituent units, being as high as 900 in Kerala and as low as 293 in Andhra Pradesh.

Area—171,800 square miles.
Population—74.9 million.

	First Plan.	Second Plan.
Outlay	Rs. 2,08.33 crores	Rs. 413.8 crores.
Food	10,934,000 tons	14,794,000 tons.
Power-installed capacity ..	470,300 KW	1,293,000 KW.
Literacy	23.1 per cent (all-India average 16.6 per cent).	

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Agriculture is the predominant occupation of the population accounting for about 63 per cent of the total population of the zone. The ratio of agricultural classes to total population in Andhra Pradesh, Madras and Kerala respectively is 67.3, 62.6 and 52.6 per cent. The comparatively lower ratio in the case of Kerala does not mean that the pressure on land is relatively less. Land being scarce in Kerala as compared with Andhra Pradesh and Madras, more people have to depend on means of livelihood other than agriculture. This fact is borne out by the density of population on cultivated land, which is 1060 for Kerala, 860 for Madras and 490 for Andhra Pradesh.

The percentage of the cultivated area to the total area in the zone is 42.46 as against the all-India average of 44. In the zone, only Andhra Pradesh is surplus in food. Kerala and Madras have to depend on food imports from the rest of the country.

Principal food crop.

Rice is the principal food crop of the zone and accounts for 64 per cent of the cultivated area. The main commercial crops are tea, coffee and oil seeds. In Kerala, coconut, pepper, cashewnuts and cardamom are important, particularly as foreign exchange earners. Rubber is also an important raw material in Kerala and Madras.

The zone is comparatively poor in important minerals like iron ore, coal, mica and manganese. However, Kerala is the main source of ilmenite and thorium deposits in the country as a whole. The poverty of essential mineral resources has adversely affected the industrial development of the zone.

Literacy in the zone is relatively high being 23.1 against the all-India average of 16.6. Kerala (particularly the former Travancore-Cochin area) has probably the highest standard of literacy in the country, i.e., 46.4. High literacy coupled with pressure of population on land and lack of essential mineral resources is responsible for the large number of educated unemployed in the zone in general and in Kerala in particular.

First Plan.

The plan provisions and expenditure under the First Five-Year Plan of the

region now constituting the Southern Zone are as follows:—

	Plan provisions. (RUPEES IN CRORES.)	Expenditure.
Andhra	67.13	64.20
Madras *	86.42	85.63
Travancore-Cochin	31.28	26.11
Telangana area of Hyderabad†	23.50	17.24
Total ..	208.33	193.16

* Includes South Kanara district now transferred to Mysore.

† Calculated roughly at 50 per cent of the provisions of the Hyderabad Plan.

The First Plan laid emphasis on Agriculture and Irrigation and Power. The expenditure on these two heads of development together accounted for 75 per cent, 74 per cent and 70 per cent of the total expenditure in Andhra, Madras and Travancore-Cochin respectively.

The irrigation part of the Tungabhadra Project was completed by the end of the First Plan and provided irrigation to an additional area of 50,000 acres of Andhra and Mysore.

The total irrigated area in the zone is reported to have increased from 109.47 lakh acres in 1950-51 to 126.34 lakh acres in 1953-54.

Food production also recorded an increase from 81.91 lakh tons in 1949-50 to 109.34 lakh tons in 1955-56 an increase of 11.44 lakh tons in Andhra Pradesh, 13.65 lakh tons in Madras and 2.34 lakh tons in Kerala.

Second Plan outlay.

Outlay of States in the First and Second Plans are as follows:—

	First Plan * (RUPEES IN CRORES.)	Second Plan * (RUPEES IN CRORES.)
Andhra	67.13	174.5
Telangana area of Hyderabad.	23.50	
Madras	86.42	152.3
Travancore-Cochin	31.28	87.0
Total ..	208.33	413.8

* First Plan figures relate to pre-reorganised States of Madras and Travancore-Cochin while those of the Second Plan represent the Plan outlay for reorganised States of Andhra Pradesh, Madras and Kerala as finally settled.

The estimated resources of the States in the zone available for the Second Five-Year Plan are:—

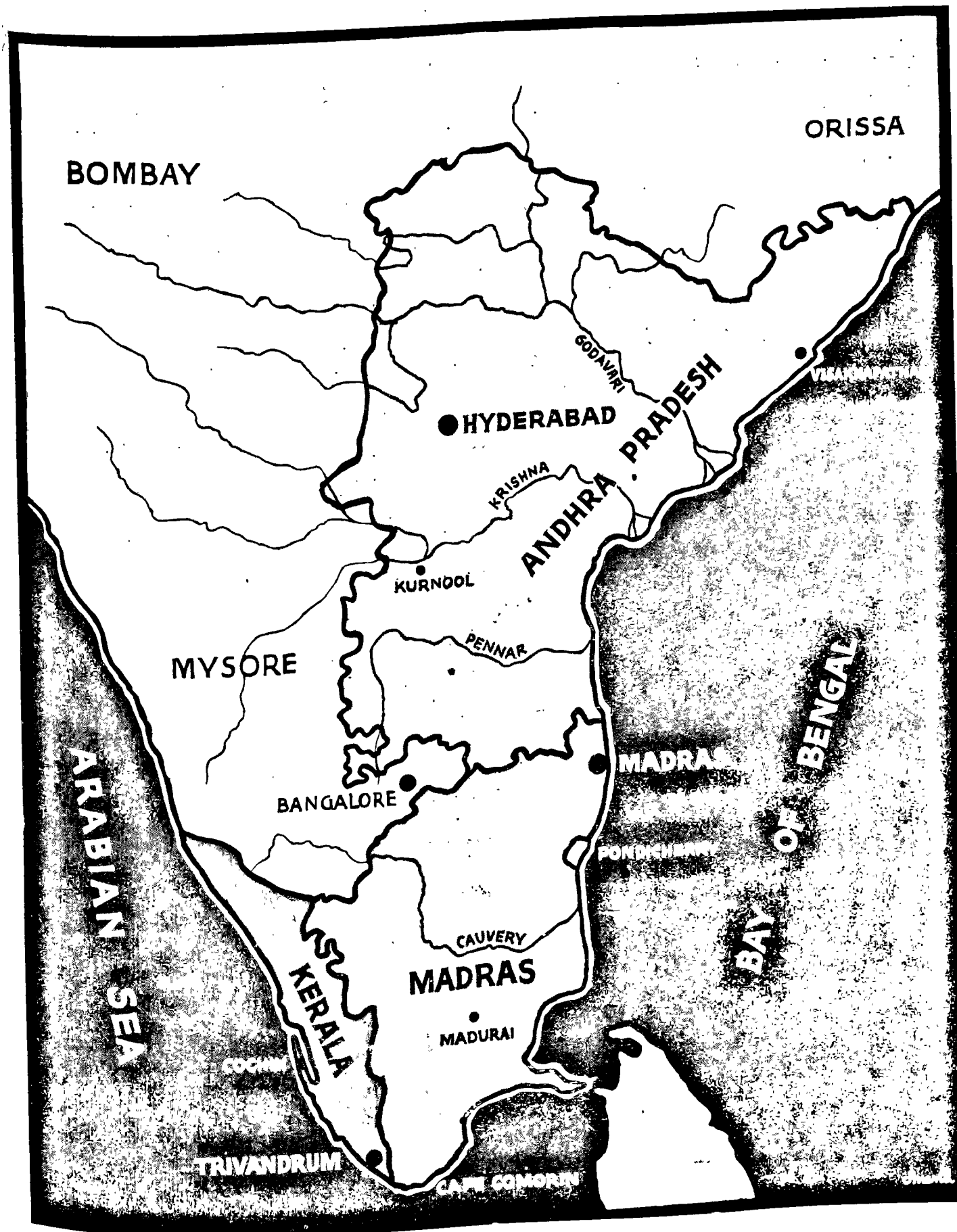
(1)	Total resources on revenue account. (2)	Total resources on Capital account. (3)	Total contribution for the Plan. (4)	Estimated gap in resources. (5)
		(RUPEES IN CRORES.)		
Andhra Pradesh ..	19.0	34.5	53.5	121.0
Madras	45.4	33.1	78.5	73.8
Kerala	23.4	24.2	47.6	39.4
Total ..	87.8	91.8	179.6	234.2

State requirements.

In formulating programmes under the Second Plan, the particular problems and needs of individual States

were taken into account. Thus, the programme of food production aims at an additional supply of 3.26 million tons for the zone as a whole. The

The Southern Zone



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programmes now envisaged should make the region self-sufficient in respect of food.

Additional irrigation facilities will be made available to about 16 lakh acres of land during the Second Plan period. The generation of power during the same period would be 12.9 lakh KW, i.e., about three times that of the capacity under the First Plan. About 6,600 miles of roads will be added during the Second Plan period.

The Machkund and Nagarjunasagar are two major river valley projects in the Southern Zone. Machkund is a joint venture of Andhra and Orissa and will generate 51,000 KW of power.

(1)	(2)	(3)	(4)
	(RUPEES IN CRORES.)		
Agriculture and Community Development.	6.99	5.99	2.75
Irrigation and Power	15.97	13.73	6.11
Industry	2.51	3.05	1.72
Transport	1.19	1.22	1.20
Social Services	6.48	7.72	5.28
Miscellaneous	1.05	0.31	0.47
Total	34.19	32.02	17.53

The table below gives a broad picture of the financing of the outlay in 1957-58.

(1)	(2)	(3)
	States' own resources.	Central Assistance.
	(RUPEES IN CRORES.)	
Andhra Pradesh	9.7	24
Madras	14.0	18
Kerala	9.5	8
Total	33.2	50

The State Governments are now to work out the physical targets proposed to be achieved in 1957-58. As against the five-year target of additional food production of 32.6 lakh tons, it is envisaged that in 1957-58, an additional production of 9.1 lakh tons will be raised. In Andhra Pradesh, the expenditure on Nagarjunasagar is being stepped up so that the scheme is completed as early as possible and provides irrigation facilities to a larger area.

Central projects.

Besides the projects and programmes included in the State Plans, the Central

When the first stage of the Nagarjunasagar project is completed, it will irrigate 19 lakh acres of land. The Kunda Hydro-electric project in Madras will not be completed during the Second Plan but is expected to generate 1.45 lakh KW of power by the end of the Plan period.

Development Programme, 1957-58.

Schemes which are calculated to earn or save foreign exchange or to increase agricultural production or remove transport bottlenecks are to be given priority. The programmes of the States in the zone for the year by major heads of development are:—

Andhra.	Madras.	Kerala.
(2)	(3)	(4)
(RUPEES IN CRORES.)		
6.99	5.99	2.75
15.97	13.73	6.11
2.51	3.05	1.72
1.19	1.22	1.20
6.48	7.72	5.28
1.05	0.31	0.47
34.19	32.02	17.53

Work outstanding at the Integral Coach Factory at Perambur (Madras) will be completed in the Second Plan and from 1959 onwards the factory will produce 350 coaches. It is also proposed to establish a D.D.T. Plant in Kerala. The Second Plan provides for further expansion of the Hindustan Shipyard at Visakhapatnam at an estimated cost of Rs. 4.79 crores.

New industries.

On the basis of studies made so far, Mettur (Madras), Nilgiris (Madras) and Shakarnagar (Andhra Pradesh) are considered to be appropriate locations for developing the production of aluminium, raw films and newsprint respectively. The National Industrial Development Corporation is processing these projects in consultation with foreign entrepreneurs showing interest in their establishment. Reorganisation of the Praga Tool Factory at Hyderabad is another important scheme under active consideration.

The Central Government proposes to establish two printing presses in the South, one at Coimbatore and the other at Koratti (Kerala State). Sanction for the requisition of land at the two places at an estimated cost of Rs. 1,19,000 and Rs. 2,38,300 respectively has already been issued. These presses are expected to start functioning by the end of the Second Five-Year Plan period.

Southern Zone for Rice Created

The Government of India has created a Rice Zone in the South, comprising the States of Andhra Pradesh, Madras, Mysore and Kerala. Rice will now move freely within the zone but export from or import into it will be restricted.

It is estimated that Andhra Pradesh has a surplus of about 6 lakhs tons, while the deficit of the other three States is of the order of 4 lakhs tons. Thus, there will be a net surplus of about 2 lakhs tons of rice in the zone. Arrangement is therefore being made to allot suitable export quotas from Andhra Pradesh to Bombay and West Bengal to enable sale of superior varieties of rice in these principal consuming markets.

The lands end of India.... KANYAKUMARI'S PAST AND PRESENT.

Kanyakumari District forms part of the ancient kingdom of Venad that existed in the Sangam era. Subsequently Verad came to be known as Travancore, an anglicised form of Thiruvithamcode or the abode of prosperity. The Rulers of Travancore who trace their descent from the famous Chera Dynasty ruled the country with Padmanabhapuram in Kalkulam taluk as their capital. Marthanda Varma, the maker of modern Travancore who ascended the throne in 1729 A.D. conquered the various Rajas who were ruling over the territories lying north, and extended the boundary of Travancore. He then shifted the capital from Padmanabhapuram to Trivandrum to suit the requirements of his expanding dominion. From then onwards the area now constituting the Kanyakumari District became a part of the Travancore State.

The district comprises Vilavancode, Kalkulam, Thovala and Agasteeswaram taluks, and is bounded on the north by Tirunelveli district, east by Tirunelveli district and Bay of Bengal, west by Neyyattinkara taluk of Kerala State, and in the south by the Arabian Sea.

The district has an area of 645.5 square miles and a population of 826,380. More than eighty-seven per cent of the people speak Tamil. The administrative set up of the area is slightly different from that obtaining in the Madras State. Each taluk is divided into revenue villages called Pakuthies which are under the charge of village officers called Proverthiars, who are fulltime Government servants.

There are extensive palmyrah topes in the plains of these taluks, and beautiful coconut topes near the sea coast and along the banks of the rivers. Jack, Anjile, Mango, Tamarind, Cashew and other trees grow largely in the interior. Plantains and tapioca of different varieties are cultivated on a large scale particularly on hill slopes. The tract of the country comprising of Agasteeswaram and Thovala taluks commonly known as Nanjilnad is famous for its

paddy fields. There are salt pans from early times in Agasteeswaram and Kalkulam taluks.

Rare sands and rivers.

The sea sand in and around Cape Comorin and near Manavalakuruchi in Kalkulam taluk contains valuable "Rare earth", minerals such as monazite, zircon, and ilmenite.

Two rivers Kothiar and Pazhayar flow through this district. The Kothiar which is also known as Thambraparni river, rises on the southern extremity of the Muthukulivayal, flows through the two taluks of Kalkulam and Vilavancode and reaches the sea at Thengapatnam. The total length of the river is 37 miles. The Pazhiar flows through the taluks of Thovala and Agasteeswaram in a south-easterly direction and falls into the Manukudy lake after a course of 23 miles.

The river Kothiar is dammed at Pechipara and the Paraliar, which is a tributary of Kothiar is dammed at Perinchani and these two projects are designed to irrigate about 65,000 acres of paddy fields in Nanjilnad and in Kalkulam. In the areas not commanded by these projects irrigation is carried out by means of channel-fed or rain-fed tanks.

Industries.

There is no large scale industry in the district but cottage industries contribute much to the prosperity of the people. Handloom-weaving is a major industry pursued by many in all the taluks. The manufacture of fine cloth with lace or silk borders of different designs is mainly found in Kottar and Eraniel in the Agasteeswaram and Kalkulam taluks respectively. Jaggery-making, and weaving of mats out of Palmyra leaves, are mostly confined to Kalkulam and Vilavancode taluks. Lace-making is an important cottage industry, organised and conducted by

the Christian Missionary institutions, providing employment to a large number of women. Poultry-keeping and Bee-keeping are carried on in the Y.M.C.A. at Martandam and its surrounding places. The martandam Rural Recreation Centre has an all India reputation. It has to its credit a lot of pioneering work in the field of rural uplift and has produced inspiration and lead to many places in and outside India. Fishing and fish-curing are important sources of livelihood for the people of the coastal areas.

Education.

Primary education is compulsory, and free mid-day meals are provided to the poor children. Most of the primary schools are Government-owned. There are Government and private Secondary schools. The private schools are of two categories, 'acceded' schools and non-acceded schools. In the acceded schools 80 per cent of the fees collected have to be remitted to the Government Treasury, and the teachers' salaries which are on a par with the Government school teachers are drawn from the Treasury by the Headmasters with the sanction of the Inspector of Schools, and disbursed to the teachers. The managers are expected to use the 20 per cent of the fees collected for maintenance, sports, games, libraries and provident fund contributions. There are two first grade colleges at Nagercoil. There are also a number of training schools for teachers.

The four taluks contain many relics of archaeological and historical interest. Many inscriptions have been recovered from temples and palaces at Cape Comorin, Suchindram and Padmanabhapuram. Other places of similar interest are the rock-cut temples at Chitrharal and Uthachikotta in the Vilavancode taluk.

The Ancient Glory.

Padmanabhapuram was the capital of Travancore until about a few centuries

ago. It is now the Revenue Divisional Headquarters. It is surrounded by a square stone fortification. The Maharaja's Palace contains mural painting believed to be three centuries old. There is a cot made of numerous types of medicinal wood on which the Maharaja used to sleep. Another attraction in the palace tower is a clock made by a local blacksmith about four hundred years ago.

Cape Comorin is the "land's end" of India. This is a famous place of pilgrimage and is the only place where one can enjoy the unique sight of sunrise and sunset at the confluence of the three seas. The very ancient temple dedicated to the Virgin Goddess Bhagavathi is of great archaeological importance. Another notable sight is the eighteenth

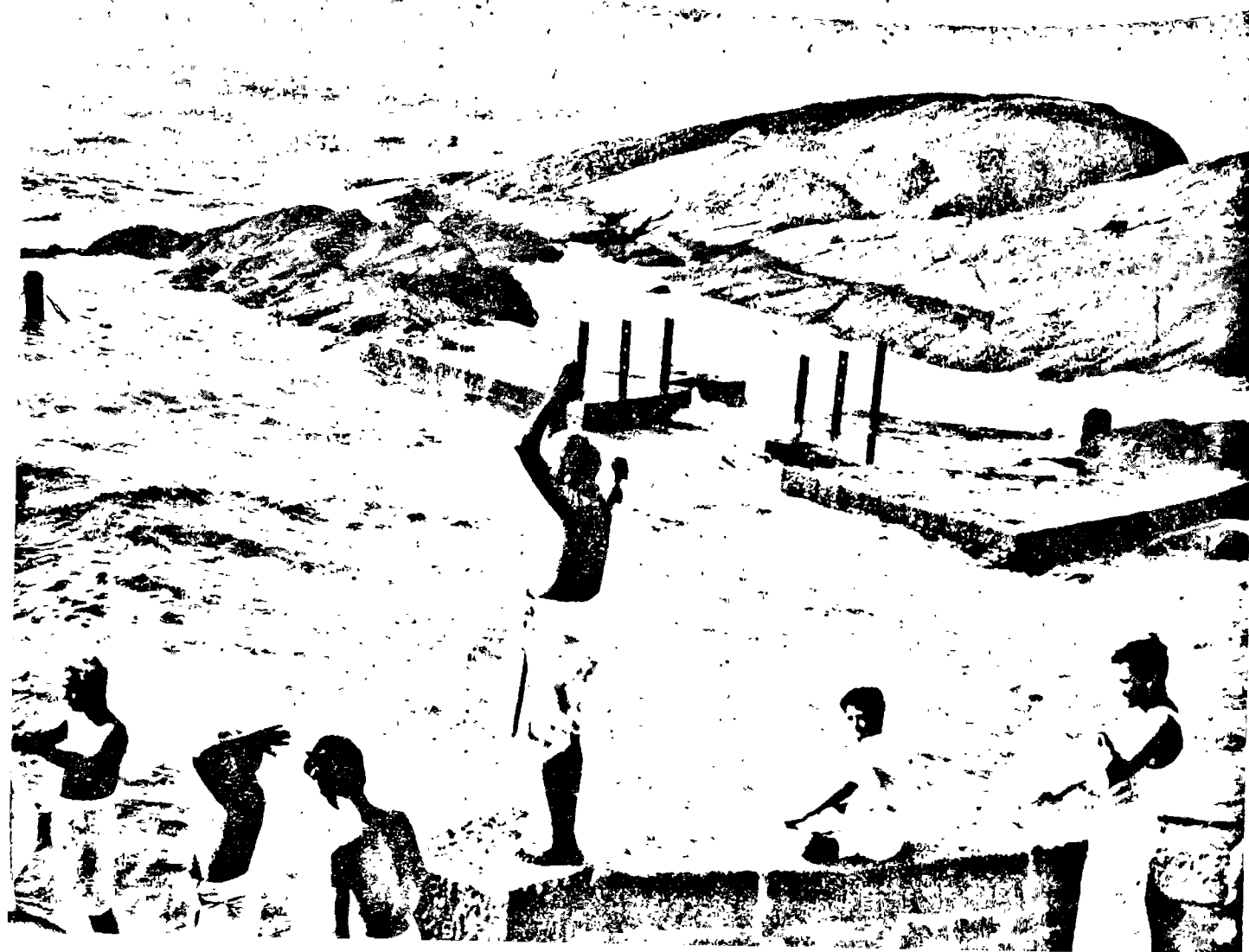
century fortress of Vattakkottai overlooking the sea. The other important towns are Nagercoil which is the district headquarters, Suchindram, Colachel, Kuzhithurai, Martandam, Thuckalai and Boothapandy. Nagercoil was one of the earliest places where Christian missionaries started their humanitarian activities from the early part of the 19th century.

The car festival in the Suchindram temple, the kodai festival in the Mandakadu temple, and the Thrikkalyanam celebration in the Kumarakoil temple in Kalkulam taluk are the most important Hindu festivals. The Chandanakudam in the mosque at Thuckalai is a grand Muslim festival. The annual festival in the St. Xavier's Church at Kottar is usually celebrated on a lavish scale.

ISI Branch for Madras

The Indian Standards Institution has now set up a Branch Office at Madras, largely for the convenience of the industries located in the southern region. This Branch will disseminate information to the industry regarding standardization and advise those engaged in industry and commerce in implementing and adopting Indian Standards, and will also conduct technical enquiries to give preliminary instructions in connection with ISI Certification Marks Scheme. Its stock of Indian, British, American and IEC Standards will be made available to the public either for reference or for sale. The Indian Standards Institution Branch is located at No. 23, Nungambakkam High Road.

Bathing Pool at the Bathing Ghat at Cape Comorin



Handloom Industry in Kanyakumari District

Kanyakumari District is one of the many districts in India which are important centres of the handloom industry. While there are handloom weavers in all the villages and towns in this district, this cottage industry is concentrated in places such as Kottar, Vadasserai, Elangadei, Eraniel, Palliyadi and Valvachagoshtam. Kottar, which is a suburb of Nagercoil Town, and Eraniel in the Kalkulam taluk have been famous for their handloom textiles, particularly laced cloth, from very early times. In olden days this industry, in this district, was not only meeting the entire cloth requirements of the district, but also exporting large quantities to other parts of India and even to countries abroad. Old records reveal that Kottar was, in olden days, inhabited by a great number of weavers and that cloth of superfine texture manufactured by the weaving colony there was appreciated and admired by distant countries. But it is a well known fact that the fortunes of the industry have been unstable and here, as elsewhere, this industry has had to suffer in the later years for a variety of reasons and to face serious crisis on several occasions. As a result, weavers were thrown out of employment and producers of handloom cloth had to sustain heavy financial losses.

Thanks to the Government of India various measures of assistance are being provided to rehabilitate the handloom industry with the creation of the "HANDLOOM DEVELOPMENT CESS FUND" by the levy of cess on millmade cloth. These measures have really done much good to weavers in rehabilitating them and have encouraged weavers to join weavers' co-operative societies.

There are about 19,260 looms in the Kanyakumari district, of which about 10,000 have been enlisted in the co-

operative fold. Over five-lakhs yards of handloom cloth, valued at about Rs. 3,75,000, are produced monthly here. There are 82 Weavers' Co-operative Societies, and loans towards share capital and working capital amounting to about Rs. 77,500 and Rs. 3,73,700 respectively have already been issued to them by Government. A further sum of about Rs. 2½ lakhs has also been issued during the current financial year. A central depot of the Madras State Handloom Weavers' Co-operative Society has been opened at Nagercoil for the purpose of issuing yarn to weavers' societies and for procuring goods from them. A sales emporium has also been opened at Nagercoil to popularise handloom fabrics. In the emporium handloom

fabrics of superior quality produced in different parts of the State, including Kanyakumari district, are sold at low prices. Arrears of rebate claims amounting to a total of over Rs. 65,000 have been disbursed. Efforts are being taken to popularise handloom goods such as dhoties and towels manufactured here in the rest of the Madras State and to find direct wholesale depots in the consuming areas of the Kerala State.

Supplementary Extension Centres.

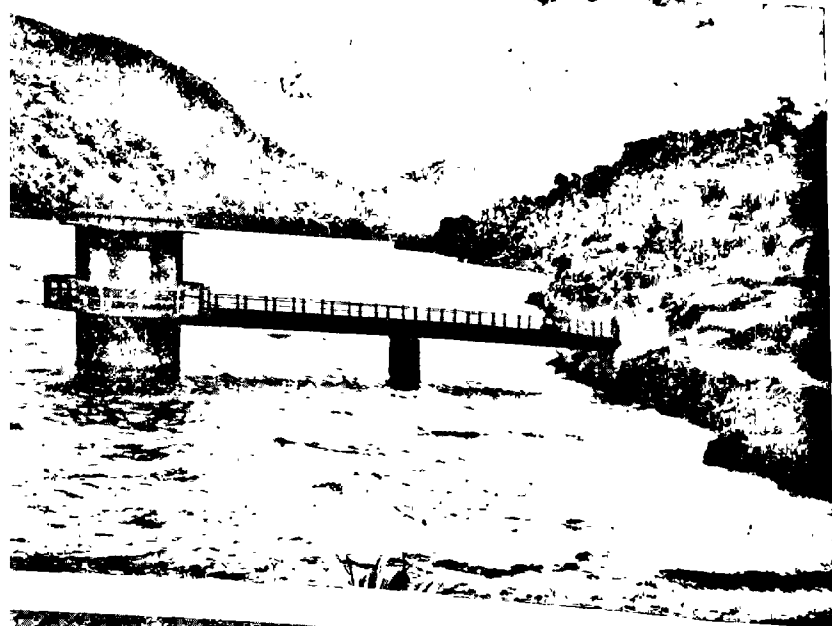
Government have sanctioned the opening of eight Supplementary Extension Centres, in 1957-58 one each in the districts of Chingleput, South Arcot, North Arcot, Salem, Tiruchirappalli, Madurai, Ramanathapuram and Tirunelveli. The Supplementary Extension Centres are set up in the non-key village areas for the utilization of approved breeding bulls produced in the Key Village areas.



A stall at the Handloom Exhibition held recently at Nagercoil



BEAUTY AND SPLENDOUR OF KANYAKUMAR

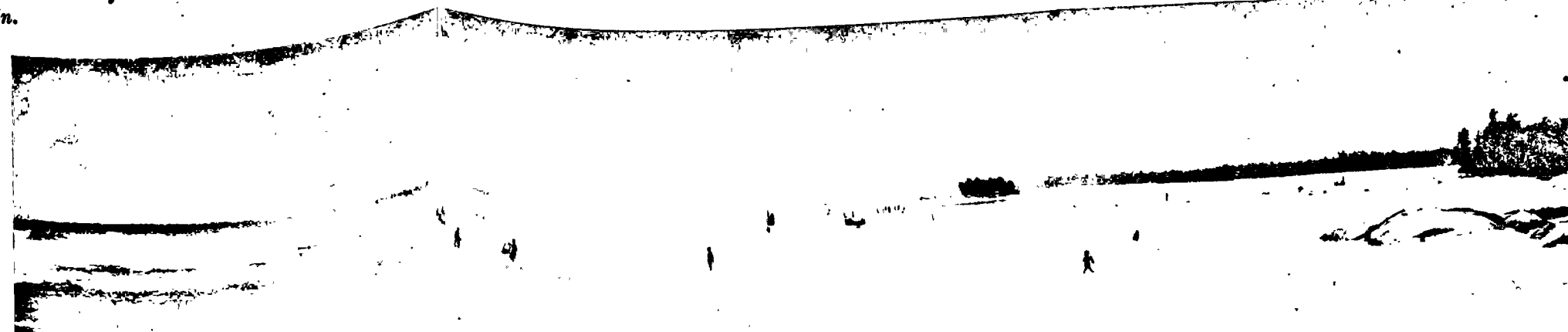
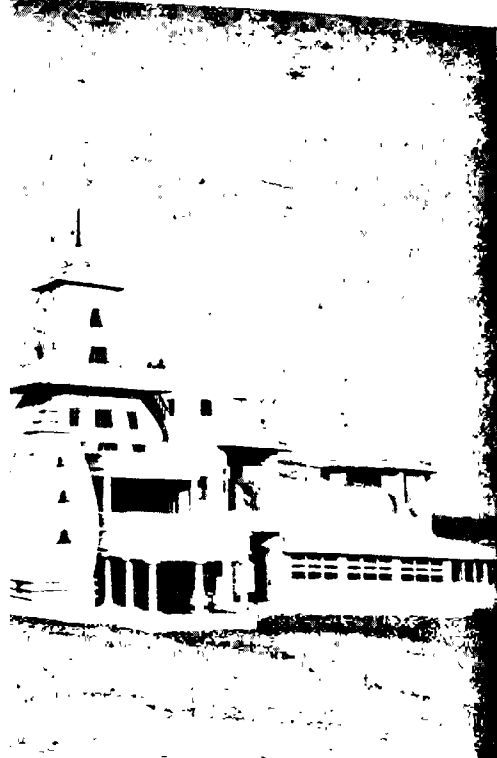


Kanyakumari District abounds in everything that Nature can bestow. Formerly known as the granary of Travancore, it is famous for its vast stretches of paddy fields, rich forests and mineral sands.

The district is packed with many spots of varied charms, the best being the Cape itself. Two seas and an ocean meet here and that is the land's end. It is at this point, one can witness the rising of the sun from the blue waters of the Bay of Bengal and that is the land's end. It is at this point, one can witness the rising of the sun from the blue waters of the Bay of Bengal and that is the land's end.

The pictures in these pages show some of the important landmarks in Kanyakumari—
Left top: A panoramic view of Perinckani Dam. Left centre: Mukkadal Dam. Left bottom: Gandhi Mandapam at Cape Comorin.

Right top: Paddy fields around Aranbodhy Pass.
Right Centre: Rubber plantations.
Right bottom: Thenkapatnam Estuary.
Centre: A.V.M. Canal, Kollencode.



Increased Participation of People in Community Development Work

Rs. 10 Lakhs in Cash and Labour Contributed

The participation of the people in increasing measure in the development works was in evidence during the quarter January to March 1957. The people in the block areas contributed a sum of Rs. 5,53,000 by way of labour and Rs. 5,50,000 by way of cash and other contributions during this quarter.

Rural electrification was extended to 138 villages and 52 schemes estimated to cost Rs. 40.81 lakhs were completed. Besides 116 schemes estimated to cost Rs. 113.9 lakhs were in progress and a sum of Rs. 452.56 lakhs was spent on these schemes.

There was good progress in laying of roads, opening of co-operative societies and in elementary and social education. Nearly ten thousand people were fully or partially employed by 13 industrial units opened in the quarter for the revival of Rural Arts and Crafts.

Agriculture.

During the quarter under review, 228,729 maunds of fertilizers and 51,448 maunds of improved seeds were distributed as against 400,418 maunds of fertilizers and 19,952 maunds of improved seeds in the previous quarter. Fifteen thousand five-hundred and ninety-nine acres were brought under Japanese method of cultivation in 13 of the blocks for which this information is available. Particular mention may be made of the achievement in Arcot Block where 14,200 acres were brought under Japanese method of cultivation. Twelve-thousand eight-hundred and eighty compost pits were dug during the quarter as against 10,683 pits in the previous quarter. The use of improved seeds, fertilisers and improved methods of cultivation in agriculture were

popularized by appropriate types of demonstrations and 3,276 demonstration plots were laid during the quarter. Two thousand seven hundred and two improved implements were distributed as against 2,268 implements in the previous quarter. One thousand four hundred and thirty-two acres and 2,321 acres were brought under fruits and vegetable cultivation during the quarter as against 911 acres under fruits and 2,384 acres under vegetables in the previous quarter. Six lakhs thirty-two thousand five hundred and thirty samplings of economic importance were planted during the quarter under review. Thirteen thousand eight hundred and ninety-seven additional acres were irrigated during the quarter as against 11,097 acres in the previous quarter. Two thousand four hundred and sixty acres were reclaimed during the quarter as against 797 in the previous quarter.

Animal Husbandry.

During the quarter, 220 pedigree animals and 2,934 pedigree birds were supplied for upgrading existing stock of animals and birds. In Kadambathur, outstanding progress was registered in the field of poultry development. By virtue of 32 poultry farms functioning in this Block, with a complement of more than 50 R.I.R. poultry in each and more than 1,000 families in the Block rearing poultry of White Leg-horn or Rhode Island Red breeds with a complement of 6 to 8 birds, poultry keeping continues to be the most popular subsidiary occupation in this Block. This block is virtually functioning as a seed farm for poultry to the entire district.

Five artificial insemination centres and one Veterinary dispensary were

opened during the quarter. Two lakhs eleven thousand one hundred and sixty-five animals were inoculated and vaccinated and 40,240 animals and 22,999 birds were treated for various diseases. The corresponding figures for the previous quarter were 95,400 under inoculations and vaccinations and 40,585 animals, 16,815 birds under treatment. Nine thousand seven hundred and ninety-five scrub bulls were castrated during the quarter. In Dindigul, the key village extension scheme was introduced during the quarter. Thirty-four Kangayam bulls and 11 Murrah buffaloes were given to select custodians in the key village centres.

18.80 lakhs of fingerlings were supplied and 23 tanks were stocked with fish.

Health and Rural Sanitation.

Six hospitals, 2 dispensaries, 15 Maternity and child welfare centres and 2 first aid centres were started during the quarter. Fifty eight additional beds were provided in the hospitals, maternity and child welfare centres. Eight Mobile Health vans were working during the quarter in the Community Development areas. Two lakhs eighty-seven thousand two hundred and eleven persons were either inoculated or treated in the various medical institutions in the Community Development areas in the State during the quarter and 2,869 soakpits, 589 latrines and 24,727 yards of drains were constructed during the quarter as against 2,256 soakpits, 575 rural latrines, 13,883 yards of drains in the previous quarter.

Two hundred and thirty-three wells were constructed and 232 wells were renovated during the quarter as

against 216 and 242 respectively in the previous quarter.

Education and Social Education.

Forty one new schools were started during the quarter of which 9 were basic schools. No ordinary school was converted into basic during the quarter. Twenty four thousand three hundred and seventy six boys and 12,312 girls were attending the schools in the Community Development and National Extension Service areas of Madras State. One hundred and forty five Adult Education centres were started and 9,436 adults were trained during the quarter as against 132 Adult Education centres and 11,220 adults in the previous quarter. In Palladam 200 students of 2 local high schools organised *Shramadan* campaign and laid a kutchra road 6 furlongs long. School equipment valued at Rs. 2,676 was supplied to 75 educational institutions in Dindigul. During the quarter, 1,284 village leaders were trained. A village leaders' training camp was conducted for 3 days in Rajapalayam block and 150 leaders participated in that camp. One hundred and fifty seven Recreation centres, and 151 reading rooms libraries were opened during the quarter. Nine hundred and eighty eight community entertainments were organised during the quarter.

Communication.

Eighty-five miles and five furlongs of pucca roads and 70 miles and 7 furlongs of katcha roads were laid during the quarter as against 66 miles

and 7 furlongs of pucca roads and 69 miles and 2 furlongs of katcha roads laid in the previous quarter. Besides, 104 miles and 3 furlongs of existing roads were improved during the quarter as against 114 miles and 6 furlongs of roads improved in the previous quarter. One hundred and seventy-nine culverts were constructed during the quarter as against 145 in the previous quarter in the Community Development and National Extension Service areas of Madras State.

Rural Arts and Crafts.

Thirteen demonstrations *cum* training centres were started during the quarter. One hundred and ninety persons were given refresher training and 164 persons were given basic training during the quarter. Eight new Industrial units were started during the quarter and 5 old units were revived. A sum of Rs. 8,38,978 was granted as loans to the various industrial units in the Community Development and National Extension Service areas of the State. The value of output from the various industrial units put from the various industrial units amounted to Rs. 50,188 during the quarter. These units provided part-time employment to 7,637 persons and full-time employment to 2,013 persons during the quarter.

Co-operation.

Sixty-eight Co-operative societies were started during the quarter of which 30 were multipurpose co-operative societies. Eighty-three credit

societies were converted into multipurpose societies during the quarter. Twenty thousand three hundred and thirty-three new members were enrolled in old and new societies during the quarter. The organisation or the starting of the following societies deserve mention :—

(1) Organisation of a Rural Housing Society each in Tirukalikundram and Kadambathur and starting of Rural Housing Society each in Tiruvannamalai and Kalasapakkam.

(2) Organisation of one farming society each at Kadambathur and Kalasapakkam.

(3) Organisation of one labour contract society in Kadambathur.

(4) Starting of a Women's Cottage Industries Co-operative Society at Attoor (Madurai).

(5) Organisation of one hand pounding of Rice Workers' Industrial Co-operative Society at Kariapatti.

One thousand and fourteen pucca houses and 386 katcha houses were constructed during the quarter and 702 existing houses were improved.

People's contribution.

A sum of Rs. 5,53,155 by way of labour and a sum of Rs. 5,50,422 by way of cash and other contributions were realised as people's contribution during the quarter as against Rs. 4.57 lakhs realised in the previous quarter in the form of cash and other contributions.



A Conference of Block Development staff of the Chingleput District was held at Mahabalipuram on 22nd June 1957 when the Chief Minister Sri K. Kamaraj addressed them

People's Institutions.

One hundred and fourteen youth clubs, 42 farmers' unions, 52 Mahila Samities, 52 Panchayats, 107 non-statutory bodies like Vikash mandals, village councils, etc., were started in the Community development areas of the State during the quarter.

Electricity.

One hundred and thirty-eight villages were benefited by the extension supply to electricity. Fifty-two Schemes, estimated to cost Rs. 40.81 lakhs were completed and Rs. 13.33 lakhs were spent on these schemes. Besides, 116 schemes estimated to cost Rs. 113.9 lakhs were in progress, and a sum of Rs. 42.56 lakhs was spent on these schemes. Five thousand seven hundred and six domestic, 4,603 agricultural, 103 industrial and 1,392 street light connections were given during the quarter under report.

Difficulties encountered.

In Kolathur, difficulties are experienced in getting pesticides in time.

In Tiruvadanai, water scarcity appears to have hampered the quick execution of development works. Considerable difficulty was experienced by the Block Development Officer before sixteen ryots were persuaded to go in for filter point tube wells. Out of nine points that were tried only 3 proved successful. In Peddunaickenpalayam, much difficulty was experienced in getting 50 per cent contribution for the purchase of breeding bulls. In Tirukalikundram progress under Agriculture and Animal Husbandry was rather slow, because there was no separate budget provision for these items of development as the Block was undergoing the post-intensive stage.

Major goals for the next quarter.

The following are some of the items of work that will be taken up in the next quarter:—

(1) An Agricultural Bank and a Wardha Ghani unit will be set up in the coming quarter in Sriperumbudur.

(2) It is proposed to start a joint farming society, a Wardha Ghani unit and Soap-making unit in Kalasapakam in the next quarter.

(3) In Thottiam, three poultry units and 3 breeding bulls will be introduced during the next quarter. It is proposed to supply equipment to six elementary schools in this Block. Two multipurpose co-operative societies, one handicraft society, and 2 Harijan co-operative building societies will be started in the next quarter in this Block.

State Transport Collection

The State Transport Department (Madras City) collected Rs. 13,64,269 during May 1957, running on an average 308 to 311 buses per day, carrying 115,54,483 passengers, the total mileage travelled being 11,78,467. During the month the fleet strength stood at 450 buses. Five Leyland Comets were added to the fleet, while 5 old vehicles were condemned, and withdrawn from the fleet.

The Plan and the State Fisheries

Co-operatives Help for Better Marketing of Fish

By Sri S. ARULDOSS, I.A.S. (Retired)

The Co-operative principle can be applied to all branches of economic life. Just on the model of village Rural Credit Co-operative Societies for agriculturists, Co-operative Societies for fishermen, inland and marine have been organised under limited liability basis with the object of acquiring and holding water-courses such as rivers and tanks by purchase or lease for catching fish by members jointly or individually; to purchase or hire modern craft and tackles for increasing the catches by deep-sea fishing; to purchase or hire quick transport vans for better marketing of fish and for the joint sale of their products. There were 239 fishermen Co-operative Societies in the composite Madras State including the societies on the West Coast. There were 32,000 members and the working capital of the societies amounted to Rs. 7 lakhs. Now that the Fisheries on the West Coast have gone to the Kerala and Mysore States, there are only 147 Fishermen Co-operative Societies in the reorganised Madras State, including those in Kanyakumari District. At the beginning of 1956-57, a number of societies were dormant either for want of funds or for want of leadership in guiding and running the day-to-day affairs of the Fishermen Co-operative Societies. After the introduction of the various development schemes for the fishermen under the Second Five-Year Plan in 1956-57 and especially, after the grant of long-term Government loans, supply of mechanized (Pablo type) boats, nylon nets, motor vans, etc., on hire-purchase subsidy basis, the Fishermen have come to realise the importance of Co-operative Societies. Now applications are coming in large numbers for registering new societies. But organisation of

new Societies has to be proceeded with great care and caution until the existing societies are consolidated and placed on sound basis.

The fishermen are mostly poor and many of them are indebted to money-lender, merchants and middlemen within or outside their community. In their poverty and indebtedness, many fishermen are unable even to own a country craft or tackle, not to speak of any modern equipment for fishing. With a view to relieve them of their indebtedness and to provide them with crafts and tackles a scheme was drawn and approved by the Government. This scheme provides for the grant of long-term loans to the fishermen through Fishermen Co-operative Societies—

for clearing partly their prior debts to money-lenders,

for mainly purchasing fishing equipment such as crafts and tackles and other requisites for fishing,

for purchasing motor vehicles for transport of fish. The loans can also be used,

for purchasing or constructing buildings such as godowns, curing sheds and tanks for the storing or processing of fish or fish products, and

for purchasing, constructing and for erecting machinery, plant or other appliances for demonstration of improved methods of fishing, and for the preservation, processing or marketing of fish or fish-products.

Only fishermen, who are members of registered Fishermen Co-operative Societies are eligible for these loans in accordance with the special by-laws of the Societies.

District Fishermen Co-operative Federations.—To develop the activities of the Fishermen Societies, settle matters of common interest, such as procuring facilities, purchasing of yarn, logs, boats, etc., and in common acts as agents of the societies, central organisations called District Fishermen Co-operative Federations have been started at Madras, Tanjore, Ramanathapuram and Tuticorin. One of the main objects of the Federation is to provide facilities for modern methods of marketing, which will include quick handling, quick transport, preservation of fresh fish. The Societies (about five in each centre selected and brought under the loan scheme have contributed a sum of Rs. 1,000 to Rs. 2,000 each, as share capital to the Federations.) In addition to the above share capital, Government have also granted share capital loan of Rs. 2,000 to each of the Federations, repayable after 5 years in ten half-yearly instalments.

Grant of loans.

Under the scheme each society has been granted loans to 40 members not exceeding Rs. 500 per member or Rs. 2,000 per working unit and not exceeding Rs. 20,000 per society. The loans are granted to fishing units, comprising generally of 3 or 4 members on the personal security of two or more members of solvency or on the mortgage of unencumbered immovable property belonging to the borrower or borrowers. The fishing equipments such as crafts and tackles purchased out of the loans shall be mortgaged to the Society. The crafts and tackles for purchase of which the loans have been issued shall be purchased within one month from the date of issue of the

Distribution of Fertilizers in Development Block

Monopoly to Co-operative Societies

The Government have decided to entrust solely to the Co-operative Societies, the distribution of chemical fertilizers in the Community Development and National Extension Service areas, allowing the existing private dealers to open depots outside these areas. This is the first step towards giving the Co-operatives a total monopoly, in a short time, in the fertilizer distribution under the State Trading Scheme.

Simultaneously, the share of Co-operative agency in the retail distribution of fertilizers in the other areas will be raised from the present one-third to one-half within the next few months. Future appointments of new distributors will also be confined only to Co-operative Societies, if they are available.

The switch over from private trade to co-operative trade in the monopoly areas will be carried out within a period of three months, so that there will be no interruption or slowing down of the availability of fertiliser supplied to the consumers. In every case, the

trade from the private dealers will be taken over only after allowing one month's time, as notice, under the agreement. The role of private distributors in the new set up will be chiefly to increase the consumption of fertilizers.

During 1957-58, the target of distribution of ammonium sulphate is 140,000 tons against a quantity of 120,000 tons distributed in 1956-57. Although the percentage share of the private dealer has been reduced, the quantitative deficiency is likely to be made up to some extent by the increase in the target. The Collectors have been requested to see that as many new depots as possible are opened by utilising the transfer of the displaced private dealers to other areas. Similarly in the Community Development and National Extension Service areas, where intensified cultivation practices are adopted, the co-operative agencies have been directed to open the maximum number of depots possible in each area, the ultimate aim being to have a depot for every five villages. The

revised arrangements will be implemented before 30th September 1957.

Price fixation.

As a result of an increase in the price of fertilisers decided upon by the Government of India, the Madras Government have put up the consumer price of the following chemical fertilisers to amounts shown against each: (per ton).

Urea: Rs. 746.45, Ammonium Sulphate Nitrate: Rs. 447.75 and Calcium Ammonium Nitrate: Rs. 355.05. The refixed price is effective from 1st April but the increase in rates will be passed on to the consuming ryots only on future sales. The existing prices for urea and Ammonium Sulphate Nitrate are Rs. 634.20 and Rs. 407.28 per ton respectively.

Calcium Ammonium Nitrate is a new nitrogenous fertilizer, the use of which Government have decided to popularise among ryots and to this and the distribution of it has been entrusted to the existing State Trading channels



The study Team of Community Development Projects headed by Sri Balvant Rai Mehta, held discussion with the Madras Cabinet, on 24th June 1957.

final instalment of within 3 months from the date of issue of the first instalment, whichever is earlier. Loans amounting to Rs. 2.70 lakhs have been drawn and disbursed to 26 Fishermen Co-operative Societies and 832 fishermen have been benefited by the loans in 1956-57, the first year of the 2nd Five-Year Plan. Special staff have been sanctioned by the Government for intensive supervision of the Societies that have come under the scheme.

Out of the loan of Rs. 2.70 lakhs a portion has been utilised by the fishermen for discharge of prior debts and a major portion has been utilised for purchasing crafts and tackles. The District Federations assist the societies in purchasing yarn, sail cloth, etc., in bulk at ex-mill rate and distributing them to the member societies charging a very low commission just enough to meet the handling charges.

Development of Inland Centre at Mettur Dams

Under the Second Five-Year Plan, a Fishermen Co-operative Marketing Society was organised and started on 7th October 1956. There are about 200 members with a paid-up share capital of Rs. 1,000. For managing the affairs of the society and to attend to the marketing scheme, the services of one Senior Inspector and one Junior Inspector of Co-operative Societies are placed at the disposal of the society free of cost. Loans amounting to Rs. 13,500 have been issued to 118 members for discharging prior debts and for purchasing crafts and tackles. 226 members have taken licences for fishing in Mettur Reservoir during 1957-58. All the member licencees market their catches through the Society from 10th April 1957. The departmental boat and the motor van have been given to

the Society on hire, which were hitherto engaged by the merchants. Since this is the beginning of the year and since there was some delay in the issue of licences, the catches marketed through the Society amount to 1,500 to 2,000 lb. per day. But it is hoped that the entire patches would be marketed only through the society in the course of a few weeks and the production would go up to 3,000 lb. a day or even more. Nearly 90 per cent of the fishermen who fish in the reservoir have joined the Society and the others will also join shortly. Applications for long-term loans for taking out licences, for purchase of crafts and tackle are being received in large numbers, but pending allotment of funds for 1957-58 the society has been advised to approach the Salem District Co-operative Central Bank for finance. There were a number of difficulties and obstacles in starting the

society and many more before introducing marketing through the Society. But by effective propaganda and peaceful persuasion the fishermen were made to join the Society in large numbers and sell their catches through the Society.

Mechanised boats and nylon nets.

Twenty mechanised boats (called Pablo boats) and nylon nets have been given to ten fishermen Co-operative Societies in Madras City and the districts.

The requirements of other societies are hoped to be satisfied when the next consignment of the Pablo boats arrives.

Terelune yarn has been issued to all the Societies at subsidised rates for making nets under hire purchase system the cost being repayable to Government in monthly instalments within a period of 2 years. The boats also have been given on 75 per cent loan and 25 per cent free subsidy under hire purchase system, the cost being repayable in monthly instalments of Rs. 125 in a period of six years. The fishermen are slowly beginning to realise the advantage of the use of power boats and synthetic nets and there is a clamour for the supply of this modern equipment all over the State. The handicap to the use of power boat in Madras City and its suburbs is lack of facilities for mooring, and the only way to overcome this difficulty is to construct a fishing harbour. But in place like Cuddalore, Nagapattinam and Tuticorin, there are natural facilities for mooring these small power-boats and a greater number of fishermen can be persuaded to change over to modern equipments from the old country crafts and tackles, in these places.

The work done during the 1st year of the Second Five-Year Plan and the results achieved are indeed encouraging and it is hoped that much more will be achieved in the course of the 2nd year. There is no doubt that the income of the fishermen in the State will be doubled, before the completion of the plan period not at the expense of the consumer, but by greater out-put which is expected to be three or even four times than the present production.

Housing for fishermen.

Under the Harijan Welfare Scheme a free subsidy of Rs. 51,000 was sanctioned for constructing 74 houses in

Mullikuppam through Madras Fishermen Co-operative Society and 28 in Kasikoilkuppam in Chingleput district, where 28 families lost their houses in a fire accident at a cost of Rs. 500 each. Necessary funds have been placed at the disposal of the Additional Director for constructing the houses during 1957-58. The lay-out for the house sites is under preparation and the assignment of the land in favour of the fishermen is under correspondence with the Collectors of Chingleput and Madras. In the meanwhile, the Public Works Department which was consulted regarding the estimated cost of Construction has stated that each building will cost Rs. 850 in Madras and Rs. 800 in Kasikoilkuppam, including labour charges. In view of the poor circumstances of the fishermen they cannot be expected to render manual labour without any subsistence. Further the fishermen are not trained in masonry or carpentry work. In the circumstances, the number of houses to be constructed will have to be reduced proportionately based on the estimated cost of Rs. 850 and Rs. 800 in Madras and Kasikoilkuppam respectively.

There are many requests from the fishermen for constructing similar houses free of cost, in their kuppams. But the provision of Rs. 51,000 per year during the plan period for the whole State is thoroughly inadequate to meet this heavy demand. To solve the problems to a reasonable extent, it is proposed to organise rural housing societies for fishermen and proposals have been called for from all the Regional Directors.

Conclusion.

Various schemes for the betterment of the fishermen have been undertaken with a view to improve the economic condition of the fishermen and a State Fisheries Advisory Council has been recently constituted for advising the Government on matters of Policy and on the effective implementation of the plan provided in the Second Five-Year Plan. The Co-operative Organisation among the fishermen will no doubt play a vital role to defend the fishermen from economic distress and social evils. As the improvement of the economic and social interests of this down trodden but a very useful community to the consuming public is of vital importance to the country as a whole, the Government of India have placed funds at the

disposal of the Government of Madras for granting long-term loans to fishermen and have also agreed to meet 25 per cent of the cost of supervisory staff.

Fisheries Advisory Board.

The Government have issued orders increasing the non-official representatives in the State Fisheries Advisory Board. The number of non-official members from the district on the East Coast (including Kanyakumari district) connected with Marine Fishing is increased from two to four.

Similarly the number of non-official members to represent the interest of the Fisheries on the inland side is increased from one to two. The Chairman of the Board will be the Minister for Local Administration (who is in Charge of Fisheries). The non-official members connected with Marine Fishing are.

Sri C. Machado, President, Tirunelveli district Fishermen Co-operative Federation, Limited, Tuticorin (Tirunelveli district), Sri P. Thangaraj, Corporation Councillor, Rayapuram, Madras, Sri A. M. Simon, President, Colachel Fishermen Co-operative Society, Colachel (Kanyakumari district) and Sri Sundaramoorthy, President, Killai Fishermen Co-operative Society, Killai (South Arcot district).

The non-official members to represent the interest of fisheries on the inland side area:

Sri V. M. Natesa Nattar, President, The Madras State Parvatha Rajakula Sangam, Madras and Sri A. Mariappa Maniyakarar, President, Parvatharajakula Fishermen Co-operative Society, Limited, Karuntattankudi, Tanjore.

Sri M. D. T. Kumaraswamy Mudaliar, President, State Co-operative Bank, Madras, has been included in the Board to represent the Madras State Co-operative Bank.

Packing Charges for Cements

The packing charges for cement to be charged by cement companies in Madras State during the period 1st July to 30th September 1957 has been notified by Government. In the case of cement packed in new gunny bags the charge will be at the flat rate of Rs. 13.72 per ton of cement in full wagon loads f.o.r. destination.

Role of Statistics in Animal Husbandry

By Sri J. C. VICTOR, Statistician, Animal Husbandry Department, Madras

Statistics and the Statistical information are very much needed for everybody and in fact our entry into this world and the exit from it are recorded statistically. Statistics is a science and an art. As a science the Statistical methods used are basically systematic and their application has a very wide use and as an art, the successful application of these methods require a considerable degree of the skill and knowledge of the statistician. Statistics is the concern of two groups of scientists. The first group of mathematical statisticians, is interested in developing the theory and extending the applicability of the subject, while the second group which consists of experimental statisticians is concerned largely with the using of the methods as tools in their own field of research. Statistical methods are very important to experimentalists in most branches of biology and are used by workers in the more exact sciences of physics, chemistry and engineering. In fact the statistical ideas are the root of many current theories in biology and a statistical approach is one of the most characteristic features of modern science. The scope of subjects included under statistics is wide and the application of statistics to a particular branch of science needs specialisation and experience before the statistical methods are applied.

The statistical methods are being widely used in Agriculture mostly due to the pioneering efforts of Dr. R. A. Fisher and his co-workers. Animal Husbandry being an allied subject of Agriculture, though there is high heterogeneity and difficulty in conducting animal experiments under controlled conditions, the application of statistical methods to this branch of service has shown a good amount of progress, mostly due to the initiation and the interest evinced by Lush, Cockran and Snedecor of the Iowa State College, U.S.A. In India, the application of statistics to all problems connected with Animal Husbandry had been initiated by the I.C.A.R. and to-day statistics in Animal

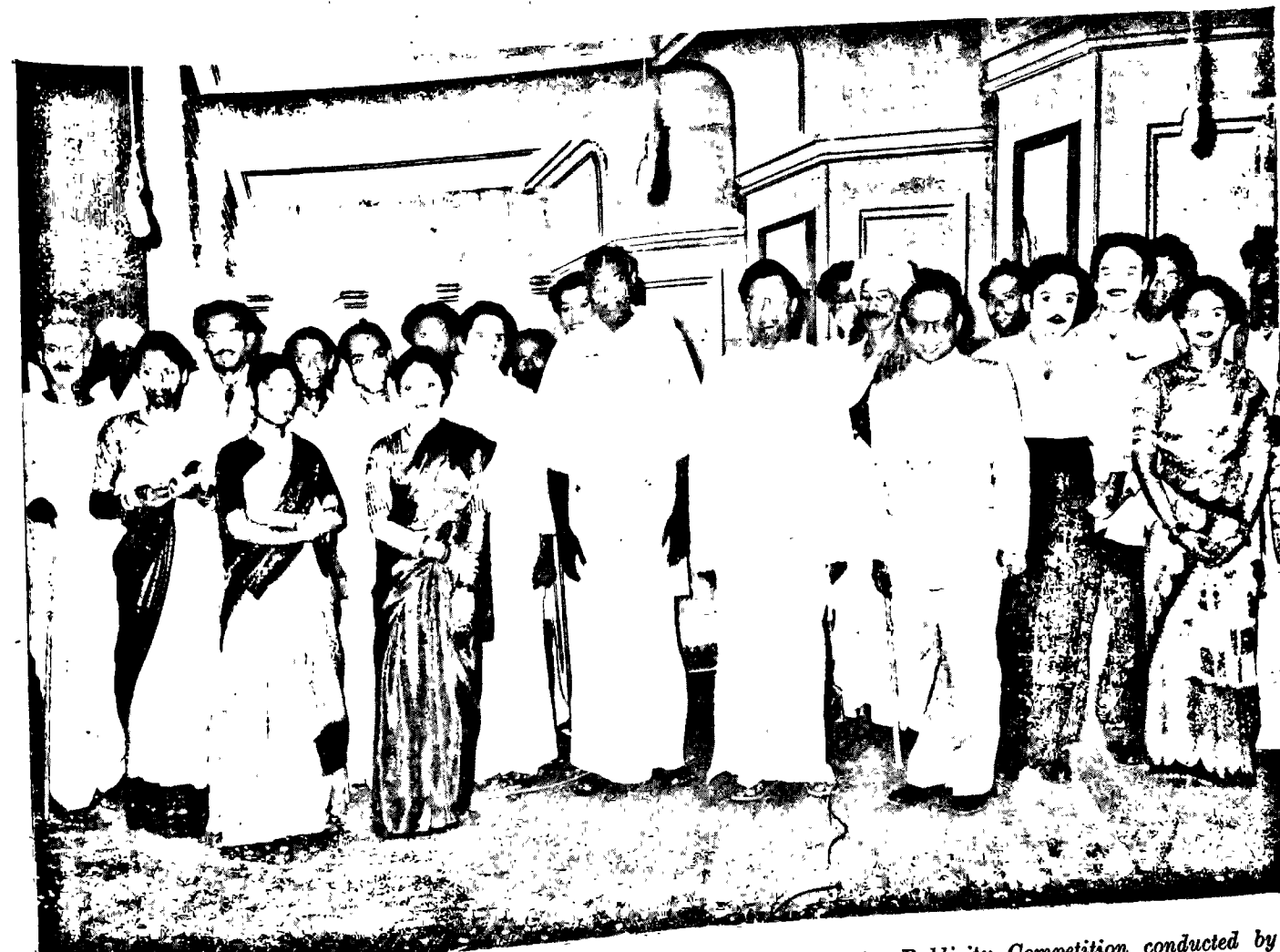
Husbandry research is widely used in all the States.

In Animal genetics, it is necessary for all research work that the principles of statistics should be applied. The Mendelian law of segregation is based on the principles of inheritance, which explains the proportion with which the geneotypic and phenotypic characters are segregated, when types of crosses are made. This follows the principle of probability with the expected proportions. This becomes a statistical problem as to the hypothesis set up whether the observed ratio is in conformity with the expected ratio. The measurement of the intensity of linkage of a particular character and the specification of the progeny population for linked factors have to be estimated by using appropriate statistical methods to arrive at a valid result. In population genetics, the application of statistics is very common. In this study the population changes have to be considered. This may be the genetic improvement obtained in any population or the estimation of genetic gain either expressed in milk yield in the case of a dairy herd or in egg production in the case of poultry.

Animal Breeding and knowledge of statistics.

The Animal Breeding requires a good knowledge of statistics. The statistics in other words is the study of variation. The variation as observed from animals is of complex nature and consists more of heterogeneous characters. Hence the study of variation by the application of Statistical methods gives us good scope for improving the herd to the desired or expected level. The variation is of two kinds as observed in the animals, one is genetic and the other environmental. Statistically the variation can be separated into two component factors, which will give an idea to the animal breeder how much improvement he can make

up in his herd either genetically or environmentally. Again the genetic and phenotype resemblances can also be studied statistically so that the future plan can be made to modify his selection of material for breeding. Statistical methods are there to study the effect of in-breeding in a herd of cattle which has been in long existence wherein breeding has been practised either with advantage or with disadvantage. At the same time, the coefficient of relationship can be calculated and this will facilitate drawing valid conclusion on the performance of the progeny based on its ancestors. Heritability is another important factor, where the tools of statistics are applied in order to assess the hereditary characters in a milch herd. The heritability of each characteristic is important because it is the average fraction phenotypic improvement we get in the offspring for each unit of phenotypic merit in the elected parent. The heritability is usually defined in the statistical terms as the fraction of the total variance which is due to hereditary differences between individuals. Thus the concept and the estimation of heritability in any herd can only be obtained by the application of statistical methods. In addition a number of farm consisting a large number of animals, where the selective breeding is done, the study of population changes by this selection, the construction of a selection index and the estimation of genetic gain, have to be studied annually and this needs the statistical methods to be applied, to suit the population, in a particular place. The study of correlation, which is otherwise known as the association of characters is purely statistical and different methods are applied to evaluate the association of environmental characters. Apart from the application of the correlation study to environmental characters genetic correlation between two characters on the same animals can also be measured by observing a large number of pairs of closely related animals



Sri K. Kamaraj, Chief Minister, distributed prizes to the winners in the Plan Publicity Competition conducted by the Director of Information and Publicity, at a function held at Museum Theatre, in the last week of June. Sri C. Subramaniam, Finance Minister, presided. 'Maru Vazhvu' one of the prize-winning dramas, was staged by Sri S. D. Sundaram's Elango Nataga Manram on the occasion.

Progeny testing, which has been universally accepted the best method to find out the worth of a sire used in any breeding programme, is based on paired comparisons of performance of the dam and daughter and tested by the student "t" test. This is the ideal method for the selection of a sire aimed at improving the milk potentialities of a herd. If a proven sire is spotted out by testing, this can be very widely used, with the result, more number of improved progenies will be available with some assurance. This is a statistical test of significance of the difference in the yields between the daughters of a sire and their respective dams which will show whether the sire can produce daughters which on an average are superior or inferior in milk production than their dams.

The sire index of a particular sire used in a breeding programme is of very great value to the animal breeder. This is an estimate of the breeding value of a sire in terms of yield of milk and can tell a breeder who a sire can be used with advantage on dams of a particular level. This sire index also enables the comparison to be made of the worth of two sires. This also fulfils the conditions necessary for the validity of the progeny testing and makes an additional assumption that the sire and the dam contribute equally to the milk potentiality of the daughter. The evaluation of sire index of the sires used for breeding in a dairy herd, helps the animal breeder to draw a suitable programme to improve his herd. Since the worth of the sires are known, the available dams and

heifers can be divided into homogenous groups by applying the principle of randomisation and the sires can be allotted to these groups according to their worth. This will facilitate a planned breeding work, based on the availability of animals in the herd. The improvement can be assessed annually and different sires allotted in the consecutive years. The above procedure is purely a statistical approach to animal breeding with a certain amount of confidence in the animal breeding work.

Nutritional Availability.

The application of statistics is not only confined to the animal breeding work, but also to the other branches, viz., Animal Nutrition, Animal Management, Disease Control and Estimation of Livestock Numbers and Live

Progeny Testing to Improve Milk Potentialities

stock products. As regards Animal Nutrition though we have acquired a considerable amount of useful knowledge about the nutritional requirements of our animals for maintenance and production, yet we will have to study all aspects of animal nutrition under conditions prevailing in different parts of the country. This necessitates a careful planning of the nutritional availability with a definite object before us. Feeding trials have to be conducted so as to find out the superiority or otherwise of one feed over the other either by the increase of milk yield or by the increase of growth rate of animals. Here again the science of statistics plays an important part. In feeding trials, animals are divided into different homogenous groups and allotted to different feeds to be tested and the effect of feeds

observed. If two feeds are to be tested, a paired feedings with animals divided into different pairs are made so that within each pair, similarity is maintained as far as possible in respect of the age, weight, breed, milk yield, etc. If there are more than two treatments to be tested, there are other designs of experiments, such as Randomised block design, Latin square, etc. The need for a particular design depends upon the availability of the experimental material and the number of treatments to be tested. The experimental data have to be statistically analysed and tested by an appropriate test, and results interpreted. Thus the statistician has necessarily to plan the experiment and evaluate the result. It may be mentioned here that if the experiment is not designed or planned

properly, valid results cannot be expected. There are various other techniques of statistical methods such as switch-over, switch-back trials and analysis of co-variance which are very widely used in the Animal Nutrition work.

The animal management work in any dairy farm plays a vital role. Unless the management is properly done, any amount of efforts to increase the genetic potency will be of no use. This has to be worked out separately for each breed at a given place, since the environmental practices differ from place to place. Under management can be mentioned all the policies adopted on the farm which provide an animal the optimum set of conditions to yield the maximum capacity by way of work, or milk. Here the essential factors are the effect of calving seasons, times of milking, milk yield time of weaning, different wages of milking feeding practices, etc., and these factors have to be successfully tackled only by planned investigation and interpreting the data by statistical analysis. Regression is another statistical term, which is commonly used in experiments of Biology and with advantage can be used in Animal Husbandry also, for the study of the growth rate of animals and fitting of growth curves. The problems which can be used in disease control are (i) to find out an efficacious medicine, serum or vaccine used for curative or preventive measure against the disease, (ii) to determine the proper dosage of the agent to be employed and (iii) the keeping quality under different environmental conditions and the period of immunity of the serum or vaccine. The above investigations are scientific and systematic in manner and requires the help of statistical methods.

Sample Surveys.
Sample surveys from the essential aspect of statistics. A sampling method is a method of selecting a fraction of the population in way that the selected sample represents the population. A sampling method, if it is to provide a sample representative of the population, must be such that all characteristics of the population, including the variability among units of the

(Continued on page 35)

Contribution of Glass to Human Progress

It was two hundred years ago Dr. Samuel Johnson said "who when he first saw the sand and the ashes by casual intenseness of heat, melted into a matalline form, rugged with excrescences and clouded with impurities, would have imagined that in this shapeless mass lay concealed so many convenience of life as would in time constitute a great part of happiness of the world". The contribution of glass to human progress, happiness and civilization, can be partly assessed by the fact, that without glass science would be blind. Master of the senses, sight is also the keystone of science and the arts. "Seeing is believing" to the Scientist as well as layman, through spectacles, glass has corrected and helped to preserve man's vision and through the telescope, microscope, spectrometer and other optical instruments glass has widened and deepened that vision to embrace the very large and the very small, the obscure as well as the obvious. To this fundamental contribution should be added the countless other uses of glass for *Scientific Apparatus* and *instruments*—thermometers, test tubes, beakers, retorts, etc. In the

hands of the Scientist glass becomes one of the few basic materials which not only minister to man's comfort in a purely utilitarian way but which influences our whole mental world of thoughts and aspirations. A splendid picture of the research man's workshop and what may come out of it has been given by Whitney and Hawkins under the caption 'Story of One Laboratory Table'.

"On that table there is nothing spectacular, nothing making the slightest noise, nothing brighter than a 50-watt lamp, only a rather complicated system of glass tubing and some measuring instruments....."

This glass apparatus and other glass laboratory-ware are Langmuir's tools, as they are the tools of every scientist in pure or applied research, in industry or in educational institutions. For many years one of the very trade marks of laboratory has been its glassware, the familiar beaker, flask, test tube amongst other things.

The maker of a simple test tube or a complicated apparatus is called a

'Table Blower' and the Government Scientific Glass Blowing Centre, Kilpauk, trains every year 10 smart boys who can make almost all the apparatus a scientist can conceive or a research worker can think of.

This Institution located in a spacious building at Appah Gardens, Kilpauk, since April 1956 was first started in the Central Polytechnic compound in 1950. Equipment worth about Rs. 60,000 has been added recently and additional staff have been sanctioned to be in charge of the new sections.

Every year 10 boys eligible for University courses and who have special aptitude for glass blowing are taken and trained in the 3 branches of scientific glass blowing, namely—Blowing, Graduation and Grinding. During the training period, the trainees are also taken on an educational tour to the factories of Bombay, Ambala and Calcutta.

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Dr. P. R. Deshmukh, Union Minister for Co-operation, paid a visit to the Madras State Co-operative Bank in the last week of June. Sri M. Bhaktavatsalam, Minister for Home, Sri A. Palaniappa Mudaliar, Registrar of Co-operative Societies, were also present.



Sri M. A. Manickavelu, Minister for Revenue, delivered the valedictory address of the Regional Seminar on Secondary Education at the Teachers' College, Saidapet, on 21st June 1957. Sri N. D. Sundaravadivelu, Director of Public Instruction is also in the picture.

Thus Spake the Mahatma

By Sri V. VASUDEVAN, Assistant Secretary to Government of Madras, Food and Agriculture Department

Mahatma Gandhi wrote for the best part of his long life of nearly four score years words of advice on diverse subjects for the benefit of his countrymen. He wrote in a language which for its clarity of thought, lucidity and simplicity of diction cogency of argument and directness of approach is in a class by itself. Representative specimens of these inimitable writings of Gandhiji are contained in the booklet entitled "From Yeravda Mandir" published by the Navajivan Publishing House, Ahmedabad, and offered to the public at a nominal price of 37 naye Paise.

The booklet contains 15 of the letters written by Gandhiji to the inmates of the Satyagraha Ashram during his incarceration in 1930 in the Yeravda Central Prison on subjects like Truth, Ahimsa, Chastity, Equality of Religions, Control of the Palate, Fearlessness, etc. It also contains an article on Swadeshi written by him shortly after his release from prison in 1931. These writings contain messages to his countrymen which are as valid today as they were when they were written about 26 years ago. Indeed dealing as most of them do with the eternal verities they are ageless.

The passionate attachment to truth of Gandhiji who held that there was no religion higher than truth is well brought out in the letter on Truth in which he says that "in fact it is more correct to say that Truth is God than to say that God is Truth". In the same letter there is an example of his great catholicity. He says, "what may appear as truth to one person will often appear as untruth to another person. But that need not worry the seeker. Where there is honest effort it will be realised that what appear to be different

Review of "From Yeravda Mandir" by M. K. Gandhi, Navajivan Publishing House, Ahmedabad.

truths are like the countless and apparently different leaves of the same tree. Does not God Himself appear to different individuals in different aspects? Yet we know that He is one. But Truth is the right designation of God. Hence there is nothing wrong in every man following Truth according to his lights. Indeed it is his duty to do so."

Gandhiji's conception of truth is remarkably close to that of Saint Tiruvalluvar. Gandhiji says "Truth should be the very breath of our life. When once that stage in the pilgrims progress is reached, all other rules of correct living will come without effort and obedience to them will be instinctive. But without Truth it will be impossible to observe any principles or rules in life." These words are a faithful echo of the following verses from the Tirukkural:—

பொய்யாமை அன்ன புகழில்லை;
எய்யாமை எல்லா அறமும் தரும்.
பொய்யாமை பொய்யாமை ஆற்றின்,
செய்யாமை செய்யாமை நன்று.

The specifications of Brahmacharya or Chastity set out by Gandhiji in his letter on the subject are very stern and severe. He says that one who would obey the law of ahimsa cannot marry. Then posing the question "what about people who are already married?" he gives the following answer:—"There is a way out for them. They can behave as if they were not married.... If the married couple can think of each other as brother and sister they are freed for universal service". Few mortals can reach these Himalayan heights. But then it should be remembered that Gandhiji was addressing his words to his Asramites from whom he expected and demanded a very high code of conduct. Further as Gandhiji observes in his letter on "Control of the Palate",

"the taking of a vow does not mean that we are able to observe it completely from the very beginning; it does mean constant and honest effort in thought, word and deed with a view to its fulfilment. To understand an ideal and then to make a herculean effort to reach it no matter how difficult it is—this is Purushartha, manly endeavour.

After stating that mastery of the palate does not figure among the observances of time-honoured recognition, Gandhiji naively asks, "could it be because even great sages found it difficult to achieve?" Non-possession, according to Gandhiji, is a principle applicable to thoughts as well as to things. He says that a man who feeds his brain with useless knowledge violates this inestimable principle.

Removal of untouchability, says Gandhiji in his letter on the subject, means love for and service of the whole world and thus merges into Ahimsa. In this letter occurs the following arresting sentence:—"We have hardly enough time even to look after ourselves, thanks to the never ending ablutions and exclusive preparation of food and exclusive preparation of untouchability. While pretending to pray to God we offer worship not to God but to ourselves.

It is well known that Gandhiji believed in the equality of all religions. He has given forceful expression to this in the following extract from one of the two letters on this subject:—"The one Religion is beyond all speech. Imperfect men put it into such language as they can command and their words are interpreted by other men equally imperfect. Whose interpretation is to be held to be the right one? Everybody is right from his own stand-point but it is not impossible that everybody is wrong. Hence the necessity for tolerance which does not mean indifference

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.....to be real

Inheritors of the World

In a sense, naturalists study the flora and fauna. In a wider sense they study cause and effect. In any case, flora and fauna are only the garment of the great and complicated world which is currently described as nature.

Poets have ennobled nature partly because they have seen and sensed it more than others, and partly because of their disappointment with the works of men. Lowell could write "To our age's drowsy blood, Still shouts the inspiring sea" echoing Byron who had written "I love not man the less, but nature more". Scientists have regarded nature as a challenge for discovery of cause and effect. Both poets and scientists have this in common that they find in nature an inexhaustible source of new and better things.

This has a lesson for every department of life. If nature in its infinite variety is still bound to cause and effect, human life cannot be different. The problem is to lead back life which time has burdened with accretions, to a more rational, purposive footing. Rousseau conceived this, doubtless for purposes of effect, as a return to nature, to the noble savage. Tolstoy emphasized the elemental qualities which override modes and manners. Gandhiji initiated Sarvodaya as a revolt against the prevailing social confusion. These trends indicate that a deep search in what we think and do is necessary, if life is to regain not only the beauty but the power of nature.

Our life has lost the purposiveness of animal and plant life. It is as if our very power of thinking has made us muddle the creator's plan. People live on so many half truths that even those who are most religious are afraid both of life and death. Few use their full

powers and nearly all fail to render satisfaction to themselves and others. Human life accord with nature, when both mind and body are set on full use of resources and opportunities. Half tones imposed by the past, have to disappear at least as for development of human potentials is concerned.

The country needs at the moment that its human and natural capacities are fully utilized. The grandiose plans we are making on all sides, reflect how much there is to be done. But while natural deficiencies are being overhauled, few are thinking of human deficiencies. We have not only to create a new country but a new man. In the first place his psychology has to be built so that he thinks better of himself and has more confidence in his abilities. There has been for historical and other reasons a tendency to humility amounting almost to self abasement. We have to teach the common man that he can hold his head as high as anyone else, provided he renders the best account of himself. This is not pride, it is confidence, which must fill everyone if the great waste of talent and labour is to be overcome. In the second place, certain minimum standards must be assured to the common man, like employment and housing, to remove his sense of insecurity and debasement. In the third place the common man must have his rewards in the shape of enjoyable leisure and fulfilment of legitimate expectations.

At present in some respects human beings are the least favoured of all creations. They are disorderly, miserable, frustrated as no animals can be. They have to return to the laws of nature, to be real inheritors of the world.

—Sri J. M. Lobo Prabhu.

Maintenance of Pasture Land

Prizes awarded in Dharapuram Taluk

In pursuance of the Pilot Scheme sanctioned by the Government to encourage the ryots to raise and maintain good pastures, a number of prizes have been awarded to persons maintaining best pasture lands in Dharapuram taluk of Coimbatore district.

Ten prizes of Rs. 75 each were awarded under the first group of 5 to 10 acres of pasture land, three prizes of Rs. 250 each under the second group of 11 to 50 acres and two prizes of Rs. 500 each under the third group of 51 to 100 acres.

The names of persons and their villages under each group are:—

- Group No. 1 (5 to 10 acres; Prize Rs. 75)—
1. Sri R. Chidambaraswamy Gounder, Kambiliampatti.
 2. Sri V. G. Periyaswamy Gounder, Varadappanpalayam.
 3. Sri V. G. Chinnaswamy Gounder, Varadappanpalayam.
 4. Sri P. I. K. Palaniswamy, Pottiapalayam.
 5. Sri Sellamuthu Gounder, Veeranampalayam.
 6. Sri R. Sivamalai Gounder, Padiyur.
 7. Sri M. Govindaswami Gounder, Valasu.
 8. Sri S. Palaniswamy Gounder, Agilandapuram.
 9. Sri K. Arumugam, Pachyur.
 10. Sri N. Subbiah Gounder, Alampalayam, Nanjampalam P.O.

Group No. 2 (11 to 50 acres—Rs. 250)—

1. Sri A. M. Ramaswamy Gounder, Alampalayam, Muthur P.O.
2. Sri P. N. Vembannan, Pudur, Palayakottai.
3. Sri N. Ramaswamy Gounder, Chitambalam.

Group No. 3 (51 to 100 acres—Rs. 500)—

1. Sri C. Muthappa Gounder, Pudur, Palayakottai.
2. Sri S. Ramana Gounder, Ezamanur, Pudur.

Housing Colonies for Weavers at Tiruchengode and Srivilliputhur

Centre to Render Financial Assistance

Schemes for the construction of four housing colonies for handloom weavers—two in Madras, one in Mysore and one in Uttar Pradesh—have been approved by the Government of India.

Government have agreed to render financial assistance for this purpose and have sanctioned about Rs. 3.5 lakhs as a first instalment. The assistance is being given as part of the programme to improve the living conditions of workers.

Of the two schemes for Madras, one provides for the construction of a colony of 100 houses at Tiruchengode in Salem district and the other for a

100-house colony at Srivilliputhur in Ramanathapuram district. Another scheme for the renovation of the houses of the members of the Melapalayam Weavers' Co-operative Society in Tirunelveli district has also been accepted.

The colonies will be set up and managed by co-operative societies. The latter will run common plants for processes like dyeing, finishing and calendering and also arrange for the bulk purchase and supply of yarn to the weavers on the one hand and for marketing of the finished products on the other.

A ceiling of Rs. 3,000 has been fixed on the cost of construction of a house. The Government of India will meet the entire cost of construction. While two-thirds of the financial assistance will be regarded as loan, the remaining one-third will be an outright subsidy. Besides, the Central Government will also provide the cost of other amenities, like water-supply, drainage, etc.

The total sales of khadi produced by the Madras Government through various agencies during the month of May 1957 amounted to Rs. 4,77,621.



The first meeting of the Chingleput District Prohibition Advisory Committee followed by a public meeting was held at Sunkuvar Chathram, to make an appeal to the people to help in the effective implementation of the Prohibition. Sri C. N. Anna-Sri M. Bhaktavatsalam, Minister for Home, in charge of Prohibition, inaugurated the meeting. Sri C. N. Anna-durai, Leader of the D.M.K. Party in the Assembly, also spoke extending support to the Prohibition policy of the Government.

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The I.N.A. could not carry on the war single-handed, and therefore ceased fighting. Netaji again wished to stay with his army and face the enemy in Singapore. Again he was persuaded at the very last moment to quit Singapore and fly away to an unknown destination—far from the reach of Anglo-Americans.

His colleagues were determined that he should not fall a prisoner into Anglo-American hands. He did not share their view. He insisted that his place was with his men. He was prepared for capture, arrest, trial, sentence of death and execution. His colleagues failed to dissuade him till the early hours of the 16th of August after days and nights of animated discussion. Only with the break of dawn on August 16, Netaji yielded, and agreed to move out of Singapore. He flew to Bangkok and arrived there that afternoon. After all night conferences with his civilian and military officers there, he pushed on to Saigon the next morning (August 17th). The same afternoon, he boarded another plane on his fateful and last known flight to an unknown destination. The Japanese authorities announced a week later that Netaji died in a plane crash

in Taihoku (Taipeh) on Formosa Island on August 18, 1945.

Thus the story of Subhas Chandra Bose in East Asia ended after 25 months of hectic and heroic activities in the cause of Indian Independence. But the I.N.A. he created and left behind in East Asia was made prisoners of war, taken all the way to the Red Fort in Delhi, and symbolically courtmartialled for waging war against the British King.

Bhulabhai Desai, defending the I.N.A., proclaimed to the world the right of a subject nation to wage war against its alien King.

The whole of India was stirred to its depths when the Saga of the I.N.A. was unfolded day after day before the courtmartial at the Red Fort. Sheer weight of public opinion in India forced the British to release those who had already been tried and sentenced, and to drop all further trials.

Exactly what role the I.N.A. played in inducing the British to quit India in August 1947 may safely be left to the verdict of future historians.

Suffice it to say for the purpose of this article that the Indian National Army was one of the historical sequences of the Indian uprising of 1857, whose centenary, we are celebrating now.

population are reflected in the sample as closely as the size of the sample will permit so that reliable estimates of the population characters can be formed from the sample. With the above basic principles, this theory of sampling can be used for the estimation of livestock numbers, to find out the cost of production of livestock products such as milk and also to estimate the total production of milk. Such schemes are being put into operation in this State under the Second Five-Year Plan. This procedure enhances the accuracy of the collection of numbers, by the application of random sampling. Since no attempt has so far been made to collect statistics of Livestock products on a country wide scale in a scientific manner, this method of adopting random sampling procedure appears to give a reliable estimate. These reliable estimates are very necessary for efficient planning and development of livestock. When the schemes under Second Five Year-Plan are put into operation, it is only these estimates that gives us a standard yardstick, with which we can plan our future schemes with a certain amount of precision.

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Madras Slum Clearance Projects

Grants Sanctioned by Centre

The Government of India have approved nine slum clearance projects of the Madras Government and have sanctioned a sum of Rs. 16,25,985 for their execution.

The schemes pertain to the slum areas of Meenambal Sivarajnagar, Karimeducheri, Nochikuppam, Thiruvalluvarpuram, Vazhaippucheri, Thiruvengadapuram, Mallikuppam, Lock Nagar and a housing plan for pavement dwellers.

The total cost of these projects, as approved by the Union Government, is estimated at Rs. 21,67,980. Of this

amount, the Union Government will give 50 per cent, i.e., Rs. 10,83,990 as loan and the balance will be shared equally by the Union Government and the State Government as subsidy.

These projects envisage provision of a total of 21,188 developed plots at a cost ranging from Rs. 911 to Rs. 1,000 per plot to re-house the families removed from the various slum areas. The schemes are based on the principle of aided self-help and the plots will be allotted to families whose income does not exceed Rs. 175 per mensem.

(Continued from page 30)

towards one's own faith but a more intelligent and purer love for it."

Though Gandhiji was very strongly against irreligion he had nothing but love even for the irreligious person. He says "the acceptance of the doctrine of equality of religions does not abolish the distinction between religion and irreligion. That being so some people might object that there would be no room left for equimindedness, if everyone took his own decision as to what was religion and what was irreligion. If we follow the law of love we shall not bear any hatred towards the irreligious brother. On the contrary we shall love him and therefore either we shall bring him to see the error of his ways or we will point out our error or each will tolerate the other's difference of opinion."

Gandhiji passionately subscribed to the Swadeshi cult. But he has pointed out (in the last letter in the booklet under review) that even Swadeshi like any other good thing can be ridden to death if it is made fetish and that this is a danger which must be guarded against. Here are his words of caution which should be ever remembered:—"To reject foreign manufactures merely because they are foreign and to go on wasting national time and money in the promotion in one's country of manufactures for which

(Continued from page 32)

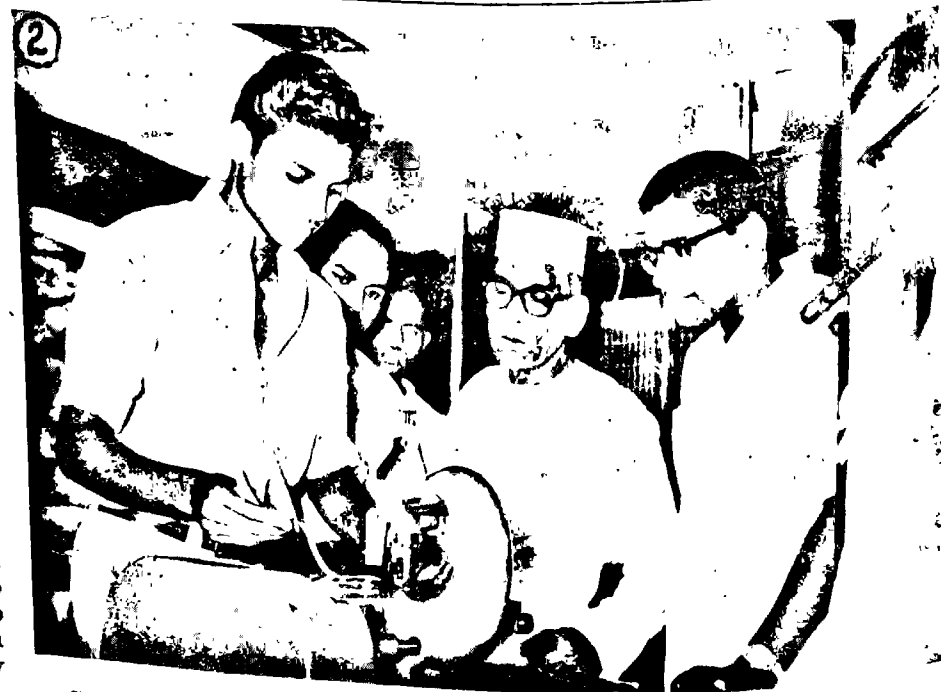
in the wider incidence of cross-pollination in agricultural and other crops, which in turn lead to improvements in the quality and quantity of those yields.

In United Kingdom the Forestry Commission apart from providing the seedlings for Arbor Day planting ceremonies, also allocates plots of developing forest various in stages of development to schools who "adopt" them and are responsible for their care and maintenance. In Italy prizes are awarded to children who have given particular attention to the care of trees, and tours are arranged to observe the results obtained in other areas and in previous years.

In India the observation of Vanamahotsava is no longer considered a celebration or formality to be observed just for a day or a week but has been accepted as an act essential for present progress and as a symbol of faith in the future. Much more important than the mere act of planting trees emphasis is now given on the maintenance and after-care of the planted stock.

it is not suited would be criminal folly and a negation of the Swadeshi spirit."

This booklet which contains the quintessence of Gandhiji's teachings should find a place in every college and school library. The Navajivan Publishing House will do well to bring out a Tamil translation of it.



Sri M. A. Manickavelu, Minister for Revenue, Inspected a Mobile Workshop during his recent visit to Vellore. Sri Narayanswamy, Assistant Director of Industries, Vellore explained to the Minister the working of power-operated machines.

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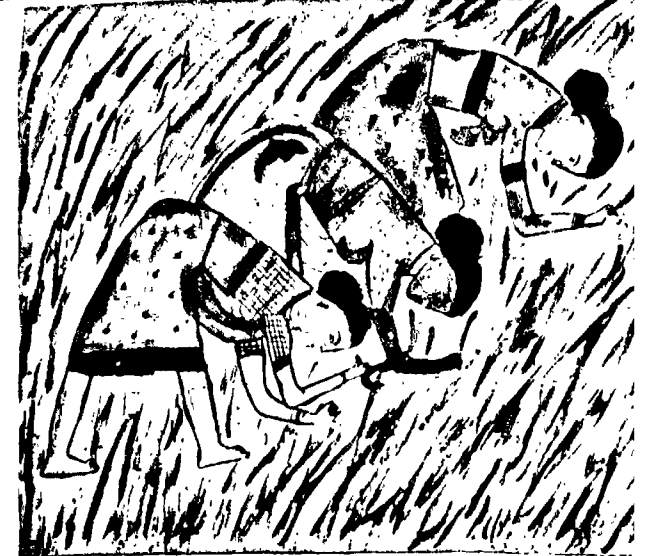
CHILDREN ART

EXHIBITION

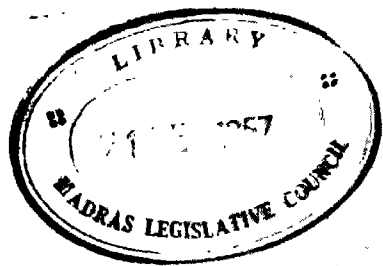
A Children's Art Exhibition was held in the Government Museum in the second and third weeks of July under the auspices of the Government. Sri C. Subramaniam, Minister for Finance and Education, declared open the Exhibition.

School children of various age groups from five to sixteen submitted as many as 1,521 exhibits comprising of drawings, paintings and decorative patterns in various media such as pencil, charcoal, crayon and water-colour. The exhibits were examined by a judging Committee and 171 were selected for exhibition.

Of the selected exhibits, two prizes, first and second were awarded in each of the age groups. Where there were entries of sufficient merit other than the prize winners, highly commended certificates were awarded by the Committee.

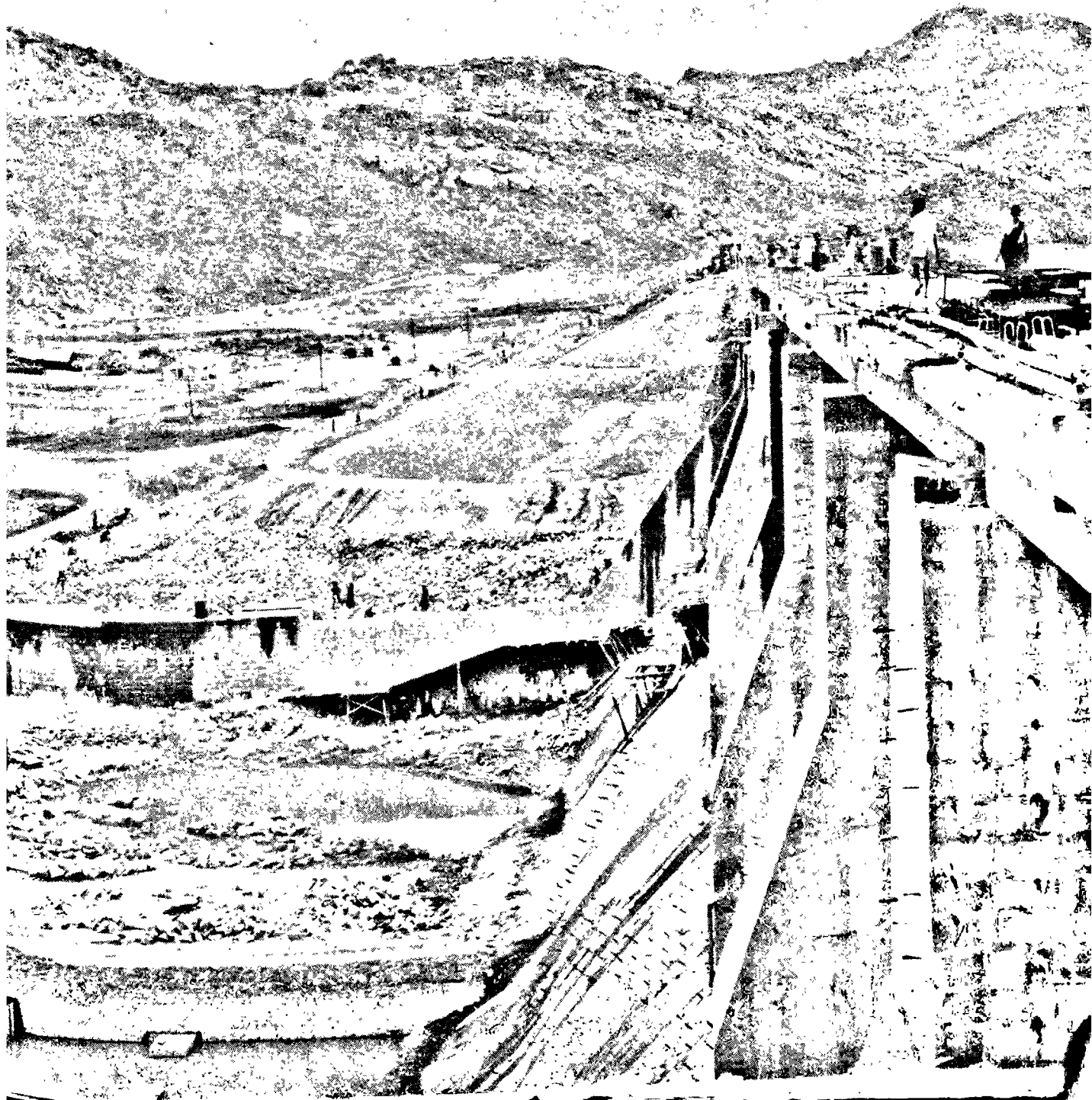
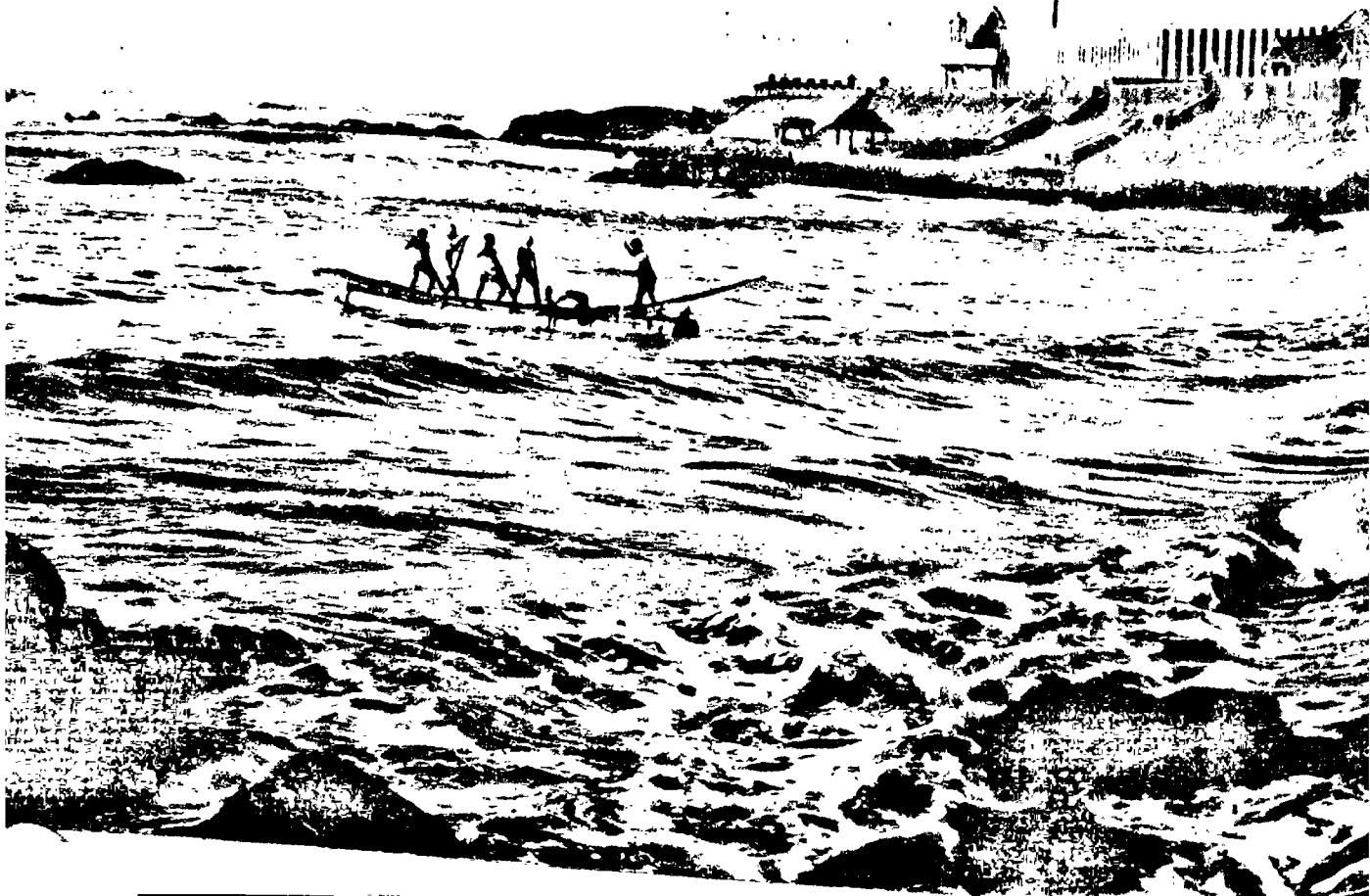


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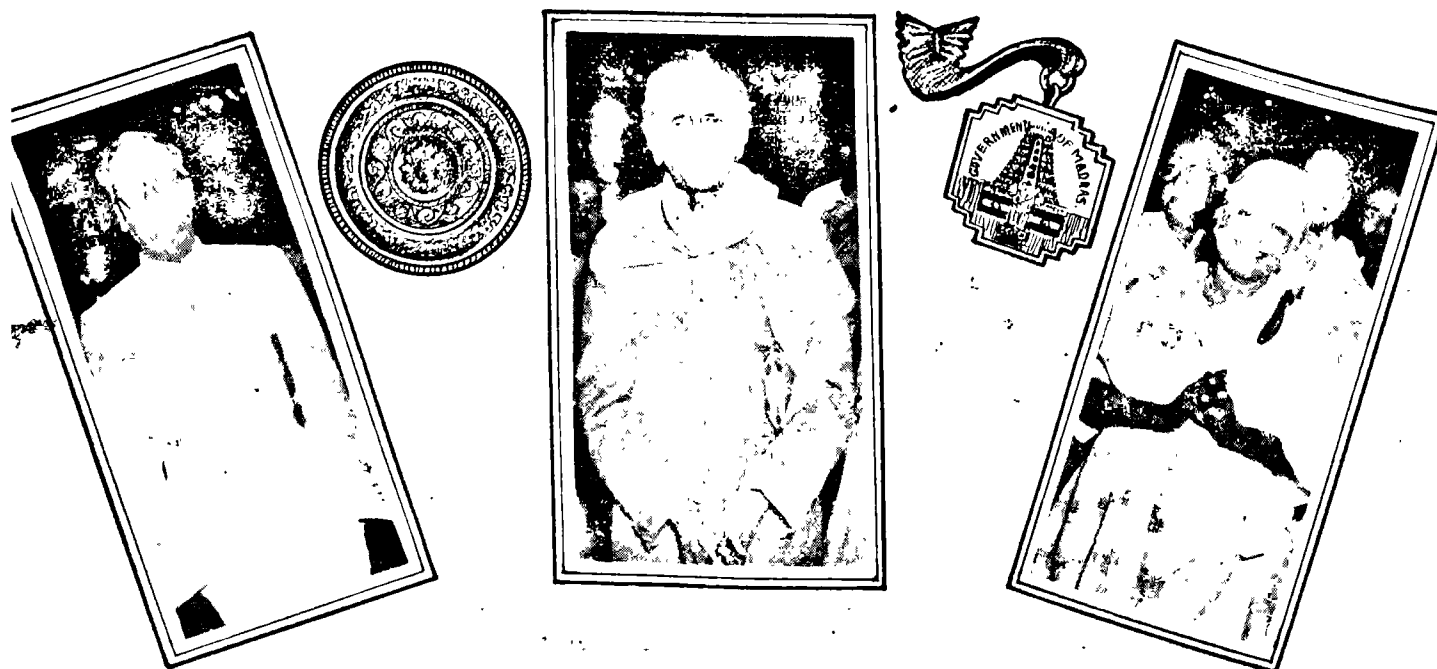
MADRAS *Information*

SEPTEMBER 1957





STATE HONOURS FOR TAMIL SAVANTS

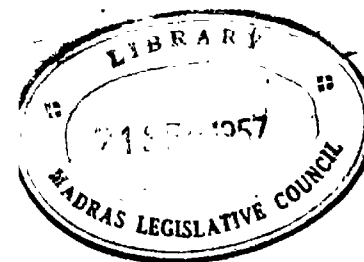


State Honours were conferred on Sri P. Sambanda Mudaliar, noted playwright, Dr. M. Varadarajan, Tamil scholar, and Srimathi K. B. Sundarambal, famous musician and actress in recognition of their eminent service in the fields of art and literature, on the occasion of the commemoration of the Centenary of the First Struggle for Freedom. The awards were presented by the Governor Sri A. J. John, at Rajaji Hall on August 16, 1957.

Sri K. Kamaraj, Chief Minister, Sri C. Subramaniam, Minister for Finance, Sri P. V. Rajamannar, Chief Justice, spoke in appreciation of the meritorious service of the recipients of Honours.



Price, 20 Naye Paise.



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"WE SEEK TO SERVE AND NOT TO COMPETE"

September 1957

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On the cover page: A view of Rupees Two Crore Krishnagiri Reservoir Project which is nearing completion. Waters impounded in the dam were let out for irrigation on the Independence Day.



By Sri R. PARTHASARATHI, Director of Khadi.

It was nearly four decades ago that Mahatma Gandhi rediscovered the Charkha for the villagers who had no occupation during nearly six to eight months in the year, when there were no agricultural operations. The All-India Spinners' Association was constituted with Mahatma Gandhi as its first President. Khadi was one of the main items of Gandhiji's constructive programme ever since 1921. The gospel of the Charkha was preached by Gandhiji in season and out of season and thus it was that Khadi attained the pre-eminent place in the national programme of economic reconstruction. During the period of the struggle for independence ever since Gandhiji took over the leadership of the nation, Khadi was in the fore-front of the programme and became automatically the symbol of freedom and the badge of sacrifice for the country's cause. Till the advent of Independence the

then Governments, both Central and State looked down upon Khadi with benign contempt, if not active aggression. During the early years of the advent of Khadi it had great political significance attached to it and though Gandhiji conceived of the Khadi Programme as one of the main solutions for rural unemployment and thus invested it with economic significance, yet its economic value was overshadowed at that time by a sense of patriotism which became the main stay for the movement.

With the advent of independence however Khadi naturally lost much of its political significance except perhaps its hallowed association with the struggle for independence. It therefore became necessary for Khadi enthusiasts and economists to emphasise its real and more lasting significance as an economic solution rather than

a patriotic or political urge. The outlook of the Government also underwent a change and Khadi began to attain an honoured place within the portals of Government with people's repute at its head began to look upon it with a more practical and kindly attitude than its predecessors.

The All India Spinners' Association started under Gandhiji's leadership and guidance penetrated into the villages and set up a number of production centres by introducing the Charkha, distributing cotton, collecting and purchasing yarn from spinners and enlisting weavers for production of Khadi out of the yarn so collected. Khadi stood in the fore-front of this movement and was the largest producer of Khadi; Tamilnad Khadi became, in course of time, a by-word for quality. Madras was the first State—and remains so still—to take

up Khadi work as a Government Scheme of rural development and to give it a prominent place in its ameliorative welfare programme.

State Government's Scheme.

In 1946 the Government took over from the All-India Spinners' Association four main centres covering 136 villages consisting of 1,800 spinners and over 500 weavers and introduced what is known as the "Intensive Khadi Scheme". The Scheme was blessed by Mahatma Gandhi who advised the Government then, to frame a scheme by selecting a group of compact villages in which Khadi had made some progress already. The main centres selected were Vellakoil, and Avinashi in Coimbatore District, Chinnasalem in South Arcot and T. Kallupatti in Madurai, Payyanur in Malabar and six Main Centres in the Andhra districts of the then undivided Madras State. With this nucleus, Government's Khadi Scheme started ten years ago and has since grown rapidly into an expanding development scheme.

The pace, growth and development can be well judged by the fact that now there are nearly 90,000 spinners coming under the Government Khadi Schemes and nearly 2,500 weavers. The total production of Khadi in Government centres has risen from about 5 lakhs of yards annually when the Scheme started ten years ago to nearly 25 lakhs of yards now.

The value of Khadi produced has risen from nearly Rs. 2½ lakhs in 1947-1948 to nearly Rs. 55 lakhs in 1956-57. The number of Main Centres has increased now to seven. There are now seven Main Centres and forty nine sub-centres and nearly fifty Visiting Centres functioning, covering over 500 villages.

(These figures relate only to the Government Scheme; the Akhil Bharat Sarva Seva Sangh, and a few other institutions have an equal number of centres, if not more and their production a little over that of the Government).

The working of the Khadi Scheme was originally under the Director of Rural Welfare and later under the Joint Development Commissioner. With the enormous development and progress of Khadi and the importance that it has attained in the Second Five-Year Plan and with the advent

of the Ambar Charkha Programme, the Government found it necessary to set up a separate Department for Khadi Development last year.

When the Government took over some of the Khadi Centres from the All India Spinners' Association in 1946 it had to take over also the staff in these Centres and except for one or two Officers appointed for supervision the administrative machinery was practically confined to the two sections in the Secretariat Department under the Joint Development Commissioner. Experience and the peace of progress have necessitated the gradual expansion of the administrative machinery also.

Administrative Set-up.

Originally the set up was as follows:—Each Main Centre was managed by an Officer called the Centre Khadi Officer and he was assisted by two or three Assistants whose ranks were distinguished as First and Second Grade Assistants. Each Sub Centre was put in charge of a First Grade Assistant who was generally assisted by two Second Grade Assistants. Most of the Centres had also Boy Assistants and in heavy yarn centres yarn sorters were engaged. Three Khadi Inspectors were appointed and it was their business mainly to inspect the quality of cloth, the looms and the Centres. One Officer

designated as the Khadi Special Assistant with Headquarters at Tirupur was put in charge over all these Centres. With the increase of production and the necessity for proper distribution it was found necessary to have a central place for stocking the Khadi produced in the Government Centres and to distribute for retail and wholesale sales. A Central Godown was therefore set up under the charge of a Manager in 1955. In order to meet the growing demand for several coloured and printed varieties in Khadi it was also found necessary to set up a Dyeing and Printing Unit. The Government Khadi Dyeing and Printing Unit came into existence in 1955 and was put in charge of technically qualified Manager. All these three Officers are stationed at Tirupur and have their ministerial staff to assist them.

This may be taken as the field organisation of the Intensive Khadi Scheme and this set up still continues. At the headquarters level there was a Khadi Special Officer under the Joint Development Commissioner to supervise the work in the various centres and also to look after the administrative side in the Secretariat. Originally the Director of Rural Welfare was directly dealing with the subject of Khadi at the Secretariat level. Later the Joint Development Commissioner who replaced the Director of Rural



A Self-Sufficiency Khadi Centre run by the State Government Villagers get the money handing over yarn spun by them.

Welfare became the chief administrative head of the Khadi Scheme. With the constitution of a separate Department for Khadi the head of that Department, viz., the Director of Khadi was invested with the administrative functions of the Director of Rural Welfare, or Joint Development Commissioner, so far as the Khadi Schemes were concerned. At the Secretariat level the Joint Secretary to Government, Public (R.D.P.) Department is the authority over the Director of Khadi.

The Khadi Scheme come under four main heads.

1. Intensive Khadi Scheme.

The Department has now under its direct control three main schemes the first of which is the Intensive Khadi Scheme with which originally the Government started the Khadi Scheme. The areas and centres in which there were already spinners were brought under this scheme. More Sub-Centres are being added on to the existing ones as the scheme develops. The basic product necessary for Khadi or for cotton textiles, for a matter of that is of course cotton. Mahatma Gandhi's idea which was considered idealistic, was that every spinner should cultivate his or her own cotton, gin it, card it and spin it into yarn. But with the increase in the number of spinning and textile mills cotton has become a commercial crop and cotton growing

has been turned into a profitable occupation and a speculative industry. So the spinners have to buy their cotton in the market; instead of leaving them to their own resources in the matter, it became the primary duty of the Khadi organisations to procure cotton and sell it at a fair price to the spinners. Thus cotton is procured during the season in the open market and stocked in the various centres for supply to the spinners at almost the cost price, which ranges from a rupee to one rupee two annas or three annas per pound.

To augment family income.

Charkhas and accessories and implements are also supplied to spinners. In the old days the spinners were using their traditional wheel Charkha with its big wheel hoisted up vertically on two wooden rests. At the instance of Mahatma Gandhi a much lighter and more productive type of Charkha known as the Kisan Charkha was introduced and it has become now very popular. On account of its speed-wheel it is quicker and easier to operate. The cost of a Kisan Charkha is Rs. 7. These are supplied or used to be supplied till very recently at half costs to the spinners, the Government of India bearing half the cost by way of subsidy. Very recently the Government of India has modified this subsidy to one of Rs. 2-8-0 or half the cost

whichever is less. The spinners are paid 4 annas per hank (a hank is made up of 853 yards of yarn). In the earlier days, spinning wages were paid according to the quality of the yarn. But at the instance and under the inspiration of Gandhiji a minimum wage was fixed and the price at which yarn should be purchased from spinners was fixed at four annas per hank irrespective of quality or fineness. This would of course include the cost of cotton. The spinners can get about 2 to 2½ annas as wages per hank. The normal quality of yarn produced by spinners varies from 15 counts to 30 counts. The majority spin about 18 counts. Thus from one pound of cotton 15 hanks can be produced allowing a small percentage for wastage. A pound of cotton would cost anywhere between Re. 1 to Re. 1-3-0. A spinner can normally spin about 10 to 12 hanks per week. An average spinner would get anywhere between Rs. 2 to Rs. 3 per week. This would be a considerable addition to the family income especially taking into account the fact that any occupation involving hard manual labour outside their own homes like breaking road metal a woman earns about eight annas per day and a man about twelve annas to Re. 1 a day. Taking the average annual income of an agricultural family in a village at Rs. 1,000 (with two able bodied male members earning Rs. 1-8-0 a day); the additional income by spinning, taking two (women) members of the family as spinners would augment the family income by 25 to 30 per cent. True to the basic policy of introducing the self-sufficiency ideal, in almost all the centres, the spinners deposit a part of the yarn produced by them for their own use. Usually this is one fourth of the yarn and in some centres even up to 50 per cent. When sufficient quantity was accumulated, the spinners are given Khadi of the value equivalent to the value of yarn held in deposit.

Higher wages for Khadi weaving.

The spinners bring their yarn which they spin at home to the nearest Khadi Centre. Generally these are not more than three to four miles away from their homes. There are also what are known as Visiting Centres where on certain days of the week arrangements for purchase of yarn have been made and the one or two Assistants attached to the nearest Sub-Centre visit the

places on the specified days for the purchase of yarn. There are 50 such Visiting Centres working under the Intensive Khadi Scheme.

The yarn thus purchased is sorted out in the centres according to the counts and the quality. Then they are issued to the weavers for weaving particular varieties, in such of the centres or sub-centres where there are Khadi looms and weavers available; there are other centres which are purely spinning centres and the yarn collected in these centres is sent to the nearest weaving centre.

Khadi weaving, which of course was the traditional occupation of the weavers in our country, till about a few decades ago, has become now a specialised art which requires special skill, knowledge and experience. The number of looms available for Khadi weaving is still much too low for the quantity of yarn available and hence the weavers dictate their own terms. Thus a higher wage has to be given for Khadi weaving than for weaving mill yarn. The wages range from eight annas per yard to Rs. 2 per yard. That is one of the main reasons for Khadi being higher in cost than mill or handloom cloth.

2. Extensive Khadi Scheme.

The Extensive Khadi Scheme which has recently been introduced by the Government is really intended to introduce spinning in areas where it has not taken root already. There is vast scope for enlisting a large number of spinners. At present the bulk of the spinners are in the dry areas where the agricultural operations depend on the scarce rains and in any case the agriculturists have no work in the fields for nearly eight months in the year. This is one of the reasons why thousands of people have willingly taken to spinning in these areas. Several other villages in the not so dry districts have been left untapped; but experience has shown that even in these areas if Charkhas are made available and facilities given for spinners a large number of people are ready to come forward to take to spinning. With this idea in view the Extensive Khadi Scheme has been introduced in almost all the districts in the State. Twenty-one centres are now functioning in ten districts with one Khadi Worker for each Centre and two Superintendents under whom these Khadi



A Khadi Exhibition was organised in connection with the celebration of the Centenary of the first Freedom struggle. Sri R. Parthasarathi, Director of Khadi, is seen conducting Sri M. Bhaktavatsalam, Minister for Home, through the Exhibition. Sri G. Venkatachalapathi, Joint Development Commissioner, is also seen in the picture.

Workers function. Khadi Workers, introduce Charkhas to new spinners and collect the yarn and the collected yarn is sent by the Superintendents to the Intensive Khadi Centres for Weaving. The Charkhas are issued to spinners on condition that they should be used regularly and at least 7½ hanks of yarn produced on each Charkha per month (This minimum is only for the beginners.)

Extensive Khadi Scheme in the National Extension Service Blocks.

The Extensive Khadi Scheme was introduced in 19 firkas during the year 1949-50 and was extended in 30 more firkas in the year 1950-51. The services of the Rural Welfare Officers and the Gramasevaks employed in the Rural Welfare Scheme were availed of to implement the scheme. With the partition of the Andhra State in 1953, the scheme was in force in 33 selected firkas and parts of firkas administered by 13 Rural Welfare Officers assisted by the Khadi Workers and Gramasevaks in the Madras State. Consequent on the merger of the Rural Welfare Scheme in the National Extension Service in 1953, the working of the scheme has been entrusted with the Block Development Officers in charge of National

Extension Service blocks of three respective firkas. The scheme is now in force in 55 National Extension Service blocks. Under the scheme Charkhas are supplied to spinners at concessional rates equal to half the price or Rs. 2-8-0 per Charkha whichever is less. The spinners are also supplied with other implements and cotton where necessary at cost price and facilities are provided to enable them to have their yarn woven into Khadi.

One Extension Officer, Khadi, and three Spinning organizers are in charge of the Khadi Scheme in each block under a Block Development Officer.

3. Comprehensive Khadi Scheme.

Madras State which has been a pioneer in several development programmes, including Khadi, has also shown the way in the Community Development Programme, in which Khadi has been given a very important place. Since the Community Development Programme is based on the principle of increased production and increased employment, the Khadi industry has been considered the only easy and simple industry which can be introduced on a very large scale in the villages and provide an effective answer to mass unemployment and under-employment at a very low cost.



To meet the increased demand from general public for Khadi, sales depots are opened in Madras City and other important centres of the State.

This is the only industry which does not need the huge capital, heavy machinery (most of it to be imported at great cost to the detriment of our foreign exchange) required for heavy industries of mass production with labour saving devices. It is the only cottage industry which can be introduced and function within a short period and produce quick and immediate results. The comprehensive Khadi Scheme therefore was introduced in the Community Project areas and the Community Development Blocks as a measure of meeting the under-employment problem in the villages. At present the scheme is in force in 51 Community Development Blocks.

The general outline of the scheme is as follows: Charkhas will be introduced at the rate of 1,000 per Block in a year at the subsidized rates. The chief responsibility for this is that of the Block Development Officer concerned. The cotton will be purchased and supplied to spinners at cost price. Yarn produced will be purchased by the Block Development Officer and sent to the Manager, Central Godown, Tiruppur. In each Block one Khadi

Extension Officer and three spinning Organizers are put in charge of this work under the Block Development Officers. Though this scheme is not directly worked by the Khadi Department the technical supervision over the khadi work done in the Block Development areas, is done by that Department.

4. Ambar Charkha Programme.

One of the important schemes taken up recently for implementation by the Government through the Khadi Department is the Ambar Charkha Scheme. Before the scheme itself could be explained it would be necessary to know something about the Ambar Charkha. So much has been stated and published about the Ambar Charkha that it would be useful to know what exactly is this Ambar Charkha. The name has been often misapplied to various other types of spinning machines. But what is particularly known as the Ambar Charkha is a four spindle spinning machine which is operated by hand with a wooden frame 28" in length 16" in breadth and 21" height weighing 26 lb. and a number of wheels, pulleys

and rings. The origin of the Ambar Charkha is itself of interest to us because the inventor or the person who discovered the improved method of hand spinning belongs to the Tirunelveli District. His name is Ekambaram from which is derived the name of the Charkha he discovered. The principle on which this Charkha functions is based on the spinning and drafting technique in the mills. While on the ordinary wheel Charkha or Kisan Charkha drafting is to be done by the skill of hand by drawing out the yarn from the sliver which is held in the hand and the twisting also has to be done by the hand, Sri Ekambaram devised his spinning machine with an automatic device for drafting the yarn from long slivers, automatically fed to the spindles and for automatic twisting and winding on bobbins. When Sri Ekambaram devised his spinning machine it had only two spindles. The Akhil Bharat Sarva Seva Sangh took up an extensive research over the original spinning machine of Ekambaram, extending over nearly four or five years and finally brought out the four spindle Ambar Charkha of the present day.

Each Parishramalaya is equipped to train 100 spinners at a time. Each course consists of three months. At the end of each day the spinner should show a minimum capacity to produce a minimum quantity of yarn of specified quality. During the period of training the spinner will get the wages fixed for the Ambar Charkha yarn. After the training period is over the spinner will be provided with an Ambar Charkha which will be given to him or her on a hire purchase basis. The cost will be recovered from the spinner in easy monthly instalments within a period of four years, i.e., 48 instalments. The instalments need not be paid in cash, but out of the yarn produced by the spinner, a small portion or percentage of yarn will be held as deposit and the value credited towards the instalment. It is Sri Vinobaji's idea that self sufficiency in cloth can be achieved through the Ambar Charkha at the village level, taluk level, district level and regional level. Each Parishramalaya has at present 5 Instructors but this may be increased to 10 Instructors if and when the required number is available. Each Instructor will train 10 spinners at a time. For purchasing the yarn from spinners and converting into cloth the same type of organization as for the Intensive Khadi Scheme, viz., a production centre with a Centre Khadi Officer and Assistants is being entrusted with the work.

Two Field Officers for organizing and supervising the Ambar Charkha Scheme in execution within two defined regions are now functioning under this Scheme. So far nearly 500 spinners have been trained and another 300 are under training. A Vidyalaya has been functioning at Kangayam near Tiruppur for giving training to Instructors necessary for the Parishramalayas. During this year, it is proposed to set up 40 Parishramalayas. At the end of the year, it is expected that nearly 4,000 spinners would have received training on the Ambar Charkha. For the whole Five-Year Plan period the State Government has undertaken to introduce 25,000 Ambar Charkhas and train 25,000 spinners. This is a target easily achievable, if there are the requisite number of trained personnel and required number of Ambar Charkhas available.

Sri Vaikuntlal Mehta, Chairman of the Khadi and Village Industries Commission has estimated that it would be possible to give employment to 50 lakhs

of people in India during the Second Plan period. The Government of India has agreed to subsidise for 180,000 Ambar Charkhas this year. If the desired target is achieved and results are encouraging, as they are bound to be, from next year there will be provision made for increasing the number of Ambar Charkhas.

Marketing.

Till recently the Government did not have any considerable organization for marketing the Khadi produced in the centres. Each production centre itself conducted retail selling in these places. The Khadi consumed by spinners for self sufficiency purposes came to about a fourth of the total productions. Supplies to State Government and Government of India Departments accounted for nearly a half of the total production. There were not more than five Retail Sales Depots in towns. With the increase in production it has become necessary to increase the number of Sales Depots to make the Khadi produced by Government more easily available to the public. There are now nine Sales Depots in the urban areas—four of them in the city itself. The other Sales Depots are in Coimbatore Madurai, Kumbakonam, Cuddalore and Tiruchirappalli. Seven more Sales Depots are to be opened shortly one in the city and six in the districts (at Kancheepuram, Vellore, Salem, Tirunelveli, Karaikudi and Nagercoil).

The wholesale supplies to Government of India are mainly effected through the Khadi and Village Industries Commission. Besides these supplies, the requirements of Government Departments of this State as well as other States are directly supplied by the Khadi Department. Enquiries have also started coming from foreign countries for Khadi.

Special efforts are being taken, to improve the quality of Khadi and to introduce new varieties. With the increase in production, improvement of quality, introduction of new and colourful varieties, and use of Ambar Charkha yarn which would ensure fineness and also gradual reduction in price, the popularity of Khadi is bound to increase in the near future and the demand for Khadi varieties will be on the upward trend, which has already started.

C.D. and N.E.S. Areas

Progress Reviewed

The Rural Development Board of the Madras State met in the Secretariat, in the last week of July. The Chief Secretary who is the Development Commissioner presided over the meeting. Secretaries to Government and Heads of Departments concerned were also present.

The Board reviewed the physical achievements in the Community Development and National Extensions Scheme areas during the quarter ended 31st March 1957 as compared with the achievements for the quarter ended 31st March 1956 and also, the cumulative achievements for the period ending 31st March 1957. For the sake of comparison the cumulative achievements in the Project areas of other States up to the period ending 30th December 1956 were also considered. The Board noted with satisfaction the progress made under the following heads during the quarter ended 31st March 1957:—

Number of compost pits dug, seeds distributed, area under fruits and vegetables, area reclaimed, area brought under irrigation, pedigree animals supplied, cattle inoculated and vaccinated, fingerlings supplied, rural latrines constructed, drains constructed, village-houses constructed, number of Co-operative societies started, and new members enrolled in the Societies, number of Vikash mandals and Mahila Samaties organized.

The Board issued directives for the speedy issue of First aid kits to Grama Sevaks and also First aid Veterinary kits. The Board was apprised of the orders issued by the Government for the speedy constructions of the Quarters for the office of the Block Development Officer and the Agricultural Depot as well as the quarters for the block staff.

Khadi will solve rural unemployment

Research is still going on for further improvements in certain aspects and for further simplifying the mechanical construction of the Ambar Charkha. In this connection it will be of considerable interest to know from a recent report that Sri Vinobaji has come out with a clear statement that four spindles are about the utmost limit to which he can reconcile himself with regard to the Charkha.

Advantages of Ambar Charkha.

The advantage of the Ambar Charkha apart from its automatic feeding, draft twisting and winding is that the output will be more. As long ago as 25 or 30 years back Mahatma Ghandhi offered a prize of Rs. 5,000 for an improved Charkha which could produce more yarn within a short period but without replacing the individual human labour of one person. Later on this prize was raised to Rs. 1 lakh but till now no improvement Charkha has ever come up to the standard specified by Mahatma Gandhi. Even recently the Khadi and Village Industries Commission has announced

a similar prize of Rs. 1 lakh for an improved Ambar Charkha and specifications and conditions have been published in the papers recently.

The Ambar Charkha set comprises three units; one is the spinning unit, the other is the slivering unit and the third is the carding unit. The slivering unit is called the Belni and the carding unit is called Dhunai Modia. The Charkha set costs from Rs. 100 to Rs. 120.

It has been estimated from experience gained that a trained spinner can spin on the Ambar Charkha on an average about 8 hanks of medium quality yarn per day of 8 working hours. It has been estimated by the All-India Khadi and Village Industries Board which first drew up the Ambar Charkha Scheme that it would be possible to give employment to nearly 5,000,000 of people in the Second Five Year Plan period through the Ambar Charkha. The average that a spinner can earn by working the Ambar Charkha is estimated to be from 12 annas to Re. 1 per day. The price of Ambar Charkha yarn has been fixed at Re. 0-2-9 per

hank. Taking the cost of cotton as Re. 0-1-3, the wages will be Re. 0-1-6 per hank which will be much less than the rate fixed for traditional Charkha yarn. This is for 16 to 20 counts; but the finer the yarn the more will be the wages earned. Since the Ambar Charkha yarn will be uniform and with good twist it will be easier for the weavers also to weave with this yarn and therefore the weaving wages would also be brought down. Thus the cost of Khadi from Ambar Charkha yarn can be expected to be reduced by a maximum of 40 per cent of the present cost of ordinary Khadi. Through a phased period of levelling and equalisation it will be possible to bring down the cost of Khadi considerably through the Ambar Charkha.

Training Programme.

The State Government took up the Ambar Charkha Programme last year and the first Parishramalaya or training centre for the spinners was opened by our revered President at Tirumangalam on August 16 last year. There are now four Parishramalayas in the State.



Krishnagiri Waters Irrigate Salem Fields

THE RUPEES TWO CRORE Krishnagiri Reservoir Project was opened on August 15, the tenth anniversary of Independence to irrigate 7,500 acres of parched fields of Salem District. The Project was sanctioned in November 1954 and the work was inaugurated in January 1955. About ninety per cent of the work on the project and canals is completed. Built across the river Ponniyar near Krishnagiri this part-earth and part-masonry dam will be 3,250 feet long and is designed to impound monsoon flows in the river.

The Ponniyar has its source in the south-eastern slopes of Chennakesava

Two main channels extending over a distance of nine and eight miles respectively carry waters of Krishnagiri Reservoir to irrigate 7,500 acres of parched fields.



Hills in Nandidurg, Mysore State. The total length of the river from its source to sea is 260 miles of which 53 miles are in Mysore State, 110 miles in Salem, 21 miles in North Arcot and 76 miles in South Arcot districts of Madras State. The drainage area of the river is nearly 5,000 square miles. There is practically no flow in the river except during the monsoonic seasons when too, it comes in flash flows of short duration, immediately after which the flow dwindles down to a trickle of a few cusecs. These features preclude the use of the river flows in the most part of its reach to any large diversion scheme without storage reservoirs. The necessity for

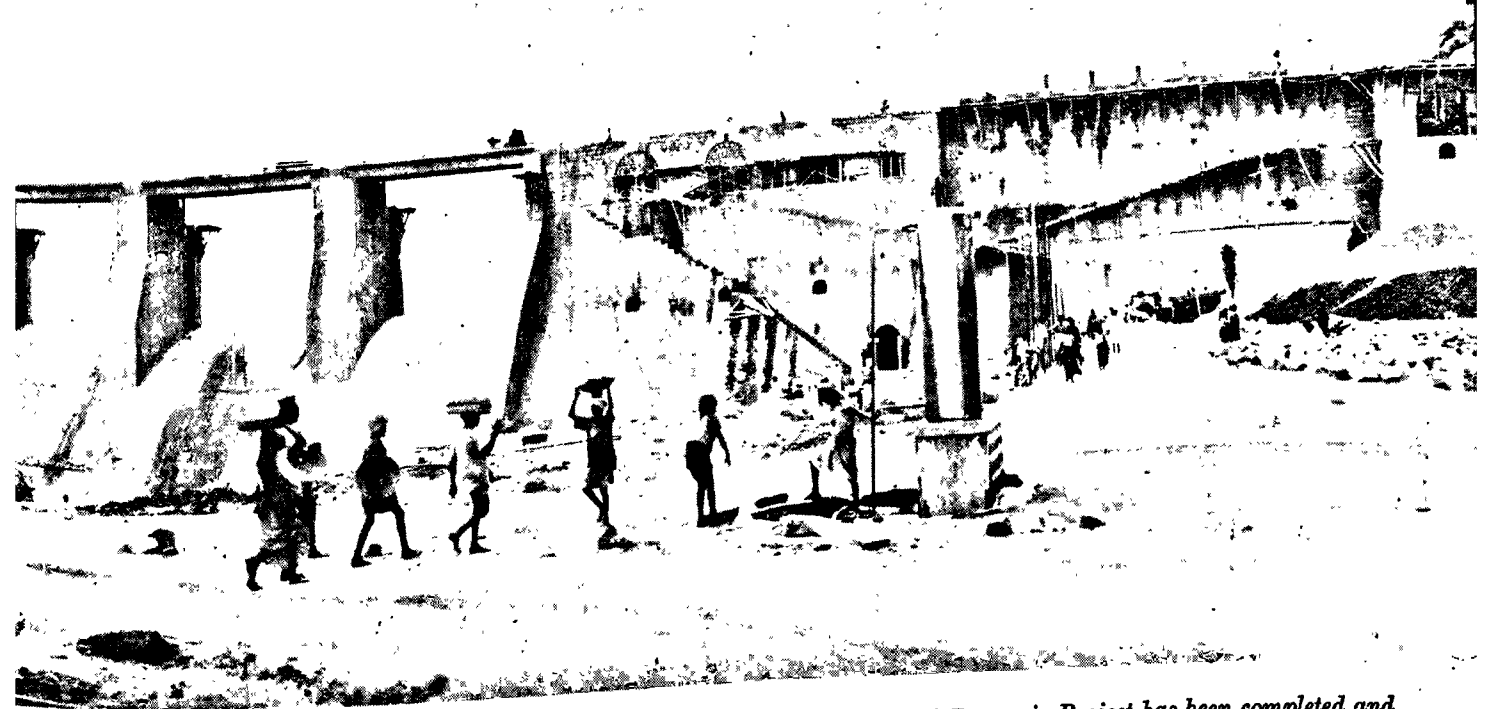
major irrigation project in the Salem district has been felt for quite a considerable time and construction of a reservoir in the district was proposed so long ago as 1875 by Mr. Thomas, the then Collector of Salem district. But the project was then dropped as adequate data was not available about the supply and as the scheme was not remunerative. The post-war conditions and the necessity for more food production in the State gave an impetus to revive the scheme.

The site of the proposed reservoir is 6½ miles from Krishnagiri and about 2 miles west of miles 163¼ of the Madras-Kozhikode Trunk road in the village limits of Periamuthur of Krishnagiri taluk. The reservoir will be formed by a dam partly of solid masonry and partly of earth. The portion of the masonry dam in the river crossing will have a spillway section 390 feet long to discharge a maximum flood of 1,47,400 cusecs. The total length of the dam including the earth dam will be 3,250 feet.

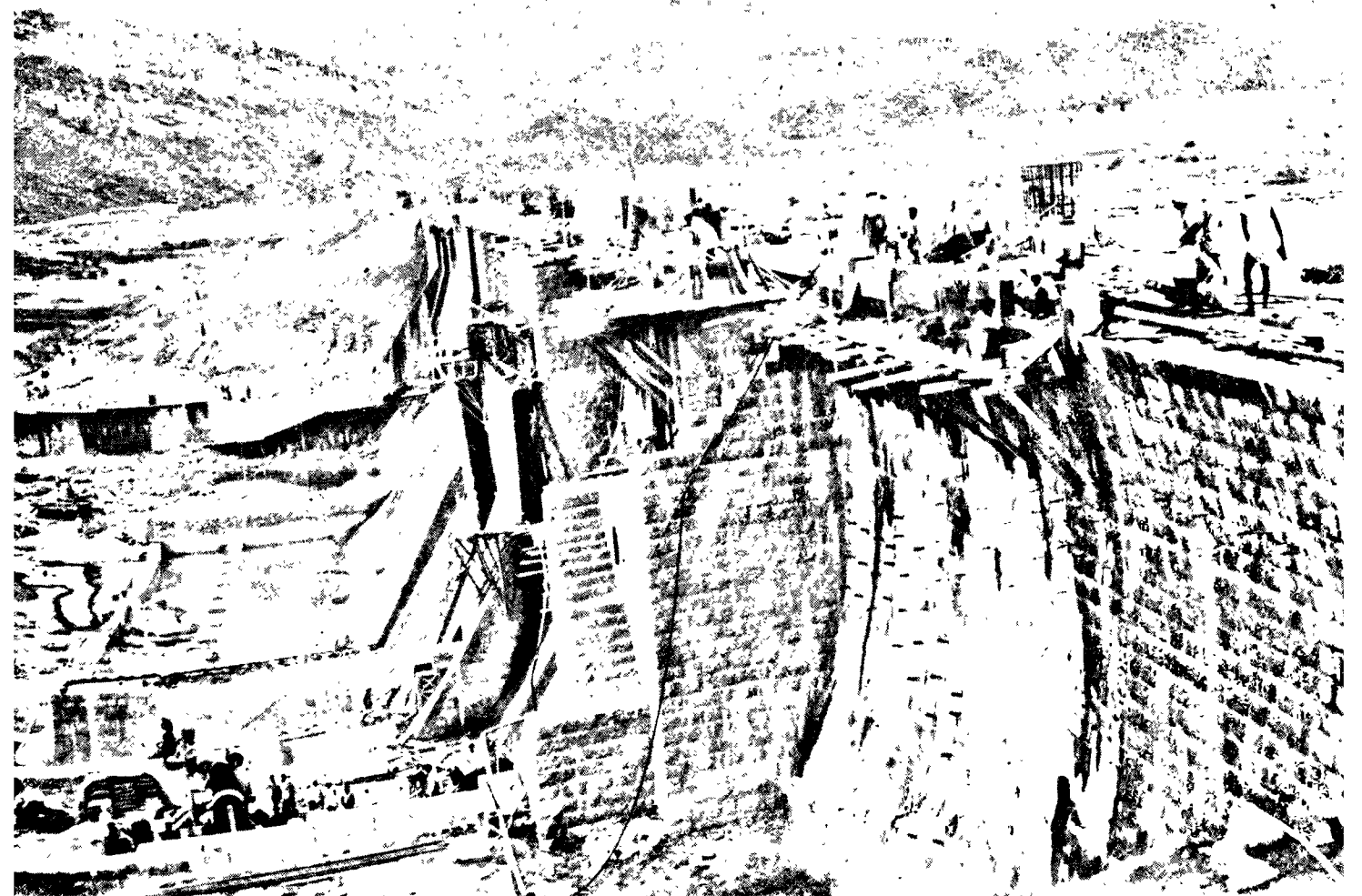
The reservoir will hold 2,410 m.cft. with 20 feet gates fixed over the crest of the overflow section. The scheme will benefit an area of 7,500 acres all in Krishnagiri taluk, of which, the left main channel 9 miles long will irrigate 3,440 acres and the right main channel 8 miles long will irrigate 4,060 acres.

The estimated cost of the project is 2.02 crores. The additional food grains expected from the project will be 3,500

(Continued on page 12)



About ninety per cent of the masonry and earthdam works of Krishnagiri Reservoir Project has been completed and waters impounded were let out for irrigation on August 15, 1957.



Pullambadi and New Kattalai Canal Schemes

Will Bring Prosperity to Tiruchi District

By Sri U. ANANDA RAO, Chief Engineer, Irrigation

The Pullambadi Canal will take off above the Upper Anicut from the river Cauvery on its left side and will run almost parallel to and at a short distance from the existing Peruvalai channel for a length of 25 miles down to the Nandiar river crossing and thereafter will continue its run for another 29 miles below the crossing, tailing into the Sukran Eri. The total area to be irrigated by this Channel is 22,114 acres of which 8,831 acres will be direct ayacut and 13,283 acres will be under tanks.

It is observed that every year considerable quantities of water in excess of the requirements of the delta irrigation is wasted into the sea. It is, therefore proposed to utilise this excess flow which is wasted, by diverting it through a canal to feed a number of tanks existing and to be formed, and irrigate lands commanded by them.

In the south east portion of Lalgudi and Udayarpalayam taluks of Tiruchirappalli district, lies a large alluvial

tract eminently suited for wet cultivation but lacking in irrigation facilities. Only a portion of this extent is being irrigated by the rainfed tanks. These large tracts of land can be brought under irrigation of the surplus waters of the Cauvery are utilised. There has been representation from the people for a long time to utilise the waters of this Cauvery for irrigating this extent. The Peruvalai Channel taking off from above Upper Anicut stops short of the above area and also its present size and length do not admit of any extension of irrigation under it. Therefore it was decided to excavate a new canal to supply the surplus from Cauvery to this area.

People's wish fulfilled.

The people of these taluks have been agitating for the provision of better irrigation facilities to their lands for a long time. In order to comply with the demands of the local people, several alternative schemes were considered.

The first proposal was to carry out the improvements to the existing Peruvalai channel and its banks so as to carry some extra supply for irrigating an additional area. It was found that even by carrying out improvements to the Peruvalai channel, no appreciable extension of irrigation would be feasible. Another suggestion was to widen the channel and extent it beyond the Nandiyar river crossing in order to afford irrigation facilities to the area under reference. This was also investigated and found not feasible. Other alternative schemes were also considered but were dropped after investigation due to their ineffectiveness for one reason or other. It was in 1945 that the scheme, more or less in its present shape, was taken up for investigation.

At first, investigation of a 45-mile canal taking off from above the Upper Anicut for irrigating directly an area of 14,000 acres were taken up. But during the course of investigation it was found that, by extending the

canal by 9 miles, tailing into the Sukran Eri, a large rainfed tank in the Udayarpalayam taluk, the ayacut could be increased to about 22,000 acres by extending irrigation under the tank. The total irrigable area under this scheme comes to 22,114 acres out of which about 8,831 acres are direct ayacut and the rest indirect ayacut under tanks.

Wet cultivation.

The area commanded by the proposed canal lying south of Pullambadi, Kamarasavalli village and east of Nadiar is a compact block of almost deltaic nature with a number of spurs and drainage course running north to south. The soil of the land is well suited for wet cultivation though due to lack of irrigation very little area is wet at present. Most of the area is under dry cultivation, the principal crops being cholam, ragi, groundnut, gingelly, etc. By the execution of the proposed scheme the entire area will be brought under wet cultivation.

The head sluice for this canal will be located in the left bank of the Ayyar River about 500 feet above the head sluice of the existing Peruvalai Channel. There will be a leading channel in front of the sluice up to the deep bed of the river. The head sluice will have 5 vents of 13' x 5½' each capable of discharging 1,073 cusecs with

a head of 0.25'. The proposed canal will have practically no irrigation down to Nandiar river (i.e.) for 25 miles of the canal and the irrigation will start only below the Nandiar river.

29 tanks will receive supply.

There are as many as 29 tanks which will receive the supply of the Cauvery water through this new canal. Besides it is also proposed to form 8 new tanks and to effect necessary improvements to the existing tanks. The capacity of all these tanks is 688 m.c. Ft. and the total ayacut under them including the existing ayacut is 13,283 acres. The area under direct irrigation is 8,831 acres. The right bank of the Canal will carry a road way with a top width of 10 feet while the left bank will be only 6 feet wide at top. Several drainage courses cross this new Canal and none of these drainages will be absorbed in the Canal. In certain reaches of the canal deep cutting is necessary and the maximum depth of cutting will be 22 feet and the maximum length of this deep cutting will be 2,600 feet. The canal in the reach 8/7 to 10-2-38 runs through the built-up areas of Ulundungudi, Manachanallur and Melasidavimangalam villages. In the last two villages some pucca houses and parts of backyards of others have to be acquired and some alternative to avoid this was considered

but the alignment through these villages was only found to be the best one. However to reduce the width of lands to be acquired in the backyard of houses in Manachanallur village as also to minimise dampness due to the close proximity of the Canal to the house, the reach 9/3-33 to 9/4-27 in this village is proposed to be "flumed". In the reach below Nandiar crossing, it is proposed to construct a bridge since the Railway line from Tiruchirappalli to Villupuram crosses the Canal alignment. The Canal will in addition to the headsluice have 34 Cross drainage works in the first section (up to 25 miles) and 37 in the second section of the new Canal. There will be 36 road bridges in all and two foot bridges besides the distributaries and field bothies.

Rs. 142 lakh scheme.

The total cost of the Scheme works out to Rs. 126.3 lakhs for works or Rs. 142.43 lakhs inclusive of direct and indirect charges. This scheme is the second work included in the Second Five-Year Plan and by its execution there will be additional yield due to stabilising supply to the old indirect ayacut and new production on the new ayacut to a total extent of 9,547 tons of rice costing about 28.6 lakhs of rupees. Besides the water table in the area will rise and facilitate improved supply of water for lift irrigation from wells adjoining the canal.

New Kattalai High Level Canal Scheme

New Kattalai High Level Canal Scheme which is the first of its kind to be taken up under the Second Five-Year Plan is purely a Canal Project. The Canal takes off from Akhanda Cauvery just above the Kattalai Bed Regulator on its right side to utilise the surplus waters of the Cauvery that now go to waste to the sea. It is not the intention to draw any supplies from Mettur Reservoir but to utilise only unimpoundable floods that occur in the delta below Mettur Dam. The New Kattalai High Level Canal will be about 86 miles long and ultimately tails into Mudulamuthuwari in Tanjore district.

Before deciding the final alignment of the Canal, certain alternative schemes were considered. One alternative was to take off a channel at 1½ miles above

the Kattalai bed regulator and run it on a higher contour than the existing High Level channel for a length of 40 miles down to Ariyar and 25 miles beyond it with a reservoir constructed across Ariyar. The second alternative was to remodel the full length of 38½ miles of the existing High level channel to carry the increased discharge required for the additional area besides its own existing ayacut under the tanks and extend the channel for 25 miles beyond Ariyar and also construct smaller reservoirs across Korayar and Kattar. Similarly certain other alternatives were also considered and all of them were dropped since all these alternatives contemplated only direct irrigation. As it was not desirable to encroach on Mettur for such direct irrigation, the scheme was converted into the final

scheme, as now sanctioned for utilising the surplus waters through the existing tanks in the area, which will be repaired and improved to receive larger supplies.

The Project comprises of the following:—

(1) One head sluice just to the right of the off-take of the leading channel of the South Bank Canal above Kattalai Bed Regulator across the Cauvery. The head sluice will have 5 vents of 9 feet by 6 feet which will discharge about 1,048 cusecs.

(2) A right side canal 86 miles long taking off from the head sluice for irrigating a total ayacut of 20,622 acres of which 12,000 acres will be under tanks and 8,622 acres will be

(Continued on next page)



K. Kamaraj, Chief Minister, inaugurated Pullambadi and New Kattalai Canal Schemes in the third week of August in Tiruchirappalli district. Sri P. Kakkan, Minister for Works, presided. Sri U. Ananda Rao, Chief Engineer for Irrigation, is in the extreme left

(Continued from page 8)

tons of rice annually in 25 years out of a cycle of 30 years. The living conditions of the people in Krishnagiri taluk will be considerably improved.

The scheme was sanctioned in November 1954 and the work was inaugurated in January 1955 by the Chief Minister. About 90 per cent of masonry and the earthdam works has been completed and the works on canals are also in full swing.

Being the first major project in the dry district of Salem, great interest has been evinced by the local population. Water will be impounded in the Reservoir during the north-east monsoon of 1957-58, to enable it to be put into commission thereafter. Both the right and left side canals will be completed in all respects and will be ready to benefit 9,000 acres at the rate of 4,500 acres under each of them. The Project was opened for irrigation on August 15, 1957.

(Continued from previous page)

under direct irrigation. The canal is designed to carry the required discharge of about 1,048 cusecs.

(3) Utilising the existing 119 tanks (57 in Tiruchirappalli and 62 in Tanjore taluks) with a total capacity of 881 m.c. ft. to serve an ayacut of 12,000 acres.

The canal in its first reach of 40 miles will have no irrigation. Irrigation both direct and indirect is contemplated only in the second and third reaches below the 40th miles. The existing and proposed ayacuts will be 5,086 acres and 11,055 acres in Tiruchirappalli taluk and 3,637 acres and 844 acres in Tanjore taluk respectively.

In the first reach of the canal, there are as many as 60 cross drainage works consisting of canal syphons, syphon aqueducts, inlets, outlets, etc., besides 33 road bridges and 15-foot bridges. In the second reach, the canal crosses the Tiruchirappalli-Madurai and the Tiruchirappalli-Manamadurai Railway lines and also the Tiruchirappalli-Pudukottah Trunk road, and it is proposed to have bridges at the sites of these crossings. The following works are contemplated in this reach :—

- (1) Regulator at 15-1-260.
- (2) Railway bridge 2 Nos.
- (3) Road bridge at the site of crossing of the Tiruchirappalli-Pudukottah Trunk road.
- (4) Masonry aqueduct for carrying the drainages of Kattar river which crosses the new Canal. The Ventway for the stream will consist of 25 spans of 12 feet each.

Besides there are 34 cross masonry works and 12 road bridges in this reach :

The third section of the Canal which will Commence below the off-take of 20th distributory will have 29 cross masonry works besides 13 road bridges and one foot bridge.

The entire area under this Project is now mainly under dry cultivation, the crops raised being cholam, ragi, kambu, chillies, goundnut, etc., only in a part of this area comprising of about 8,723 acres, paddy is grown with the supply available from the tanks which are all rainfed ones. By the execution of this scheme, the entire area can be brought under wet cultivation besides giving assured supply to the existing ayacut under the tanks.

The total cost of the Project, including direct and indirect charges, is 156.65 lakhs and it is anticipated that there will be an additional yield of 7,468 tons of rice costing nearly 22.5 lakhs of rupees due to the execution of this Project which will also improve the living condition of the inhabitants of this area.

Irrigation Works at Rs. 8 lakhs in Kanyakumari

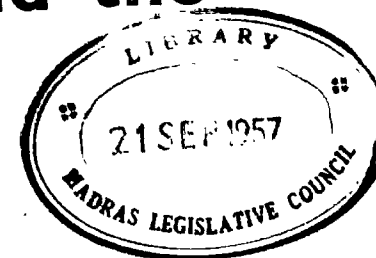
The Government have issued orders for the execution of 170 Special Minor Irrigation Works and de-silting-cum-reclamation of tanks in the Kanyakumari district at an estimated cost of Rs. 8 lakhs in 1957-58. This is part of the State's Special Minor Irrigation Programme, under which works which are capable of yielding quick additional food production are taken up for execution. These works are investigated by the Agriculture Department and executed through their own special staff and through the regular Public Works Department staff. The programme of work for the Kanyakumari district for the year 1957-58 will bring in an additional extent of 6,936 acres under the plough and the extra yield is expected to be of the order of 3,636 tons a year.

PRIMARY HEALTH CENTRES, 1957-58.

The Government have issued orders for the location of four of the 28 Primary Health Centres sanctioned to be opened during the year, at Mandakolathur, Mahendramangalam, Satyamangalam and Zamin Endathur in mangalam and Zamin Endathur in Chetput, Thottiam, Gingee and Madurantakam N. E. S. blocks, respectively.

Our Tax Structure and the Second Plan

By DR. P. S. LOKANATHAN



The Second Five-Year Plan is encountering rough weather. We all knew that if the high targets of the plan were to be fulfilled, more than normal efforts were needed to mobilise domestic resources, and good fortune in the securing of adequate foreign exchange resources.

But what we did not anticipate was that our food and agricultural production would fail to keep pace with population growth and increasing consumer demands rising from growing investments and larger money incomes. Nor did we anticipate that the whole world would be subject to inflationary pressures with the result that the costs of imports, of machinery and materials required for our development purposes would increase appreciably.

The Planning Commission did expect or should have expected that there would be a strain on our domestic and foreign exchange resources with the rising tempo of development, but neither the big spurt in food prices nor the heavy imports in the first 18 months of the plan which have brought us a near foreign exchange crisis were quite foreseen. We are in a period of real strain and difficulty. In some quarters, there is a cry that the plan targets should be drastically cut; others say the period of the plan should be extended to six or seven years.

Plan targets not over ambitious.

The Second Five-Year Plan represents a crucial stage in India's economic growth. It is by no means excessive or over ambitious goal as some Indians and many foreigners contend. Other countries in Asia have set even higher targets in their current development programmes as for example, Japan, China and the Philippines. Limiting ourselves only to a

consideration of the basic needs of our population, the programme is not too big.

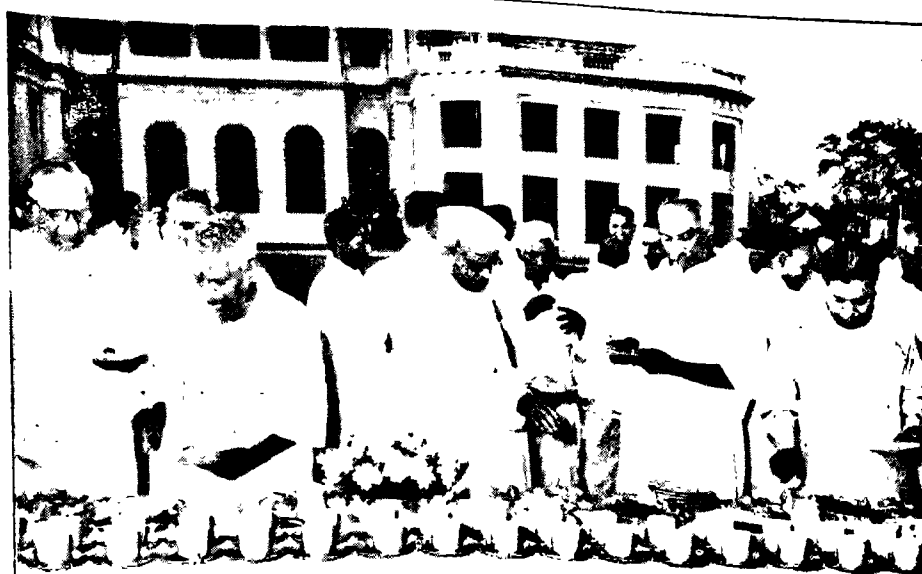
In the words of the Union Finance Minister: "To those who regard the plan as too ambitious, I would respectfully submit that they should take a good look at the living conditions of the bulk of our people. If they will, along with me, be able to see the several directions in which the Plan is inadequate. The housing conditions and environmental hygiene in urban and rural areas of the low income groups are deplorable; the slums in our cities are a disgrace to any society which claims to be considered civilised."

In terms of needs, therefore, the plan is fully justified. It is also justified in terms of the progress we

have made in several directions. In the first plan, the tempo of investment was very slow in the first three years, mainly because the technical, administrative and organisational arrangements did not quite match financial availabilities. Now the technical and administrative bottle-necks have been removed. Secondly, the success achieved and experience gained in the first plan have justified a much larger investment programme. Thirdly, unless an appreciable increase in the standards of living of the masses of the population was planned for, there would be a serious disappointment and discontent among the people.

People made their choice.

In adopting the Second Five-Year Plan, the country has made its choice. There is a danger that if, at the first touch of stress and strain, we should permit a substantial cut in the targets



A tea party was given to the members of the Madras Legislature by Governor Sri A. J. John at Rajbhavan in the last week of July at the conclusion of the Budget Session.



Sri K. Kamaraj, Chief Minister, addressed the first meeting of the State Industries Development Committee held at the Secretariat in the last week of July. Sri R. Venkataraman, Minister for Industries, presided.

or prolong the period of fulfilment unduly, India's sustained economic growth would become dubious. In the development of many countries, we can identify a period of time when the take-off in sustained growth can be said to have begun. We are now in the stage of Take-off in India's economic development; and if the country allows itself to become pusillanimous or weak-hearted, progress would be seriously arrested.

It is widely recognised that economic progress is largely a function of investment and capital formation. Countries have become prosperous to the extent to which they had built up their capital formation. Advanced industrial countries have reached their present position after having invested and continuing to invest year after year something like 10 to 12 per cent of their net national income on capital formation.

In the Second Five-Year Plan, we plan to invest about 10 per cent of our national income. This investment can be effective only if it is matched by savings in terms of real resources. A part of these resources must, however, come from outside; since our new and expanding industries depend to a considerable extent upon imported materials and machinery for their operations; because our normal exports do not yield the resources with which to buy the essential imports, the availability of foreign exchange is a severe limiting factor.

Speedily to augment the supply of foreign exchange and foreign capital is the most immediate problem. No matter what the Government's intentions are, the targets will have to be lowered and a rephrasing of the plan will become an absolute "must", unless more foreign exchange resources become available. Even to save the so-called hard core of the plan, that is to say, to ensure the fulfilment of our production goals in respect of steel, coal, transport, power, etc., much more external finance has to be secured.

Food remains the basic problem.

In so far as investment outlay depends solely upon domestic resources, however, it is our willingness to save that is the determining factor. Public investment including development outlays has grown from Rs. 260 crores in 1951-52 to Rs. 900 crores in 1957-58. Private investment has also increased

Strategic Sands of Kanyakumari

The beach sands at Colachel in Kanyakumari District contain rich minerals like Ilmenite, Monozite, etc. The then Travancore-Cochin Government set up a factory at Manavalakurichi to separate the ilmenite and monozite from the beach sands. Ilmenite is being exported to United Kingdom, Japan and other foreign countries. The monozite separated is being sent to Indian Rare Earths, Alwaye. From 1st November 1956 after the reorganization of States, the above concern was taken over by the Government of Madras and being run as departmental commercial concern. The capacity of the plant of the above concern is above 40 tons of ilmenite per day of two shifts. If the monozite alone is separated then the capacity would be about 70 tons per day of two shifts. Other minerals that can be separated from the beach sands are Garnet, Zircon and Rutile. Experiments in regard to the utilization of the richest mineral, viz., Rutile for being used in Aircrafts in place of Aluminium are being conducted in western countries and at present Rutile is not separated.

The monozite cannot be exported out of this country as this is an important mineral. Even for the export of ilmenite, certificate from the Atomic Energy Commission for the titanium oxide content in ilmenite and the monozite content is to be obtained before export is made. There are above 64 monthly paid workers and 130 daily paid casual workers working in the factory. After the Madras Government took over the concern in November 1956 a quantity of about 3,000 tons of ilmenite was sold to Messrs. Volkart Bros., Cochin, at a rate of 85 sh. 6 d. per ton N.A.W. and 21 sh. per ton F.A.S. Recently another order for 10,000 tons of ilmenite from Messrs. British Titan Products, Limited, York-England at the same rate was booked and the first consignment of 4,000 tons of ilmenite was loaded on the 28th of April 1957 and the second consignment of 4,000 tons will be loaded on the 10th of May 1957. The third consignment of 3,000 tons will be loaded on the 25th of May 1957.

Government of India have set up a private corporation known as Travancore Mineral Concerns (Private), Limited, and registered the same under the Companies Act on the 26th of October 1956, prior to reorganization of States. The object of setting up of this concern is to take over the mineral concerns run by the present Kerala Government and the Madras Government at Chavara and Manavalakurichi in the first instance and later on take over the private concern viz., Messrs. Hopkin and Williams Company at Chavara and at Manavalakurichi and run all these concerns for the separation of minerals from the beach sands of Kerala and Madras Governments. It has been decided that in the Board of Directors of the newly formed Company there will be three representatives of Government of India and three representatives of the present Kerala Government. As this Company was formed prior to 1st November 1956 no representative of Madras Government was included in the Board of Management. The Madras Government have informed the Atomic Energy Commission that they would participate in this concern and that Madras Government must have a share in the management. The Atomic Energy Commission's reply is awaited.

appreciably. But neither public savings nor private savings have increased at rates corresponding to rates of public and private investment. While private investment has been financed partly by private savings (both individual and corporate), a good portion has been financed by

bank credits and banks have not succeeded in attracting deposits from the public.

A not inconsiderable part of public investment has been made possible only by deficit financing. But it has serious limits. The failure of savings

All Must Save and Limit Consumption

to match with investment is at the root of the present strain on our resources. In addition, the resources themselves have not been increasing at the expected rate. As I said earlier, this is mainly true of food and agricultural production.

We were under the illusion that our food problem had been solved. That surely is not the case. Even if production increases, the food problem still remains the basic problem. The proportion that comes into the market for sale does not increase to the same extent.

In this context of a growing strain upon our economy, austerity and restraint of consumption has an urgency which is imperative. The only way by which savings can increase is by restraining private consumption and restricting all Government expenditure which is non-developmental. There is no room for unnecessary and unproductive private or public expenditure.

All must save and limit their consumption to the extent possible. The role of small savings in the fulfilment of the plan cannot be over-rated. The collection under small savings was smaller in 1956-57 than in 1955-56.

It was only 61 crores as against the target of 100 crores annually. To foster the savings habit and give further inducement to save, the recent budget has raised the rate of interest on small savings and provided different types of savings certificates including gift coupons. In addition to small savings, the need is apparent for savings on the part of the wealthier sections of the population by subscribing to public loans.

Taxation not excessive.

Even granting that the maximum saving effort is made, there is no doubt that much of the public saving for development expenditure must come from budget surpluses—in other words by the excess of tax resources over current expenditure. In all advanced industrial countries, taxation absorbs about 15 to 20 per cent of national income; in India it is still only about 8 per cent. The burden of taxation cannot be said to be excessive. It is against this background that one

must judge the tax proposals introduced in May last by the Finance Minister.

Their very bold and imaginative features have raised a storm of criticism; yet they are primarily designed both to meet present needs and to bring about a better and more satisfactory structure of taxation in the country. In spite of the previous increases in both direct and indirect taxes, and the introduction of estate duties and more recently a capital gains tax, the structure of our tax system had left something to be desired. It was not broad-based.

The number of persons, including companies, that are brought within the scope of income-taxation is surprisingly small—a matter of a few thousand in a population of 370 million. A lowering of exemption limits would increase considerably the number of assesseees.

Many large incomes have been altogether laid outside the scope of taxation and still are despite the new tax proposals. Despite the fact that more than a third of the national income arises from agriculture, our tax structure almost ignores that income. For a developing country, with its need to provide incentive to save and invest, the tax system has acted as a disincentive.

At high brackets of income, the tax imposed (including super-tax and surcharge) is almost expropriatory with the result that the tax has been accepted mainly because of the proved possibilities of evasion. As the Finance Minister has pointed out, these high rates tend to be applied to a corroded tax base. Taxes on companies have acted also as a deterrent to foreign investment.

Expenditure tax instead of income tax.

The system of taxation on income has to be supplemented by other taxes, if taxable capacity is to be more fully utilised. Further since high rates of income taxation act as a disincentive to saving and investment, a tax which would fall only on expenditure and not on income may be a useful supplement. In the present context of need for austerity all round and restraint on consumption, it is essential that the masses of the population

should bear a tax on their articles of consumption. In any event, no amount of direct taxation by itself would be adequate to give the Government all it needs.

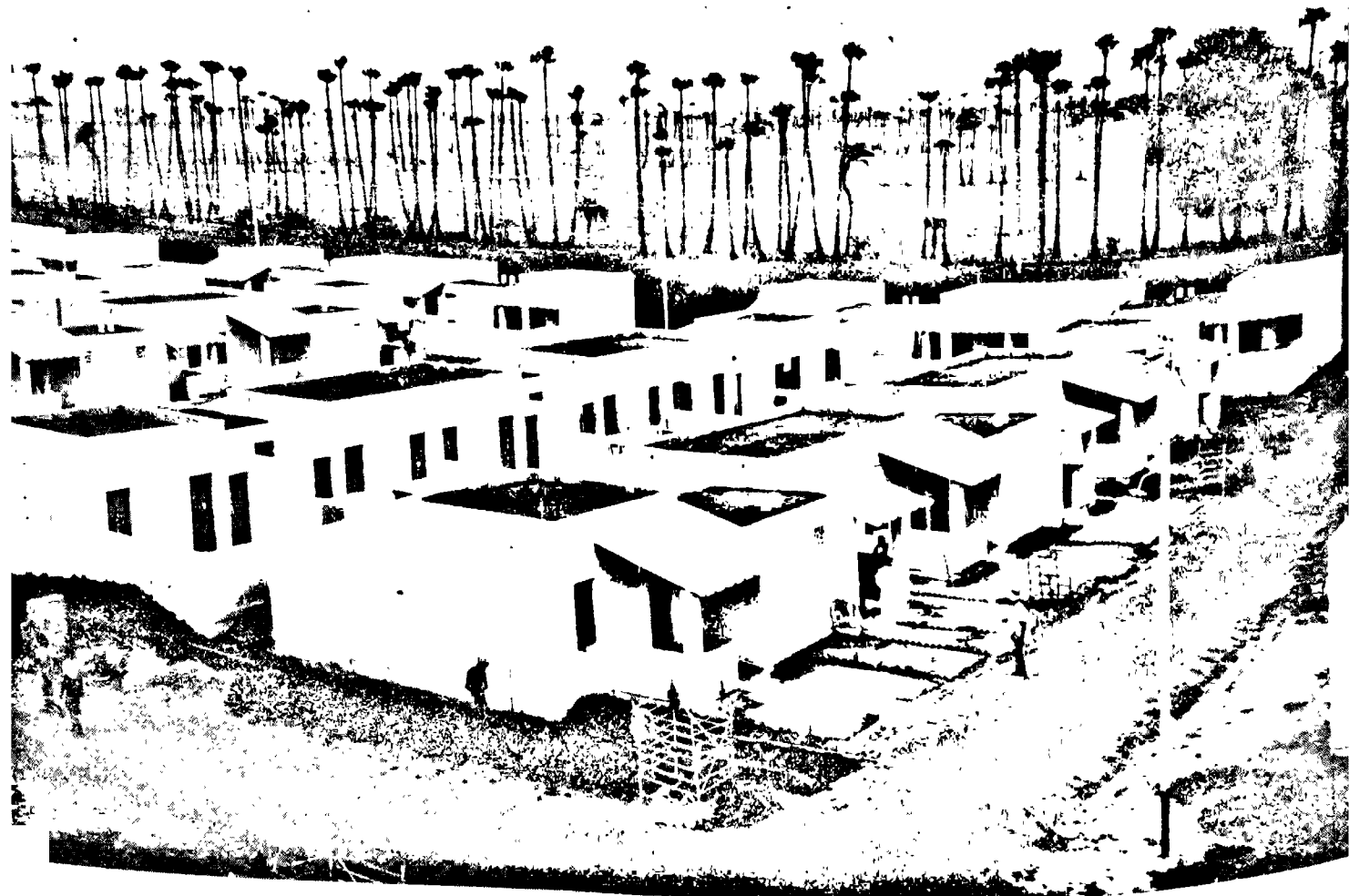
Let us review the tax measures in the light of what I have just said. The large increases in excise duties especially in respect of motor spirit, diesel oil, cement, steel, matches, tobacco, pepper and sugar, have undoubtedly a revenue aspect, but are prompted even more by the need to reduce the demand. The tax on railway fares and the additional charges on postal and telegraph rates cannot be said to be excessive. In any case, the need to reduce the pressure on available railway transport is a sufficient justification.

It is the two taxes on wealth and expenditure that have given rise to more serious (though by no means universal) criticism. Yet it is precisely these two taxes that have a more solid justification both from the short-term and long-term points of view. A wealth tax at a rate not too high can be both highly productive and conform to canons of justice and equality. But by excluding agricultural properties, it yields to the political pressures of the country. On the other hand, its application to companies cannot be defended. The expenditure tax is only on those persons whose incomes will be over Rs. 60,000.

In spite of exemptions and so on, its essential weakness is that it is an entirely new tax in the world and no other country in the world has ever imposed such a tax.

Modern budgets of countries with planned economies are so vastly different today that the budget secrecy which was an essential virtue in previous times is now a handicap. While the rates of taxes in any particular year must, of course, be a secret, a great deal more of public education is needed regarding the scope and magnitude of the sacrifices essential for the fulfilment of the Plan. The public should also have the assurance that the Government is striving its best to economise in all possible ways and that the sacrifices called for or imposed are not limited to any particular sections, but are to be borne by all.

(By courtesy, A.I.R.)



to encourage them to undertake construction of houses for the benefit of their workers. Under the Subsidized Industrial Housing Scheme sponsored by the Government of India, the State Governments and the statutory housing boards are granted 50 per cent of the approved ceiling cost of the land and building as loan and the remaining 50 per cent as subsidy. Similarly private employers are granted 37½ per cent as loan and 25 per cent as subsidy and the co-operative societies are granted 50 per cent of the cost as loan and 25 per cent as subsidy. Recently the Government of India have agreed to increase the extent of financial assistance to co-operative societies to 60 per cent loan and 30 per cent subsidy. Workers mainly covered by the Factories Act, 1948, are eligible to apply for these houses.

Housing Schemes by private employers.

Ten private employers have so far taken advantage of the scheme and they have been granted or promised financial assistance to the extent of Rs. 9,21,722 for construction of 552 houses to the industrial workers. The Government of India have made a provision of Rs. 55.10 lakhs for schemes for construction of houses for private industrial workers during the period of the Second Five-Year Plan. The State Government have decided to

utilize the provision under the plan for housing schemes to be undertaken departmentally on lands obtained from the employers free of cost. There has been a good response from the employers in the matter of donation of lands. So far as many as 47 employers have intimated their desire to donate lands to Government for this purpose, and it is a matter for gratification to note that the appeal made by the Chairman sometime ago in the State Labour Advisory Board has developed into a small Bhoodan movement. Lands readily in the possession of the managements and offered by them have been considered in the first instance for construction of houses. Lay-out plans and detailed proposals for the construction of 698 houses at a total estimated cost of Rs. 21,51,000 in the lands donated by the managements of (1) The Cauvery Spinning and Weaving Mills, Limited, Vellalur, (2) The Coronation Litho Works, Sivakasi, (3) The Saroja Mills, Limited, Singanallur and (4) The South India Match Company, Sivakasi, have recently been submitted to Government. Proposals for the construction of houses on the other lands offered by the employers including the scheme for the construction of 66 additional tenements at Madras in the land adjoining this colony are also under consideration.

(Continued on page 36)

'Thiru Vi. Ka. Nagar' for Industrial Labour Housing Colony under State's Enterprise

By SRI V. BALASUNDARAM, Commissioner for Labour.

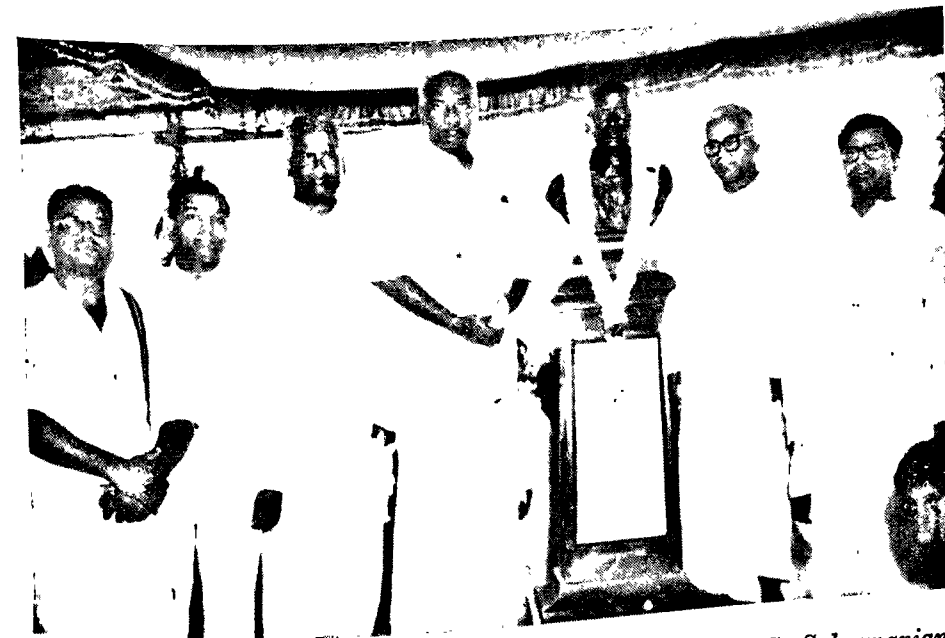
Labour occupies an important place in the life of a nation and no scheme for raising the standard of living can be successful without the active co-operation and help of labour. To keep labour contented and to enable them to put forth their best, it is necessary to ensure provision of adequate working and living conditions for them.

The provision of housing facilities is one of the many important welfare measures for industrial workers in which the State Government have been taking special interest since the advent of independence. Healthy housing conditions have far-reaching effects on community life, on levels of productivity and on the well-being of the general public. The housing problem has

assumed tremendous importance in recent years. The phenomenal increase of urban population has accentuated the gravity and vastness of the problem. Consequently it became necessary for the Government to prepare suitable schemes for the provision of housing for the benefit of industrial labour. As the resources of the State Governments were not sufficient to shoulder this responsibility exclusively by themselves, necessary financial assistance was offered to them by the Government of India as early as 1949 in the shape of loans and subsidies. This financial assistance was also offered to the housing boards, co-operative societies and private employees so as

'Thiru Vi. Ka. Nagar' was opened by Chief Minister Sri K. Kamaraj, on August 16, at a function attended by a large distinguished gathering including Sri M. Bhaktavatsalam, Minister for Home. Sri C. Subramaniam, Minister for Finance unveiled a bust size statue of Thiru V. Ka. on the occasion.

The Industrial Housing Colony built by the State Government with the assistance of the Centre has 486 houses, which are let to the labourers on a nominal rent of Rs. 10 per mensem.



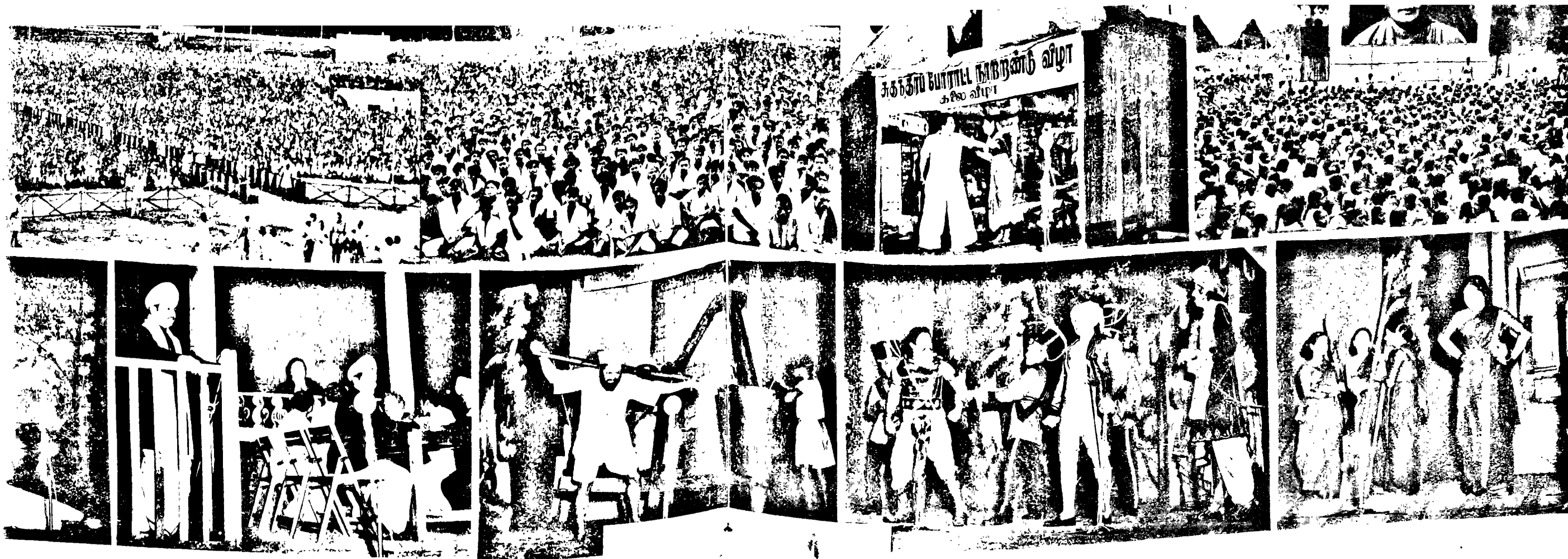
Chief Minister Sri K. Kamaraj, Sri M. Bhaktavatsalam, Sri C. Subramaniam, Sri P. Kakkaiyappan, Ministers, Sri V. Balasundaram, Commissioner for Labour and Sri K. Gurumurthy, who participated in the opening function of 'Thiru. Vi. Ka. Colony' at Sembium.



Thiru V. Kalyanasundaranar, was one of the worthy sons of India. He was a great patriot, versatile writer and a powerful orator. He was one of the pioneers of the Trade Union Movement in India and was one of the founders of Madras Labour Union, the first important Trade Union organized in India.

Popularly acclaimed as one of the three leaders who spread the patriotic fervour among the masses, he was known in his days for holding large gatherings spell bound for hours by his speeches. He was chiefly responsible for shaping the evolution of a popular Tamil shorn of classical obscurantism. The words he coined to express Modern thoughts greatly helped the flowering of Tamil as a language of the masses.

A life-long fighter for the rights of labour and for the social upliftment of women, Thiru. Vi. Ka. wrote many books expounding Gandhian and Valluvan philosophies to the people of Tamilnad.



PEOPLE CELEBRATE FREEDOM

of the First Freedom Struggle and the completion of First decade of India's Independence on an unprecedented scale. People in many thousands participated in the five-day cultural programme organised by the State Information and Publicity Department.

Variety entertainments by popular artistes at the Corporation Stadium, film shows at the Teynampet Congress Grounds and nathaswaram concerts by eminent vidwans at Triplicane witnessed by huge gatherings including a large number of women.

Festivals at the Congress Grounds where a giant screen was specially erected began with the "Independence Day" on August 15. Other outstanding films were also shown on all the five days.

The stadium included "Inbakkanavu" by M. G. Ramachandran and Party, "Naluvelli" by M. G. Ramachandran and Party and "Panchali Sabadam" and folk dances by Kalakshetra of the South Indian Artistes' Association presented a pageant of the Freedom Movement.



STRUGGLE CENTENARY

which included martyrdom of Tirupur Kumaran, services and sacrifices of V. O. Chidambaram Pillai, the heroic fight of the Panchalakurichi Chief, Kattabomman, Sivaji Ganesan, Musthafa, M. N. Rajam, G. Sakuntala portrayed the roles. A variety entertainment was presented by Director K. Subramaniam which included leading play-back singers like Gantasala and Sirkali Govindarajan. There was also a dance performance by Raja Sulochana and a farce by Y. G. P. and Party.

Nathaswaram performances by Thiruvengadu Subramania Pillai, Kullikarai Pichaiyappa, Karukurichi Arunachalam and Veeruswami Pillai, Mugaveena by Mysore Narayanappa and Clarinet by A. K. C. Natarajan, were a great attraction. A children's festival was also arranged at the Corporation Stadium.

Governor Sri A. J. John held a reception at Rajbhavan in connection with the Centenary and Independence Day Celebrations.



Madras in the Struggle for Independence

This is the second and concluding part of the article 'Madras in the Struggle for Independence.' Return of Gandhiji from South Africa, the foregoing of Civil Disobedience Movement by him to wrest freedom and the quick and spontaneous reaction of the people of the State in favour of the Movement are narrated in this article based on official records. Some of the incidents he quotes are still very green in our memory.

By Dr. B. S. BALIGA, Curator, Madras Record Office.

After having successfully carried on the campaign of passive resistance for improving the lot of Indians in South Africa, Gandhiji returned to India in 1915 and almost immediately started political propaganda. He took up the cause of the tenants of Bihar against the oppressions of the planters and organized passive resistance in the Kaira district of Bombay against the land revenue exactions of the Government. He then supported the extremist sections of the Indian National Congress and induced the Congress to join the Muslim League and the Muslim agitation against England and her allies when they endangered the suzerainty of the Khalifa, the Sultan of Turkey, and occupied the holy places of the Muslims in Asia Minor and Arabia. Nor was this all. He assailed the Government when they curtailed the liberty of the people by arming themselves by the Rowlatt Acts with powers of arrest and detention without trial of persons suspected of anti-Government activities, and condemned the Reforms of 1919 as being utterly inadequate to satisfy Indian aspirations. It is under these circumstances that he launched in February 1919 the Non-Co-operation and Khilafat agitation; and his sincerity, his spiritual insight and his political sagacity, made him at once a great leader, a "Mahatma", beloved and respected by both the Hindus and Muslims. This agitation

which is called the Satyagraha Campaign, or the Civil Disobedience Movement, stirred the hearts of millions all over India, and in pursuance of it, national leaders and political workers preached everywhere non-co-operation with the Government and passive resistance to the Government with unprecedented vigour.

Gandhiji in Madras.

In August 1920 Gandhiji himself came down on a propaganda tour to the south accompanied by the two notable Muslim leaders Sri Muhammad Ali and Sri Shaukat Ali and delivered a number of speeches in Madras City and in the districts. In these speeches he emphasized that civil disobedience signified the force of truth or the force of the soul, that its acceptance involved the rejection of all physical violence as well as the implementation of all policies laid down by the Congress such as the resignation of titles, the boycott of Legislative Councils and foreign goods, national education, temperance, labour unions, etc. He also emphasized that the Hindus and Muslims should unite together and fight for their common cause, Swaraj, for the redressal of Khilafat grievances, for the reparation of the Punjab atrocities and for the withdrawal of the Rowlatt Acts. Subsequently he came twice to Madras in 1921 to give a fillip to the movement.

It is not possible to describe here in any detail the results produced by the movement. All that can be said is that it resulted in many things of national significance. It resulted in hartals, processions and public meetings. It resulted in the resignation of titles and honours. It resulted in the boycott of schools, law courts, the Legislative Council and the local bodies. It resulted in the formation of labour unions and strikes. It resulted in the boycott of toddy shops and toddy shop sales and caused a considerable loss of revenue to the Government. It resulted in the encouragement of the Charka and the Khadi. It resulted in the formation of Youth Leagues and Congress organizations throughout the State. And, above all, it resulted in rousing a spirit of defiance against the authorities, and thus, in undermining in no small measure, the prestige of the Government. All these results were due to the ceaseless efforts of our political leaders like Sri Kasturiranga Ayyangar, Sri Srinivasa Ayyangar, Sri V. O. Chidambaram Pillai, Sri C. Vijayaraghavachariar, S. Satyamurthi, Kalyanasundara Mudaliar, Sri Singaravelu Chetty, Sri E. V. Ramaswami Naicker, Dr. P. Varadarajulu Naidu, Sri Yakub Husain and Sri C. Rajagopalachari. They were also due to the selfless devotion to the cause of patriotism shown by many of our political workers who went to jail in large numbers. They were likewise due to the persistent national propaganda carried on by the newspapers like *the Hindu*, *the Muhammadan*, *the Desabhaktan*, *the Tamil Nadu* and *the Swadesamitran*.

Montague-Chelmsford Reforms.

Meanwhile the awakening of the political consciousness of the country had led to the introduction of the Montague-Chelmsford Reforms of 1919. By the Morley-Minto Reforms of

21
"Gandhiji returned to India in 1915 and almost immediately started political propaganda . . . his sincerity, his spiritual insight and political sagacity made him at once a great leader, beloved and respected by both Hindus and Muslims."

1909 the Madras Legislative Council, which was then the Executive Council supplemented by additional members for making laws, had been enlarged, the number of its additional numbers having been raised from 20 to 42 of whom 19 were to be elected. The official majority in the Council had been surrendered and the members had been given the rights of moving resolutions on the budget as well as on matters of general public importance and of asking supplementary questions on reply to their interpellations. But nevertheless its resolutions had not been binding on the Executive Government, nor had it any control over any department of the Government. By the Montague-Chelmsford Reforms, the Legislative Council ceased to be the Executive Council supplemented by additional members appointed or elected for the purpose of making laws. It became a separate body of which the members of the Executive Council became ex-officio members. Its members, including the proportion of elected members, were also increased; there were to be now 98 elected members and not more than 30 nominated members of whom only 15 might be officials. The Governor no longer presided over it, though he had a right to address it. Its powers too were enlarged. It had the powers of discussing and voting the budget, of moving resolutions on matters of general public importance, of interpellation, of putting supplementary questions and of moving the adjournment of business to discuss a definite matter of urgent public importance. The constitution of the Executive Government was at the same time modified. A system of dyarchy was introduced. Provincial subjects were classified as "Reserved" or "Transferred" and while the former were administered by the Governor-in-Council, the latter were administered by the Governor acting with ministers appointed from, and responsible to, the Legislative Council.

Emergence of Justice Party.

When these reforms were on the anvil, a new party entered into the

political arena. This was the Non-Brahmin Party which came to be called the South Indian Liberal Federation or the *Justice Party*. It was by no means, as is sometimes supposed, a thoroughly reactionary party. It was not anti-nationalist in its outlook. It was only more moderate than the Congress Party and it sought to attain its goal of full responsible government through constitutional methods. It came into existence in this State towards the end of 1916 and gathered strength gradually during the Home Rule, the Non-Co-operation and the Khilafat Movements.

Its first pillars were Sri P. Theagaraya Chetty, President of the South Indian Chamber of Commerce, the oldest member of the Corporation of Madras, and an ex-member of the Legislative Council, and Dr. T. M. Nair, both of whom enjoyed the confidence of large sections of Non-Brahmins. In December 1916 Sri P. Theagaraya Chetty issued a manifesto attacking the Home Rule Movement in trenchant language, charging it with being a scheme devised by the Brahmins who were not content with having secured the practical monopoly of political power and high Government appointments, and calling upon all the Non-Brahmins to assert and press their claims against the domination of the Brahmins. The party thus ushered into this State was backed by a journal called *The Non-Brahmin* and, shortly afterwards, by a newspaper of its own called *The Justice* with Dr. T. M. Nair as editor and Sri Thegaraya Chetty as publisher. It lost no time in making propaganda. It held several public meetings in the City and the districts and urged that, in the coming reforms, communal representation by reforms, communal electorates as well as communal representation in public services, should be introduced. It also vehemently protested against the nomination of Sri V. S. Srinivasa Sastry on the Franchise Committee and urged, in his stead, the nomination of either Dr. T. M. Nair, or some other Non-Brahmin leader. Indeed, what gave the Justice Party its strength was the appeal which it made to the entire Non-Brahmin Community that the predominance of the

Brahmin leaders in the Home Rule and Congress movements and the over representation of the Brahmins in the services were matters demanding the serious notice of all Non-Brahmins. When the Reforms of 1919 were introduced, although they were not palatable to it, it accepted office and tried to work them. And during the Non-Co-operation and Khilafat agitations, it tried its best to counteract them, though in vain.

Amidst this agitation and counter-agitation, the Non-Co-operation and Khilafat movements suddenly came to an end. The Congress split over the question of Council entry and the Muslims beheld with dismay the abolition of the Khalifa by Kemal Pasha. But the agitation for swaraj, though abated, was continued, while Gandhiji took to constructive work, planning, as he said, to start the Civil Disobedience Movement at the proper opportunity.

During this time, till the advent of the Civil Disobedience Movement of 1930-31, interest in nationalism was kept up by the Congress in our State by continual propaganda. It was this propaganda that led to the launching of the no-tax campaign in Tanjore. It was this propaganda that led to the collection of Khadi purses and toddy shop picketing of toddy shops and toddy shop sales in various districts. It was this propaganda that led to several strikes in textile mills in the State. It was this propaganda that led to the boycott of the Simon Commission when it arrived in Madras. And finally, it was this propaganda that led to the general strike in the South Indian Railway (1928).

Lahore Congress Resolution.

Close upon this came the Civil Disobedience Movement forged by Gandhiji and introduced at the Lahore Session of the Congress in 1929. The resolution on this movement framed by Pandit Jawaharlal Nehru, the rising leader of India, and issued on behalf of the Congress Working Committee, charged the British Government with having not only deprived the Indian people of their freedom but also "ruined

The Civil Disobedience Movement forged by Gandhiji and introduced at the Lahore Session of the Congress in 1929 . . . shook the whole State of Madras . . . Its special features consisted of Salt Satyagraha, labour strikes, anti-drink campaigns, agitations in local bodies and even mass risings.

India economically, politically, culturally and spiritually" and declared in emphatic terms that "India must" therefore, "sever the British connection and attain purna swaraj or complete independence". The way to swaraj, it further declared, was not through violence but through civil disobedience, including non-payment of taxes. A manifesto like this issued to the numerous Congress organizations throughout India and a movement like this led by no less a leader than Gandhiji could not but be expected to produce widespread political agitation. A wave of nationalism, the like of which had never been witnessed before, spread over the whole of India and the Congress

Memorial to Tirupur Kumaran Stately Column Erected

In everlasting memory of the great martyr Tirupur Kumaran, who laid down his life twenty-five years ago in defending the honour of the tri-colour flag, a stately column was erected by the Government of Madras near Tirupur Railway Station.

The column which is twenty-five feet in height with a torch at the top, depicts the picture of a volunteer holding a tri-colour flag under which the people united to fight the foreigner by non-violent methods. The memorial column which cost rupees eight thousand is erected as part of the commemoration of the Centenary of India's First Struggle for Freedom.

Sri K. Kamaraj, Chief Minister, unveiled the memorial column on August 18 at a function presided over by Sri C. Subramaniam, Finance Minister.

leaders and Congress workers came out everywhere and did their utmost to paralyse the activities of the Government. The Government for the first time realised the national significance of the movement and introduced a series of repressive laws to meet the extraordinary situation.

Mass risings in Madras.

The movement indeed, shook the whole State of Madras. Its ordinary features here consisted, as before, of processions, mass meetings, hartals, singing of national songs and so forth in defiance of prohibitory orders. Its special features which alone can be indicated here consisted of salt satyagraha, labour strikes, anti-drink campaigns, agitations in local bodies, publicity in the press and, in some places, even mass risings in resentment at the repressive measures taken by the Government. Such risings took place at Arcot, Vellore, Gudiyatham and Sholingur in North Arcot and at Tindivanam in South Arcot. But for these violent out-bursts occasioned by violent repression, the movement was characterised throughout by a sullen, persistent, non-violent agitation. In almost all districts, as well as in the City, the nationalist press, notably the newspaper *Hindu*, despite the rigorous enforcement of the Press Ordinance, carried on subtle national propaganda with success. In almost all districts the local bodies supported the agitation and wished it success. In almost all districts spate cutting and picketing of toddy shops and toddy shop sales was conducted with great success. In almost all districts, including the City, labour strikes in mills and factories were organized with equal success. In almost all districts salt satyagraha was launched with even more success. And the greatest success in this satyagraha was achieved in Tanjore under the able guidance of Sri C. Rajagopalachari. As this was "the biggest organized effort" in support of the Civil Disobedience Movement in Tamil Nad, we may describe it in some detail.

Sri C. Rajagopalachari had by now come to the very fore-front in the politics in Madras. He had become Gandhiji's right hand man and risen to the position of the President of the Tamil Nad Congress Committee. He fixed Vedaranyam as the chief scene of operations for his salt satyagraha and the moment Gandhiji began his famous march to Dandi (12th March 1930) issued an appeal for funds and volunteers and toured through Tamil Nad addressing public meetings at various places to organize a march to Vedaranyam. The funds poured in and the volunteers flocked to his standard from all districts. He then sent an advanced guard to go along the route of the march from Tiruchirappalli to Vedaranyam, in order to arrange for accommodation and supplies at suitable halts and to rouse the sympathies of the people. In this and in all other work connected with the campaign he found able lieutenants in Dr. T. S. S. Rajan and Srimathi Lakshmipathi. As soon as the news of the campaign came to be known, the Tanjore district authorities became not a little perturbed especially since the Government had issued no instructions as to how to deal with the situation and had, on the other hand, ordered that Sri C. Rajagopalachari should not be arrested until he had actually broken the salt law. Mr. A. J. Thorne, the energetic District Magistrate, however, did all that he could to obstruct, if not to prevent, the march, by making it widely known that anybody who offered any assistance in the way of accommodation and supplies to the party would be prosecuted under section 157 of the Indian Penal Code. In spite of this however the march from Tiruchirappalli began on the scheduled date, 13th April 1930. When Sri C. Rajagopalachari with a picked party of 99 salt satyagrahis came to Koviladi, he found the famous local chattram barred and bolted against him, but he was not discomfited. He found some accommodation in a private house while the party made themselves comfortable on the river bed. This was the only place

"In the meantime the Government of India Act of 1935 was passed which gave a further instalment of reforms. So far as this State is concerned, it abolished dyarchy and with certain exceptions granted provincial autonomy."

where Mr. Thorne's tactics succeeded. Thereafter Sri C. Rajagopalachari and his party met welcome at Tiruvaivar, Tanjore and Kumbakonam and jubilant welcome from Kumbakonam onwards until they arrived at Vedaranyam on 28th March. The way in which this march was conducted extorted the admiration of Mr. Thorne. He reported that Sri C. Rajagopalachari maintained excellent discipline among his followers, exercised complete control over them and observed strict non-violence. He however arrested him as soon as he began to collect salt from the salt swamp. Other leaders like Sri K. Santanam, Sri Vedaratnam Pillai, Srimathi Lakshmipathi, Dr. T.S.S. Rajan, as well as a large number of volunteers at once came forward to carry on the campaign and gave a lot of trouble to the authorities; and it was only after several arrests that the situation could be brought under control.

Under all this agitation it is no wonder that the Government themselves recognized that the Civil Disobedience Movement reflected "real national spirit", that it had "more staying power than the Non-Co-operation Movement", that "it was better organized and definitely more prepared for a long struggle", that it no longer "derived its inspiration" from any personalities, not even Gandhiji's personality, that "it had an independent basis of its own" and a potentiality which made it clear that "the cult of Gandhiji" had merged in the cult of nationalism". Most of the present Congress leaders and political workers of this State took an active part in this movement and prepared the masses for further struggles for freedom that were to come in the near future.

Gandhiji visits Madras again.

Meanwhile, the Civil Disobedience Movement came to an end. By a settlement reached by Gandhiji on behalf of the Congress, with Lord Irwin the Viceroy, on behalf of the British

Government (March 1931), the Congress called off the movement and agreed to participate in the Round Table Conference held in England and the Government withdrew all repressive ordinances banning the Congress bodies, etc., and released all political prisoners. But this truce remained in force only for a time. The Civil Disobedience Movement was started again by the Congress early in January 1932 on account of the repressive ordinance passed by the Government to put down agitation in the North-West Frontier Province, in the United Provinces and in Bengal. The same weapons that were used before were used again throughout the State and when Gandhiji visited Madras and toured the districts early in 1934, huge crowds greeted him, venerated him, treated him "like a god" and contributed considerable sums to his Harijan Fund. A spirit of wrathful defiance against the authorities now filled the air, and the situation was not eased until the movement was finally called off by Gandhiji and the Congress in April-May 1934 and the Unlawful Associations Ordinances were cancelled by the Government.

Justice Party Politics.

During all this time from the end of the Non-Co-operation Movement to the end of the Civil Disobedience Movement, other parties in the State were not idle. The Justice Party, although it co-operated with the British in running the dyarchy under its leaders like the Raja of Panagal and Sri A. P. Patro, very soon began to lose all faith in dyarchy. It happened like this. In 1926 it was defeated in the General Elections by the Swaraj Party, the party of the Congress which believed in Council entry. But the Swaraj Party, though it had a majority, refused to form the Ministry, and, as a result, an independent Ministry under Dr. P. Subbarayan, having the support of the Swaraj Party, was formed. As soon as this Ministry was formed, the Justice Party started an agitation against it and against the British Government itself and attempted to undermine the

Congress. It convened a meeting of the Non-Brahman Federation at Coimbatore in July 1927 attended by its prominent leaders like the Raja of Panagal, Sri A. P. Patro, Sri R. K. Shanmugam Chetty, Sri A. Ramaswami Mudaliar, Sri C. Thanikachalam Chetty and presided over by Sri S. Kumaraswami Reddiar and at this meeting passed three important resolutions. The first of these permitted the individual members of the Justice Party to enter the Congress with the object of swamping the Congress and working on the feelings of the Non-Brahmans inside the Congress. The second condemned dyarchy as being a system utterly unworkable and demanded full provincial autonomy from the British Government. The third advocated a vote of no-confidence in the Legislature to unseat the Ministry. Soon after this meeting several prominent members of the Justice Party joined the Congress. A vote of no-confidence was also brought in the Legislative

A fitting memorial will be raised for Sri V.O. Chidambaram Pillai at Ottapidaram, the village of his birth in Tirunelveli district. V.O.C. popularly known as "Kappalottia Thamizhan" was one of the earliest to start the struggle for Freedom in Tamilnad. He was the first Indian to start a national shipping company in defiance of the "Powers that were".

He was a prosperous lawyer, but sacrificed his all in the cause of Freedom and suffered rigorous imprisonment, during which period he underwent such ordeals as pulling a chekku within the prison walls.

The ancestral home of V.O.C. at Ottapidaram was acquired by the Madras Government and the Foundation stone to erect a memorial was laid by Sri K. Kamaraj, Chief Minister, on August 7, 1957.

"In 1939 elections . . . no leader attracted a larger audience and none produced a greater impression than Pandit Nehru who arrived in Madras . . . started on a whirlwind tour of Tamilnad. Wherever he went he was given an enthusiastic reception. The villagers gathered and cheered him on his arrival . . ."

Council, but the motion was defeated by the members of the Swaraj Party. This did not upset the Justice Party, and at the General Elections of 1930, the Congress (both the Congress Party and the Swaraj Party) having refused to contest the elections, it easily obtained a majority and again formed a Ministry, this time headed by Sri B. Muniswami Naidu. This Ministry was succeeded in 1932 by the Ministry of the Raja of Bobbili. The Justice Party now felt itself quite safe and, finding from the elections that the Non-Brahmins had little to fear politically from the Brahmins, threw open its membership to the Brahmins so as to strengthen its organization. But its position actually was by no means safe. This was clearly shown by the General Elections of 1934. The Justice Party was now completely defeated by the Congress Party, the Congress having lifted the ban on Council entry. The Congress Party however did not accept office and accordingly a Justice Party Ministry was again formed under the Raja of Bobbili. But the sands of this party were running out fast. Thereafter dis-unity in its ranks, the lack of effective machinery and, above all, the want of a dynamic nationalist policy, ruined all its chances of success.

The Self-Respect and Communist Parties.

About the same time, two new parties, namely, the Self-Respect and the Communist parties, came into existence. Both opposed the Congress and both demanded radical social, economic and political reforms. The Self-Respect Party was started by Sri E. V. Ramaswami Naicker who had played indeed no inconspicuous part in Coimbatore during the Non-Co-operation and Khilafat agitation. After that agitation however he left the Congress believing that the only way to improve the condition of the people was to abolish all caste distinctions, to banish all religion and to introduce some sort of Communism. In 1933-34 he toured the Tamil Nad attacking all religions, Hinduism, Islam and Christianity alike,

denouncing the Brahmins for being the authors of caste distinctions, condemning all forms of private property and advocating the establishment of "the Russian form of Government" as being the best suited to the country. By his hatred of Brahmins he won the support of the Non-Brahmins and the Justice Party and by his love of the Soviet system he earned the sympathy of the Communist Party. Wherever he went he formed associations of Self-Respectors and his Self-Respect Party, because it promoted class hatred, caused some anxiety to the Government and, because it attacked the Congress, caused some annoyance to the Congress Party. It contributed a succession of intemperate articles in some Tamil newspapers, violently abused the Brahmins and the Congress and organized demonstrations, though with little success, even against Gandhiji when he came on the southern tour in 1934.

Banning of Communist Party.

But it was the Communist Party that caused real concern to the Congress and much anxiety to the Government. This party received a fillip by the visit of Sri Saklatwala, a prominent labour leader and a member of British Parliament, to Madras in 1927, and gave rise to several associations of workers. It refused to have anything to do with the Congress and denounced the Congress as "the stronghold of landlordism, capitalism and private ownership". The Congress found it impossible to conciliate the Communists (or "Socialists" as they called themselves) who organized a spate of strikes in the city as well as in the districts. Indeed, they grew from strength to strength in all parts of India. That was the reason why in July 1934, the Government of India banned the Communist Party and its organizations on the ground that they constituted a danger to public peace. The Government of India stated that a close investigation of all Communist activities, and especially the Meerut Conspiracy case, had revealed to them that

the Party aimed at nothing less than the violent overthrow of the existing order of society. Its aims, they said, were hatred of God and all forms of religion, the destruction of private property, the enforcement of absolute social and racial equality, the annihilation of all forms of responsible Government including civil liberties such as freedom of speech and trial by jury, and the establishment of the dictatorship of the proletariat by means of a world revolution. Its objects, they observed, were the achievement of complete independence of India by the violent overthrow of British rule, the cancellation of all national debts, the establishment of a Soviet Government, the abolition of the Indian States, the confiscation without compensation of all the lands, forests and other properties of the ruling princes, landlords, etc. And it sought to secure these objects, they remarked, by developing a general strike of workers culminating in a general political strike, and by developing a peasant movement for the non-payment of rents and taxes into an All-India agrarian revolution, and by organizing a nation-wide movement for political independence by attaching to it all the workers, peasants and petty bourgeois and by spreading revolutionary propaganda in the army and the police and inciting them to revolt against British rule.

As a result of this, in Madras, the Government declared unlawful the Young Workers' League (November 1934) which had for its avowed object the overthrow of British Imperialism and which was in no sense a bona fide trade union and was in touch with the Communist International. All this created a storm of protests in the left wing press and a great deal of uneasiness in the Self-Respect Party, which had, as has been seen, imbibed some of the Communist ideas. Sri E. V. Ramaswami Naicker lost no time in announcing that his party was not a Communist Party, that it was only a Socialist Party, that it worked always within the bounds of law, that violence had no place in it and that its aim was the

The Quit India Movement was launched . . . In Madras City, even in the face of strong military forces hartals and strikes frequently took place and acts of incendiarism were attempted . . . in the districts the situation often became worse.

establishment of the British System of administration and failing that alone "a Communist System of administration". His party however was not banned, nor were the other Socialist organizations in the State banned, although some of them, like the All-India Congress Socialist Organization, agitated for complete independence, non-compromise with British Imperialism, the elimination of the princes, landlords and other classes of exploiters and the redistribution of lands to the peasants. The banning of the Communist Party did not by any means put a stop to the activities of the Communists in the State. They formed what was called the Labour Protection League and steadily spread Communist ideas among the workers as well as the kisans. As yet however they did not start any widespread agitation. They started that only after the Congress Government came to power in 1937.

1935 Government of India Act.

In the meantime the Government of India Act of 1935 was passed which gave a further instalment of reforms. So far as this State is concerned, it abolished dyarchy and, with certain exceptions, granted provincial autonomy. The State Government was given exclusive authority over provincial subjects and concurrent jurisdiction over certain other subjects. The Government of India was precluded from interfering in State administration save when the Governor-General proclaimed an emergency or considered interference necessary for ensuring the peace and tranquillity of India. The Governor, like the Governor-General, was also entrusted with certain discretionary powers and special responsibilities which he could discharge without consulting the Ministers. Thus under his discretionary powers, he could nominate certain members to the Legislative Council, appoint and dismiss Ministers and members of the Public Service Commission, summon, prorogue or dissolve the Legislature, stop the proceedings of a Bill which affected peace and tranquillity, return a Bill to the Legislature for reconsideration with suggestions for amendment,

veto a Bill or reserve it for the consideration of the Governor-General, pass an Act or promulgate an Ordinance when immediate action was necessary or assume to himself all the powers of the State Government and the Legislature in the event of a breakdown of the Constitution. Under his special responsibilities, he was authorized to prevent any grave menace to public peace to safeguard the legitimate interests of the minorities and the public servants, to administer the partially excluded areas, to protect the rights of the rulers of Indian States and to execute the orders or directions issued to him by the Governor-General. Subject to these restrictions, the Ministers were invested with full powers over all other subjects relating to State administration. The Governor was to appoint the leader of the party or the parties commanding a majority in the Legislature as the Chief Minister and also the other Ministers chosen by the Chief Minister generally from among the members of the Legislature. If a Minister chosen was not a member of the Legislature he had to become one within six months or resign. All the Ministers were to be responsible to the Legislature and were to resign if the Legislature passed a vote of no-confidence. The Governor was to preside over the Council of Ministers. The side over the Council of Ministers. The Legislature was to consist of a Legislative Council and a Legislative Assembly. The Council was to consist of 45 members of whom a certain proportion was to be elected and a certain portion was to be nominated by the Governor. It was to be a permanent body, one-third of whose members were to retire every three years. The Assembly was to consist of 215 members elected by voters arranged in separate electorates. It was to sit for five years unless sooner dissolved by the Governor. The Council was to have no power to vote on demands for grants or to sanction expenditure; it could only discuss the budget. Such powers were to be exercised by the Legislative Assembly in which all money Bills were to be first introduced. In case of difference of opinion

between the two Houses, the Governor was to summon a joint sitting to decide the disputed measure.

Elections under 1935 Act.

This Act came into force on 1st April 1937, but long before that date strenuous efforts were made both by the Congress and the Justice Parties throughout the State to increase their strength and to carry on an effective propaganda for the forthcoming elections. On the Congress Party's side, the propaganda was carried on by local leaders like Sri S. Satyamurthy and Sri C. Rajagopalachari and outside leaders like Sri Vallabhai Patel and Pandit Jawaharlal Nehru. In this election campaign, no leader attracted a larger audience and none produced a greater impression than Pandit Jawaharlal Nehru, who arrived in Madras on 5th October 1936 and immediately afterwards started on a whirlwind tour of the Tamil Nad. Wherever he went, he was given an enthusiastic reception. In almost every village on his route, the villagers gathered and cheered him on his arrival; in more important villages, welcome arches were erected, festoons were hung and Congress slogans were displayed. He was received with flowers, fruits and music and, sometimes, with "vedis" fired in his honour. In towns in which he halted, very large crowds assembled, consisting of both townsmen and villagers of the surrounding areas. They minded not any inconvenience; they waited for hours to have his "darsan"; and they brushed aside the feeble hostile demonstrations carried on in some places by the members of the Self-Respect Party. They presented him addresses of welcome and purses and thanked him for his campaign against poverty and unemployment. Indeed, he literally achieved mass contact and became exceedingly popular by frequently stopping his car while passing through the villages, by talking freely with all who came to see him, by mixing freely with them, by showing extreme solicitude for their welfare and, by distributing the flowers and fruits presented to him, to the women

In the Nilgiris, mostly processions, demonstrations and students' strikes were organized.

Police shoot to kill.

In Ramanathapuram, serious disturbances took place at Rajapalayam, Karaikudi, Devakottai, Tiruvadanai and Poolankuruchi and a large number of persons were killed in police firing. There were here also many cases of arson and incendiarism. The civil court building at Devakottai was burnt, the Sub-Treasury, the Sub-Registrar's Office, the Deputy Tahsildar's Office and some other Government buildings at Tiruvadanai were set on fire, and attacked and destroyed; the Natarajapuram railway station and the Municipal Elementary School at Karaikudi were also burnt; the post office at Poolankuruchi was burgled, and a mail bus was waylaid and the mail bags in it were reduced to ashes. Interference with the telegraph, telephone and the railway were here very common; so also were very common the defiance of authority and the intimidation of officials. No less than Rs. 2,93,428 were levied here as collective fines on villages, and the Ramanathapuram District Board and the Virudhunagar Municipal Council were superseded for six months for passing Quit India resolutions. In Salem, on the other hand, the movement, on the whole was peaceful, but, at times, some acts of violence were committed. The village chavadi at Papparapatti was burnt, post boxes were removed, the telephone and the telegraph were dislocated and in some places, fish plates were removed from the railway line. In Tanjore, non-violent as well as violent measures were equally employed. Meetings were held, hartals were observed, anti-government propaganda was carried on and students' demonstrations were organized. But in some places like Tiruvaiyar, Tanjore, Mannargudi and Kumbakonam people showed violence. At Tiruvaiyar, hundreds of people marched through the bazaar forcing the shop-keepers to close their shops, preventing students from attending schools, cutting telegraph and telephone wires, blocking up roads with stones, stopping buses and attacking public offices. At Tanjore, a public meeting held in defiance of prohibitory orders ended in lathi charges and several arrests. At Mannargudi about 1,000 people armed with sticks, knives and swords cut telephone and telegraph wires, set

fire to the railway station, stopped buses from plying, and burnt two public offices. At Kumbakonam, about 10,000 people gathered at Gandhi Park, defied the prohibitory order, cut off telegraph communications, barricaded the streets, surrounded the police and the District Magistrate and became threatening until at last they were fired upon and dispersed by lathi charges. At Nachiarkoil an attempt was made to blow up a bridge and at Tiruturaipundi an attempt was made to derail a train. Mannargudi and Tiruvaiyar were fined collectively Rs. 38,718 and Rs. 1,903 respectively. In Tirunelveli, the students' strikes that first began soon gave place to grave disturbances. The Salt Factory at Kulasekharapatnam was attacked by a large crowd carrying sticks, aruvals and battle axes and, in the struggle that ensued, the Assistant Salt Inspector was killed. At Kadalai, a police party was attacked, at Kurumbur the railway station was set on fire, at Kadalgudi a police station was burnt, at Tuticorin some toddy shops were damaged, and near Sermadevi fish plates were removed from the railway line. Extensive damage was done here to telegraph and telephone communications. The Tirunelveli District Board and the Tirunelveli Municipality were suspended for a period of six months, for condemning the actions of the Government. In Tiruchirappalli, the students played an active part; they picketed schools and colleges, as well as courts, held meetings and organized hartals. Attempts were however made here also to tamper with communications. A passenger train was derailed between Pugalur and Noyyal railway stations, a goods train was derailed near Tiruchirappalli and fish plates were removed from the railway line between Lalgudi and Valadi stations.

The Quit India Movement remained active in Madras only for a few months, roughly from August to December 1942; thereafter it gradually died down. The political atmosphere in the whole country however continued to remain dark and sullen, what with the detention of the Congress leaders in jail and the unhelpful attitude shown by the Viceroys, Lord Linlithgow and Lord Wavell, and Sri M. A. Jinnah, the implacable leader of the Muslim League. The Viceroys insisted on the solution of the communal and minority problems as a preliminary to the consideration of

the grant of any reforms, while Sri M. A. Jinnah insisted on Pakistan. Gandhiji having been released in May 1944, tried his best to solve the tangle, but in vain. From 1945, however, the sky began to clear. The formation of the Labour Government in Britain, the end of the Japanese War, Lord Wavell's visit to England for consultation with the Labour Government, the arrival first of the Parliamentary Delegation and then of the Cabinet Mission to hammer out a new Constitution for India, all these, led to a succession of political changes. Then it was that the ban on the Congress was lifted, the Congress leaders were released and they resolved to accept the reforms offered in good faith by the British. This speedily led to the holding of general elections and the formation of the Interim Government at the Centre (consisting of leaders drawn from major political parties) and the Congress Government in Madras.

Attitude of other Parties.

During this whole period, from 1939 to 1946, when the Congress Party was fighting for freedom, the other parties in this State co-operated with the British Government and tried to strengthen their own position. Sri E. V. Ramaswami Naicker, now the recognized leader of the Justice Party, offered "unconditional support of Tamilians in the prosecution of the war as a counterblast to the Congress attitude." He also courted the Muslim League, supported the scheme for Pakistan, inveighed against the Congress and continued to stir up anti-Brahman feelings in the Tamil Nad. His violent anti-Brahman attitude, however, sometimes annoyed the Government. For, he threatened to start another agitation for the removal of caste and social distinctions in temples, restaurants, railway refreshment rooms, etc. Nor was this all. He convened a Justice Party Conference at Kancheepuram for urging the establishment of Dravidanad and at this conference unveiled a map of Dravidanad "comprising the areas where Tamil, Telugu, Kannada and Malayalam were spoken." But fortunately for the Government, his position in the Justice Party was soon challenged when he and his followers, among whom the most prominent was Sri C. N. Annadurai, began to insist on changing the name of the Justice

"The dawn of freedom was greeted in Madras with great rejoirings. Everywhere there was jubilation that the cherished goal had at last been reached and satisfaction that the British were departing as friends leaving no bitterness behind."

Party into the "Dravidian Association" or the Dravida Kazhagam and calling upon all title holders to surrender their titles. The orthodox Justices now promptly assailed him, repudiated his leadership and met and elected first Sri B. Ramachandra Reddy and then Sri P. T. Rajan as their leader. But he was not discomfited; he continued to canvass support for the Dravida Kazhagam, holding meetings in Tamil Nad.

Communists support War efforts.

During the same period, the Communist Party under its leaders like Sri Mohan Kumaramangalam, Sri P. Ramamoorthy, Sri M. R. Venkataraman and Sri Anandan Nambiar, cast its net wider and tried its best to secure a more permanent hold over the workers and the kisans. It found the time and circumstances eminently propitious for its propaganda. In July 1942 the ban on the Communists was removed and in August 1942, as we have seen, the ban on the Congress was imposed. This gave the Communists a free field to carry on their activities, and their activities bore abundant fruit amidst the economic distress caused by the war, amidst the rise in prices and the scarcity of foodstuffs. The ban on the Communists was removed by the British Government in the hope that they would fully co-operate with the war effort since Russia, the home of Communism, had, by then, become a firm ally of Britain. In this hope the Government were not disappointed. The Communists rendered wholehearted support to the British in their war effort. Thus, at a meeting held in July 1942 by the Madras and Southern Mahratta Railway Employees' Union, Perambur, Sri Mohan Kumaramangalam said that, though the attitude of Britain towards Communism had until recently been hostile, it was now the duty of Indians to co-operate actively in the war; that, if Japan conquered India, it was not British Imperialism but Indians that would suffer most, and that, therefore, the people should join the army in large numbers. This co-operation in war effort however did not prevent the

Communists from strengthening their hold upon the workers and others. They carried on extensive under-ground propaganda and tried to seduce the students, the mill and factory workers, as well as the kisans, from the Congress into the Communist fold. They formed "students' cells", "matha sangams", and workers and kisans unions. They instigated the workers to make all sorts of demands and organized a series of strikes in mills and factories throughout the State. They instigated the kisans also in some districts to make unreasonable demands and to stop all kinds of cultivation work, if their demands were not complied with by the landholders. In their struggle for getting control over the workers and kisans they often came into violent clashes with the Congressmen. All this compelled the Congress in 1945 to expel them from the Congress Party. The Congress Party in Madras now attempted to recover its lost ground and to consolidate its position by forming associations called "Samithis" for dealing with problems connected with the workers, kisans, students, food, etc., and by making intensive propaganda in all districts. But the Communists put up a stiff fight everywhere.

Sri Kamaraj's leadership.

Then came the general elections and Sri C. Rajagopalachari having, as we have already seen, left the Congress on account of his differences with the Congressmen over the Pakistan issue, the leadership in Tamil Nad passed into the hands of Sri Kamaraj Nadar, the President of the Tamil Nad Congress Committee. There is plenty of evidence to show that he wielded at this time the most powerful influence in Tamil Nad. He inaugurated a National Youth Federation in Madras for co-ordinating the activities of all youth organizations with the object of carrying on the constructive programme of the Congress. And, as soon as the Congress High Command decided to contest the elections, he and his followers conducted strenuous tours throughout Tamil Nad, addressing numerous meetings, explaining the Quit

India Resolution and creating enthusiasm everywhere for the Congress. The opposition parties now more or less disappeared from the field, save the Communist Party. During the election campaign the Communists kept the labour situation tense and restless both in the City and in the districts.

Sri Prakasam's Ministry.

The elections held in March 1946, brought an astounding success to the Congress. The Congress Party obtained an overwhelming majority, securing 164 seats out of the 215 seats in the Legislative Assembly and 32 seats out of the 52 seats in the Legislative Council. Sri T. Prakasam was now chosen as the leader of the Parliamentary Party and he formed his Ministry in April 1946. His Ministry, however, had no easy task before it. For, the whole country was then passing through severe ordeals. The times were out of joint. In the economic sphere, the after-effects of war, high prices, hoarding and blackmarketing were causing unusually hard times for the poor. In the political sphere, the agitation for Pakistan and communal squabbles were creating menacing movements like the Rashtriya Seva Sangh (the R.S.S.) directed against the Muslims, the Razakars directed against the Hindus and the Dravida Kazhagam directed against the Brahmans. In both the spheres, the Communists taking advantage of the troubled times were becoming a real danger to the country. All over India they were organizing industrial and agrarian strikes, making anti-Congress speeches, disseminating inflammatory literature, terrorising their opponents and inciting the people to all sorts of violence. The economic distress produced by the war and the communal agitation created by the Dravida Kazhagam were more or less without much difficulty handled in Madras by the Congress Government. But it was not without great difficulty that they could tackle the political agitation created by the Communists.

The Communists vowed to discredit the Congress in Madras, to capture labour and to keep up a sustained

agitation against the Government, even before the results of general elections were announced. And, soon after Sri T. Prakasam formed his Ministry, they demanded nationalization of all industries, opened a "Parliamentary office" in Madras to collect statistics about the grievances of the workers and organized a general strike in the South Indian Railway. When this strike was scotched and killed, they openly accused the Government of being capitalistic, tried to capture labour in all fields, formed more and more labour unions in the City as well as in the districts, set up village food committees, came into frequent violent clashes with the Congressmen, fomented a large number of strikes in mills, factories, dock-yards and essential services and, what is more, incited agricultural labourers against the landholders, making it thereby difficult for the authorities to maintain law and order over large and dispersed areas. The anarchy let loose by the Communists compelled

the Government to take stringent measures to preserve public peace and safeguard public interests. Early in 1947 they issued the Madras Maintenance of Public Order Ordinance (Ordinance I of 1947) and followed it up by the Maintenance of Public Order Act (Act I of 1947). In this Act, in order to deal with subversive activities, they provided for preventive detention, imposition of collective fines and censorship, control of meetings, processions, camps, drills and parades, requisitioning of property and control of essential services. Under this Act they detained a number of active Communist agitators, but they did not show to them any undue harshness. Their action in most cases of detention was upheld by the advisory boards set up to review such cases. And yet they released all such detenus as gave an undertaking not to take part in subversive activities: they granted allowances to the families of many of the detenus and also released on parole a good number of detenus to attend on

their sick relations, to perform obligatory ceremonies and so on.

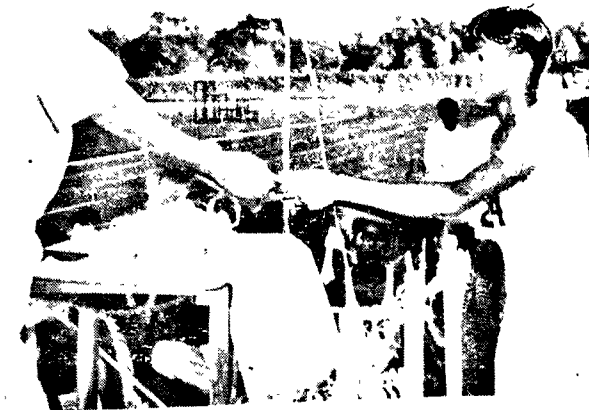
All this time, in the All-India sphere momentous events were in the making. The prolonged parleys between the Congress leaders on the one hand and Sri M. A. Jinnah and the British Government on the other, at last led to the convening of the Constituent Assembly the decision of the British to withdraw from India, the arrival of the new Viceroy, Lord Mountbatten, the partition of India into India and Pakistan and finally, the declaration of Independence (July 1947 with effect from 15th August 1947).

The dawn of freedom was greeted in Madras with great rejoicings. Everywhere there was jubilation that the cherished goal had at last been reached, and satisfaction that the British were departing as friends leaving no bitterness behind. The Independence Day was celebrated with not a little enthusiasm alike in the City and in the districts.

SPORTS CELEBRATIONS IN CITY



Sports in schools and colleges were organised throughout Madras State in connection with the Centenary Celebrations of the First Freedom Struggle, and the finals for both boys and girls were held at Rajarathinam Stadium and Presidency College Grounds, respectively, in the second week of August 1957.



Sri K. Kamaraj, Chief Minister, presided over the sports for boys and distributed prizes.

Srimathi Cheriai distributed prizes to girl athletes. The girl students, besides showing keen interest in sports, made the occasion livelier by taking part in fancy dress competition.



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Neill's Role in 'Rule Britannia'

This is the second and concluding part of the story of a man who was chiefly responsible for the failure of the First War of Independence a hundred years ago. The account shows how this man Neill by his courage bordering upon madness and inhuman ways won victory over victory before he fell to a bullet shot.

By Dr. A. AIYAPPAN, Superintendent, Government Museum, Madras.

James George Smith Neill (1810-1857), Colonel and Brigadier-General, eldest son of Colonel Neill of Burnwell and Sweendridge Muir, Ayrshire, was born in the neighbourhood of Ayr on 27th May 1810. He was educated at Ayr and at Glasgow University. He obtained an army cadetship in the East India Company's service, and arrived at Madras on 1st June 1827. Sir Thomas Munro, Governor of Madras Presidency, who had married a relative of Neill, took kindly notice of the boy, and he was posted on 5th June, with date as ensign of 5th December 1826, to the Madras first European regiment then quartered at Machlipatam. He was promoted lieutenant on 7th November 1828. He was appointed Fort Adjutant at Machlipatam on 15th September 1829, and held the office until the regiment marched to Kampti. On 1st May 1831 he was made quartermaster and interpreter to the right wing of his regiment at Kampti. On 7th March 1834 he was nominated Adjutant of his regiment, and was afterwards selected to command the escort of the Resident of Nagpur.

On 1st January 1837 he left Kolkoda on sick furlough to Europe. He returned to Madras on 25th July 1839, before the expiration of his furlough, in the hope of being employed in the operations in Afghanistan; but in this he was disappointed.

On 23rd March 1841 he was appointed to the general staff as Deputy Assistant Adjutant-General in the ceded districts. While holding this appointment he wrote a short account of the history of his regiment, which was published in 1843 under the title of 'Historical

Record of the Madras European Regiment'. On 5th January 1842 he was promoted Brevet Captain, and on 25th June he was made Aide-de-Camp to Major-General Woulfe. Neill was promoted Captain (regimental) on 2nd January 1843 and Major on 25th March 1850.

When the second Burmese War broke out in 1852, Neill threw up his staff appointment and hastened to rejoin his regiment, which had been ordered to the seat of war. On his way he was met by the announcement that he had been appointed to the staff of Sir Scudemore Steele, commanding the Madras troops in Burmah, as Deputy Assistant Adjutant-General. He did admirable work all through the campaign. On the conclusion of the war he was left at Rangoon in command of the Madras troops, and was actively employed under Sir John Cheape (q.v.) in suppressing insurrections near Thurygyeen, Bassein and elsewhere. Constant exposure and hard work in a bad climate brought on fever which nearly proved fatal; but he recovered and was sent to England arriving in June 1854. For his services in the Burmah War he was promoted Brevet Lieutenant-Colonel on 9th December 1853.

Neill goes to Turkey.

When the war with Russia commenced, General (afterwards) Sir Robert Vivian, who had been Adjutant-General of the Madras army, was selected to command the Anglo-Turkish force, called the Turkish contingent, and Neill was appointed his second in command. He was given the rank of Colonel on staff, and went to Constantinople in April 1855. On his arrival

he was appointed to command a division stationed in camp at Buyukdere, on the Bosphorus, where he remained till July, bringing the force under his command into a state of efficiency and discipline. Owing to the excess of the Bashi-Bazouks, commanded by General Beatson, a military commission composed partly of British officers and partly of Turkish officials, was appointed, with Neill as President to inquire into the outrages. The commission was opened on 27th July at the embassy and full powers were given to it to try and to punish the offenders. Severe and immediate punishment for plunder was administered and soon produced good effects, while Neill reported that the excesses committed were due to lax discipline, and indicated what steps should be taken to amend it. Neill received the thanks of Lord Stratford de Redcliffe, the Ambassador, who directed General Beatson either to adopt Neill's recommendations or adhere to the resolution he had announced of resigning his command.

Back in Madras as Colonel.

Neill displayed considerable ability in organizing and reforming the Turkish contingent. He was determined to have no officers that were not fit for the work, and got rid of no less than twelve officers, including a Brigadier-General, three Lieutenant-Colonels and three Majors. On the conclusion of the war Neill returned home, and after spending the remainder of his leave with his family, sailed for India again on 20th February 1857, arriving in Madras on 29th March. His regiment was away in the Persian Gulf, forming part of the expedition under Sir James Outram. He was preparing to start for Bushire to join it when on 6th April intelligence arrived that the war with Persia was over and on 20th April the Madras Fusiliers reached Madras. Colonel Stevenson, who was in command, left for England on sick leave on the 28th and Neill took over command of the regiment.

North India in a blaze.

On 16th May news came from Calcutta that the troops at Meerut and Delhi had mutinied, and Northern India was in a blaze. Neill embarked his regiment at once, fully equipped for service, in accordance with instructions received and arrived at Calcutta on 23rd May.

Neill arrived at Banaras on 3rd June 1857. The following day the 37th native infantry and a Sikh regiment mutinied. They were attacked and dispersed by the artillery, some of the 10th Foot and of the Madras fusiliers. Thrice the rebels charged the guns, and thrice were driven back with grape shot; then they wavered and fled. Never was rout so complete; Brigadier-General Ponsonby, who was in command, was incapacitated by sun-stroke, and Neill assumed the command. He was duly confirmed in the appointment as Brigadier-General to command the Haidarabad contingent. His attention was at once called to Allahabad, where the 6th native infantry mutinied on 5th June and massacred their officers. The fort still remained in our (English) hands, but was threatened from without by the mutineers who were preparing to invest the place, while the fidelity of the Sikh troops within was doubtful. Neill at once despatched fifty men of the Madras fusiliers to Allahabad by forced marches. They arrived the following day (6th), and found the bridge in the hands of the enemy, but got in by a steamer sent from the fort for them. Another detachment sent by Neill arrived on the 9th and on the 11th Neill himself, having made over the command at Banaras to Colonel Gordon, appeared with a further reinforcement of forty men. Neill experienced considerable difficulty in getting into Allahabad. He was nearly cut off en route from Banaras and when he got near Allahabad it was blazing forenoon. A boat was obtained by stealing it from the rebels and Neill and his men had to wade a mile through burning sand in the hot sun. Two of his men died in the boat of sun-stroke. Neill's energetic measures soon altered the position of affairs. The heat was terrific, but Neill on 12th June recovered the bridge and secured a safe passage for another detachment of a hundred men of the fusiliers from Banaras. On the 13th he opened fire on the enemy in the adjacent villages, and on the 14th, a further detachment of fusiliers having

arrived, the Sikh corps was moved outside the fort, and with it all immediate remaining danger.

On the evening of the 14th and during the 15th he continued to fire on the enemy in the villages adjoining. He also sent a steamer, with some gunners, a howitzer, and twenty picked shots of the fusiliers, up the Jamna. They did a great deal of execution. The Sikhs, supported by a party of the fusiliers, cleared the villages of Kaidganj and Natinganj. The insurgents were thoroughly beaten. The Moulavie fled, and the ring leaders dispersed. 'At Allahabad', wrote Lord Canning to the Chairman of the East India Company, 'the 6th regiment has mutinied, and fearful atrocities were committed by the people on Europeans outside the fort. But the fort has been saved. Colonel Neill, with nearly three hundred European fusiliers, is established in it, and that point, the most precious in India at this moment, and for many years the one most neglected, is safe, thank God. A column will collect there (with all the speed which the means of conveyance with allow of), which Brigadier Havelock, just returned from Persia, will command.' Before Havelock came, cholera suddenly appeared. It did not last long, but within three days carried off fifty men. Neill set to work energetically to equip a small force to push into Cawnpore to relieve Wheeler; he also collected guns and material for a large force to follow. For his services at Allahabad he was promoted Colonel in the army and appointed Aide-de-Camp to the Queen.

Injudicious instructions.

Havelock arrived on 30th June. The column which Neill had prepared for Cawnpore started under Major Renaud on 3rd July. News had just arrived from Lucknow of the terrible tragedy enacted at Cawnpore, but it was not fully believed; at any rate hopes were entertained that the story might be the invention of Nana Sahib. Captain Spurgin of the Madras fusiliers, with one hundred men and two guns also left Allahabad on 3rd July on board a river steamer to co-operate with Renaud. Havelock was delayed by want of bullocks for a few days, but finally left Allahabad on 7th July. Neill was left at Allahabad to reorganize another column. It was a great disappointment to Neill that, after his successes at Allahabad, he should be

superseded by a senior officer; but he was somewhat consoled on 15th July by a telegram from the Commander-in-Chief directing him to hand over the command at Allahabad to the next senior officer, and to join Havelock as second in command. Neill reached Cawnpore in five days. His instructions were, to say the least, injudicious. They led him to think, rightly or wrongly, that the authorities had misgivings as to Havelock, and had complete confidence in him, while it led Havelock to regard Neill with some suspicion. On Neill's arrival at Cawnpore he was at once met by Havelock, who desired that there might be a complete understanding between them. Neill was to have no power nor authority while he was there, and was not to issue a single order. When Havelock marched on Lucknow he left Neill in command at Cawnpore.

Neill had only three hundred infantry, half a battery of European artillery, and twelve veteran gunners with him in Cawnpore when Havelock endeavoured to advance to the relief of Lucknow. Neill's instructions were to endeavour to defend so much of the trunk road as was then in British possession in the neighbourhood of Cawnpore, to aid in maintaining Havelock's communications with Allahabad and with Cawnpore, to strengthen the defences on both sides of the river, to mount heavy guns in them, and to render the passage of the river secure by establishing, in co-operation with the two steamers, a boat communication from entrenchment to entrenchment. Havelock commenced the passage of the river on the 20th, but it took a week of labour and difficulty before the whole column was assembled on the Oudh bank. On the 29th Havelock advanced on Onao and routed the enemy. He gained another victory at Bashiratganj and then fell back on Mangalwar. On 31st July he informed Neill that he could not advance to Lucknow without further reinforcements, and desired Neill to furnish workmen to form a bridgehead on the Oudh bank, to collect rations for his troops, and get ready two 24-pounder to accompany his advance, and push across any British infantry so soon as they might arrive. Havelock no doubt was right to risk nothing in order to make sure of relieving Lucknow effectually, but his retrograde movement created bitter disappointment in Cawnpore, and Neill chafed so much

A plan for your health

The first Five Year Plan helped the farmers of India to exceed the target for food-grains by three million tons. Food-

grains are, of course, the mainstay

of our diet; but health and dietary experts point out that unless they are

supplemented by other essential

nutrients, our diet lacks the proper nourishment to keep us

healthy. A *balanced diet* is a necessary part of any plan for

the health of the nation.

Fats and vitamins are two of the five essential food factors that make up a balanced diet. The others are proteins, carbohydrates and minerals. Besides being a concentrated energy food, fats help the body to assimilate other foods and make proper use of them to build the body and keep it fit.

Vitamins are necessary for the sound development of bones, muscles, nerve and brain tissue.

Each vitamin imparts its special benefit—Vitamin A prevents night blindness, resists colds, keeps the eyes

and skin healthy; Vitamin D (the 'Sunshine' vitamin) prevents rickets and softening of the bones.

The Nutrition Advisory Committee of

the Indian Council of Medical Research recommends at least 2 oz. of

fat per day for adults, whereas the average consumption of

fat per adult per day is only about $\frac{1}{2}$ oz. in this country.

It is therefore heartening to note that Vanaspati manufac-

ture has increased by about 1 lakh tons between 1950 and

1955—thus making a valuable contribution to the total pro-

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oils and has Vitamins A and D added to it; in fact, every ounce of

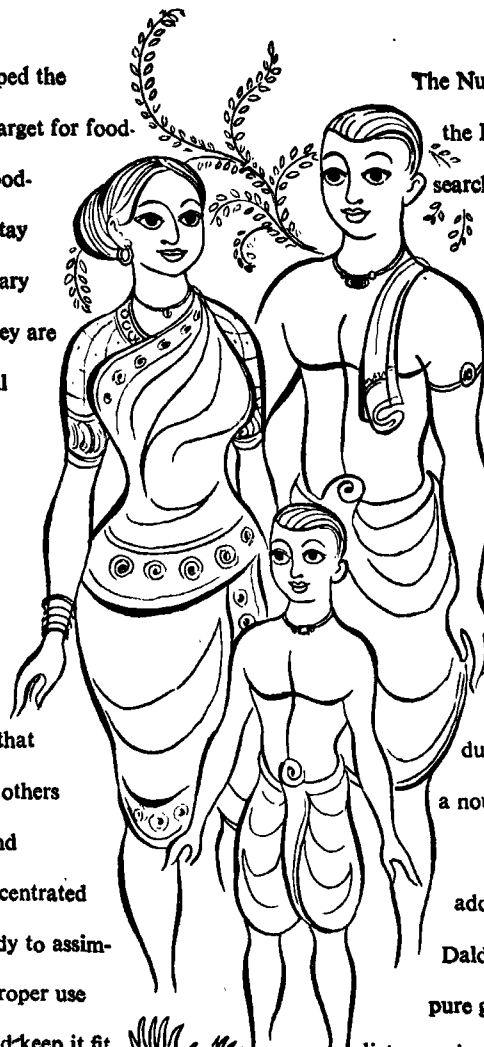
Dalda is as rich in Vitamin A as pure ghee. That is why more and more

diet-conscious people are planning their meals to include dishes cooked with Dalda Vanaspati,

because they know that it adds to the food value of every dish. Untouched by hand during manufacture,

Dalda comes to you fresh in sealed tins—

with the familiar palm tree emblem which is your guarantee of a nourishing fat.



HVM. 301A-X52

under his mortifications that he wrote a very insubordinate letter to Havelock, complaining bitterly of his action. He received a severe reply. Havelock again pushed forward, but once more, after further successes in the field, felt compelled to await reinforcements before he could make good his advance upon Lucknow.

Threat at Cawnpore.

While Havelock was thus advancing and waiting, Neill was threatened at Cawnpore by large bodies of insurgent sepoys. He sent the steamers up the river with a small force and two field guns and a mortar, and checked the rebels to some extent, but on 10th August they approached nearer. A part of Neill's small force was sick in hospital, and Neill sent word to Havelock that he could not keep open his communications, as his force was barely sufficient to enable him to hold on to Cawnpore, and that four thousand men and five guns were at Bithor, already threatening Cawnpore. So Havelock, having struck another blow at the enemy at Burhiya, returned, attacked the enemy at Bithor on 16th August, dispersed them, and established himself in Cawnpore. Then came cholera. The troops were not adequately provided with shelter during the rainy season, and Neill thought they were unnecessarily exposed. Neill, who was a friend of the Commander-in-Chief, Sir Patrick Grant, kept up a correspondence with him, in which he seems to have criticised Havelock's doings freely, and Grant, on relinquishing the Commander-in-Chief to Sir Colin Campbell (afterwards Lord Clyde) wrote a friendly letter to Neill, impressing upon him the necessity of loyally supporting his immediate superiors. Unfortunately Neill did not act upon this advice. He opened a correspondence with Outram, who was coming up with reinforcements to take command, and expressed his opinions as freely to him as he had done to Grant. Havelock and Neill were essentially unlike both in character and disposition, and neither sufficiently appreciated the other. But despite Neill's attitude of disloyalty to Havelock, which is the one blot upon Neill's fame, Havelock was magnanimous enough to take Neill with him in the advance to Lucknow, with the rank of Brigadier-General to command the right wing of the force. On the 15th, on Outram's arrival, the arrangement was confirmed and orders issued, the

right wing consisting of the 5th and 84th foot, the Madras fusiliers, and Maude's battery of artillery.

Hair breadth escape.

The advance commenced on 19th September. On the 21st the enemy opened fire, but were driven off the field. Then it rained incessantly, but the column marched on until half-past three, when the troops were quartered in a small serai. It rained all night and all the 22nd when a similar march was made without any fighting, and on the arrival of the force at their bivouac the guns at Lucknow were distinctly heard. On the 23rd there was a bright sun, and the men felt the heat greatly. On approaching the Alambagh, where a considerable force of the enemy was posted, fire was opened by the British force advancing in line as soon as they came within range. While crossing a deep water course Neill's horse plunged and nearly fell, and as he did so a round shot grazed the horse's quarters, passing a few inches behind Neill. The line was exposed to a heavy fire, and many fell. Neill rode in front of the Madras fusiliers, and cheered on the men, waving his helmet. The enemy were driven back a mile beyond the Alambagh, and the force occupied the Alambagh for the night. The baggage had not come up, and a pouring rain for an hour caused discomfort to the force. Neill at once got permission for an extra dram for the men. On the morning of the 24th the enemy's fire was annoying, and the force was ordered to move a thousand yards to the rear, to be more out of range of the enemy's guns; but in executing the movement there was much confusion among the baggage animals and carts, and the rebel cavalry charged the rear-guard and baggage-guard, killing a good many men. Neill ordered up two guns and the volunteer cavalry. The rebel cavalry galloped off again, leaving fifteen of their number dead. Then Havelock's force rested, and arrangements were made for the attack on the morning of the 25th. Neill marched off at 8 a.m. with the first brigade in advance. The brigade consisted of Maude's field battery of artillery, the 5th fusiliers, a detachment of the 64th regiment, the 84th foot, and the Madras fusiliers. They had not advanced two hundred yards when they were met with a murderous cross-fire from the rebel guns, and also with a heavy musketry fire Neill pushed on, telling Maude to

do his best to silence the guns. Neill directed his infantry to clear the walled enclosures on each side of the road, whence came the enemy's musketry fire. On turning into a village they were met by two guns firing straight down the road. Neill, at the head of the Madras fusiliers, charged the guns.

Shot dead from house top.

Numbers of Neill's men were moved down, but the guns were captured. Neill then led his men round the outskirts of the city with very trifling opposition until they reached the road along the bank of the Gumti towards the residency. They halted once or twice to let the guns come up, and thought the worst was over. But as they approached the mess-house and the Kaisar Bagh a sharp musketry fire was opened upon them. The fire was returned, but for some two hundred yards the column was exposed to an incessant storm of bullets and grape shot. It was now nearly sunset. As they passed out of the lane into a court-yard, fire was opened from the tops of the houses on each side. Neill was on his horse giving orders, trying to prevent too hasty a rush through the archway at the end of the court, when he was shot dead from the top of a house. Spurgin of the Madras fusiliers save his body, and, putting it on a gun-carriage, carried it into Lucknow. As the church-yard was too exposed to the enemy's fire to admit of funerals in the daytime, he was buried on the evening of the 26th.

Lord Canning, in publishing the despatches on the relief of Lucknow, wrote Brigadier-General Neill, during his short but active career in Bengal, had won the respect and confidence of the Government of India; he had made himself conspicuous as an intelligent, prompt and self-reliant soldier, ready of resource and stout of heart.

The Gazette announced that, had Neill lived, he would have been made a K.C.B. and his widow was declared to enjoy the same title and precedence to which she would have been entitled had her husband survived and been invested with the insignia of a K.C.B. The East India Company gave a liberal pension to the widow. Memorials were erected in India in Neill's honour and a colossal statue by Nonle was erected in Wellington Square, in his native place.

A Legend About the Great Builder— Thirumal Naick of Madurai

By Sri S. VARADARAJULU NAIDU, the District and Sessions Judge of Ramanathapuram at Madurai.

Every one who has known Madurai, the second largest City in the State of Madras, knows the Thirumal Naick Palace, which like the great temple in the same City dedicated to Goddess Meenakshi, is a thing of everlasting beauty. The Great Thirumal Naick, who ruled at Madurai between 1623 A.D. and 1659 A.D., was a great devotee of the Gods and the Goddesses of the Hindu Pantheon. There are several temples south of Madras, which had benefited materially in some measure or other, owing to his devotion to the deity of that temple.

In Srivilliputtur, a town 46 miles south-west of Madurai, famous in Vaishnavite religious lore, has the replica of the Madurai Thirumal Naick's Palace, though of a smaller dimensions, built by the same which now houses the Srivilliputtur Taluk Office and the Srivilliputtur District Munsif's Court. The Siva temple dedicated to Sri Vydhinathaswami is one of the two attractions of Srivilliputtur, the other being the temple dedicated to Sri Andal, sung by some of the Alwars. Great was the suffering of Thirumal Naick from stomach pain, when he happened to be at Srivilliputtur during one of his tours. As a mark of his thanksgiving to the Lord Vydhinathaswami (the Lord of the Healing Art) on his obtaining complete relief from his suffering after prayer at His Feet, Thirumal Naick constructed in granite stone, but inlaid with wood work, a mantapam, called "Nataka (Drama) Mantapam" at that shrine. This mantapam is a remarkable structure of exquisite workmanship, comparable only to the similar mantapam, called the "Kalyana Mantapam" constructed by the same Prince at the Meenakshi temple at Madurai. Even today Thirumal Naick in granite statue, along with his two consorts, stands prominently in the "Nataka Mantapam" at the Sri Vydhinathaswami temple.

There was never a day, when Thirumal Naick did not worship the Great Giver of his health, from under the "Nataka Mantapam," before partaking of his midday meal. But the duties of a monarch were not confined only to the worship of deities; and Thirumal Naick, who was obliged to be at Madurai, the seat of his Kingdom, hit upon a plan which by the uniqueness of conception is unparalleled in the history of man in his devotion to God. At every two miles from Srivilliputtur to Madurai, there rose up structures to house musicians, who played on the musical instrument called 'Nagar'. The musicians at the first post two miles away from Srivilliputtur on hearing the sound of the 'Nagars' from the precincts of Sri Vydhinathaswami temple played upon their own 'Nagars'. On hearing the sound of the music from their 'Nagars', the musicians at the second post played upon their respective 'Nagars'. In this fashion, the sound of the music, reverberating from the shrine of Sri Vydhinathaswami at Srivilliputtur, was passed on to the Palace of Thirumal Naick at Madurai. On hearing the sound of the music from the last post two miles away from Madurai, the musicians at the Palace played upon their own 'Nagars'. On hearing that music, Thirumal Naick felt as though he was in the presence of Lord Vydhinathaswami, worshipped Him from where he was, and then partook of his food.

It is not possible today to locate the several posts, said to have been constructed by Thirumal Naick at every two miles from Srivilliputtur to Madurai; and hence the Disbelieving Eyebrows may raise to view the story of the devotion of Thirumal Naick as an untrue legend. However, we should be proud that tradition has handed down this legend, which bears noble testimony to the Great Bhakti, which pervaded Thirumal Naick. And strange indeed is the course that his Bhakti took!

(Continued from page 17)

State Government Scheme.

The Madras Government also availed themselves of the financial assistance of the Government of India under the scheme and formulated proposals in 1954 for the construction of 936 houses in Tambiam and Erukancheri on the land purchased from the management of the Buckingham and Carnatic Mills, Madras. The Government of India agreed to sanction a loan of Rs. 12.46 lakhs being 50 per cent of the cost and development of the land and cost of construction of buildings and an equal amount as subsidy. The actual cost of the scheme is likely to exceed the standard cost on which assistance is granted by the Government of India and the difference in cost to the extent of Rs. 4 lakhs will be met by the State Government.

The construction of these houses was started in July 1955 and has now almost been completed. This colony which was opened by the Chief Minister as 'Thiru Vi. Ka Nagar' consists of 486 houses. The layout, designs and plans have been drawn up by the officers of the Public Works and the Town Planning departments. Each house contains a spacious living room and a kitchen with a separate bathroom and veranda. Each house has also been provided with electric lights. The provision of other amenities in the colony such as school, shops, etc., is also under consideration. The lay-out of the colony provides for sufficient open space for this purpose. I am sure that with these amenities, provided for, low nominal rent of Rs. 10 only, the workers who occupy the houses will be more comfortable than elsewhere. The maintenance of the houses in both these colonies has been entrusted to the Labour Department. A Managing Committee has been constituted for this purpose with two representatives each of the employers and employees and the Labour Officer, Madras, as the Chairman. This Committee is generally responsible for the allotment of houses according to the rules drawn up for the purpose by the Government and for the general maintenance of the colonies. One hundred and twenty-one houses have so far been allotted by the Committee. The Government of India have recently agreed that 1 per cent of the houses in these two colonies can be allotted to the Government Transport.



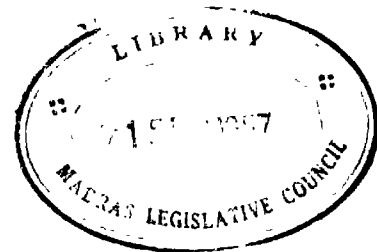
PRESIDENT'S BRIEF VISIT TO STATE CAPITAL



President Rajendra Prasad halted for few hours in Madras City on his way to Trivandrum on August 10, 1957, and again on August 16, 1957, when he returned to Delhi. The President participated in the Independence Day Celebrations at Trivandrum, capital of Kerala in accordance with the Convention that the Head of the Country should be at a State's Capital in rotation during the Independence Day Celebrations. The President was in Madras State during the last year.

The President, who arrived by train from Hyderabad, was received by Sri A. J. John, Governor and Chief Minister Kamaraj and was given a guard of honour by a contingent I.A.F., Tambaram, at Central Station on August 10. Dr. Prasad returned to Madras on the morning of August 16, by train and later left for Delhi by plane. He had tea at the airport lounge with Chief Minister Kamaraj and other Ministers and was introduced to V.I.Ps. before he boarded the plane. He is seen in the last picture shaking hands with C. Subramaniam, Minister for Finance.





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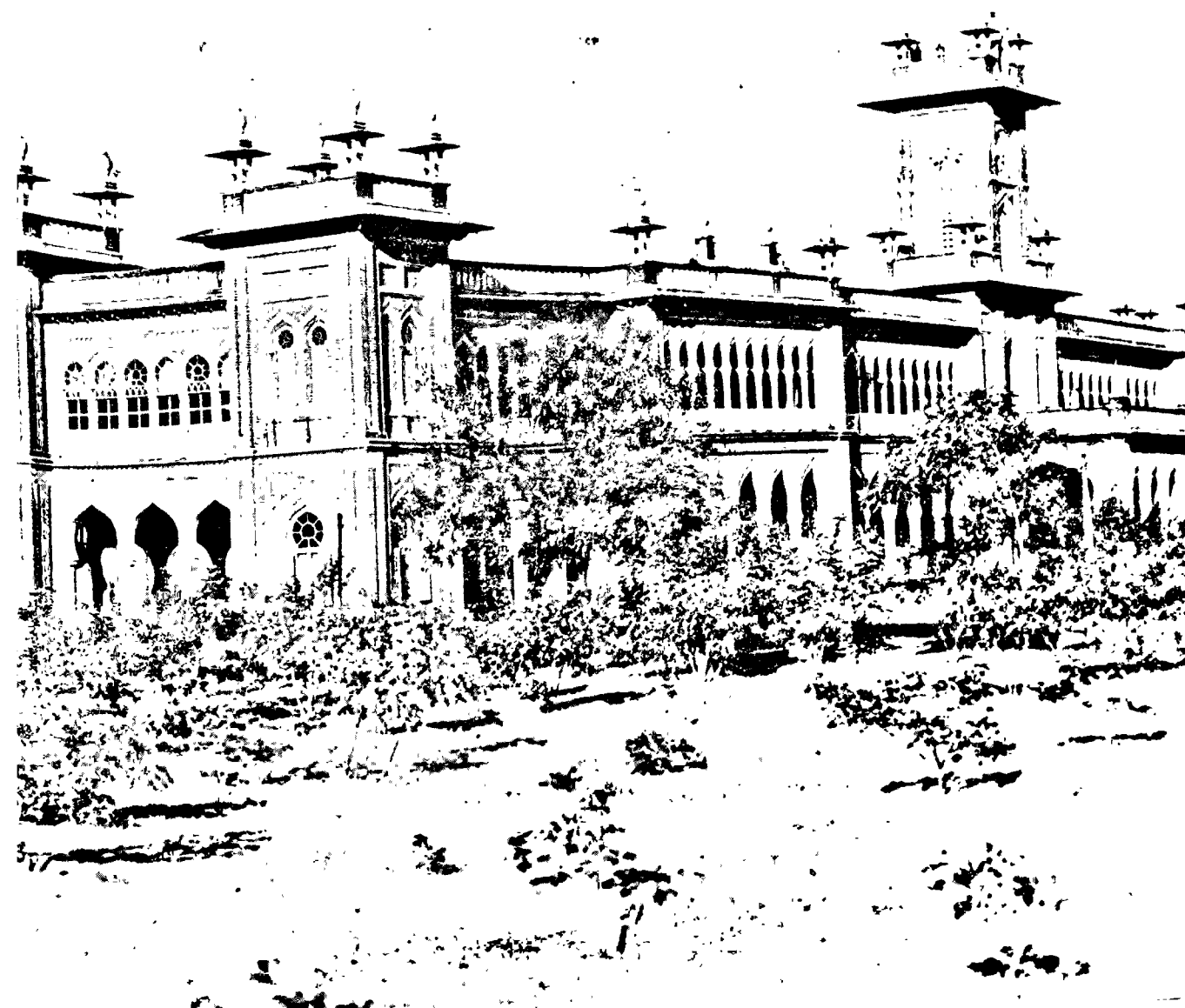
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MADRAS *Information*

OCTOBER 1957





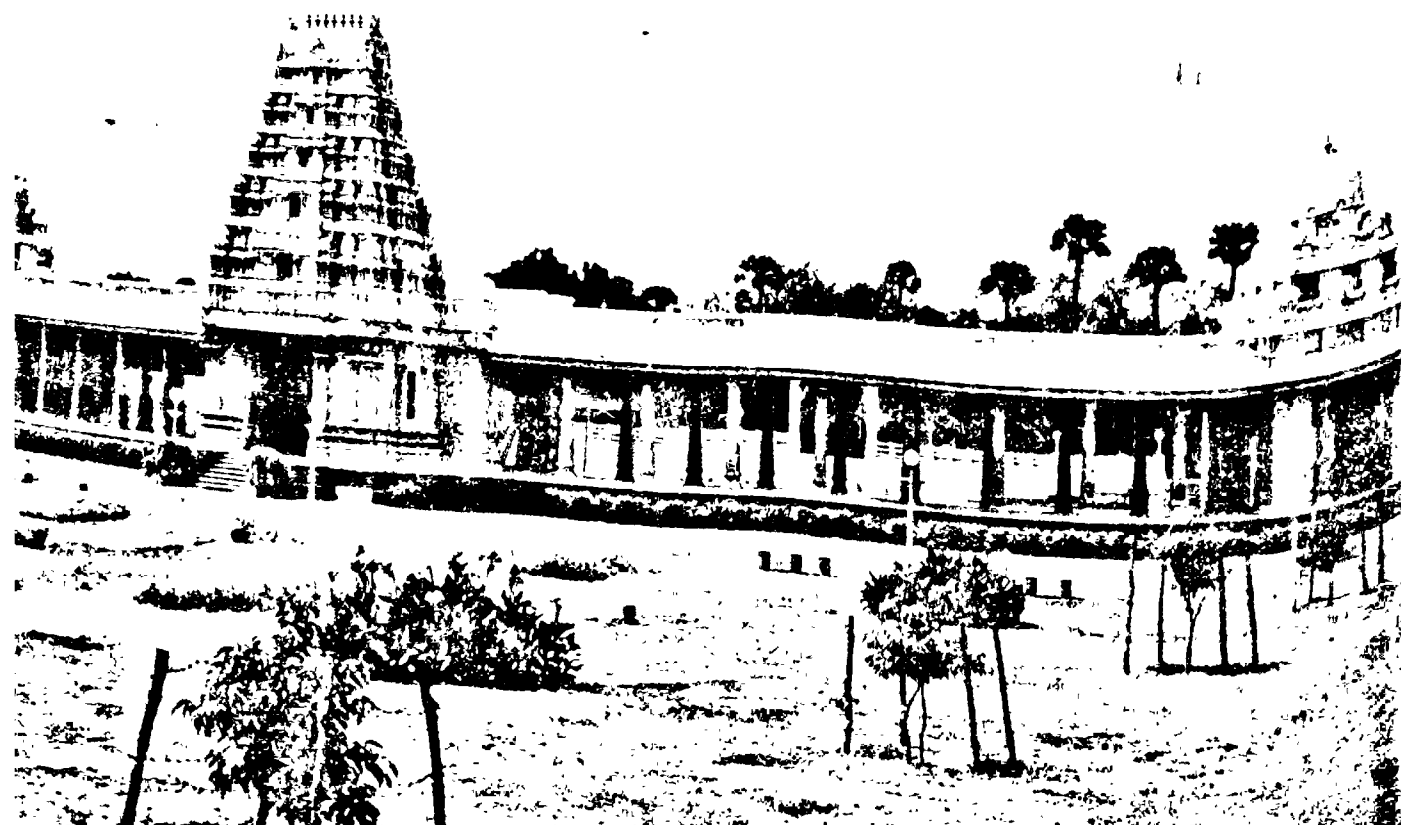
Let us always be worthy of him

Eighty-eight years ago the Father of our Nation was born. He fought for us relentlessly for nearly half a century and when he left us about ten years ago, he made us a Free People much respected by the Great Nations of the World. The only fitting homage we can pay to him is to pledge ourselves to be always worthy of that Great Soul.

The Government of Madras are straining every nerve to emancipate the masses by following the path which was dear to Gandhiji's heart.



Below: A view of the Gandhi Mandapam at Adyar in Madras.



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"WE SEEK TO SERVE AND NOT TO COMPETE"

October 1957



We record with profound regret the sad and sudden demise of Sri A. J. John, Governor of Madras, at 1-50 a.m. on October 1, 1957, at the General Hospital, Madras.

Sri John had been admitted in the hospital for an operation on 20th September 1957.

A resolution touching the demise of Sri John was passed at the meeting of the Council of Ministers held on 4th October, 1957:

"The Council of Ministers of the Madras State places on record its profound grief and sorrow at the sudden passing away of Sri A. J. John, late Governor of Madras, and conveys to Mrs. John and the other members of his family its sincere and heart-felt sympathy."

Sri P. V. Rajamannar, Chief Justice of Madras High Court, was sworn in as the Acting Governor of Madras at a simple and solemn ceremony held at the Secretariat at 11-45 a.m. on October 1, 1957.

Gram Raj thro' Panchayat Unions

Dynamic Move to Make People Plan Conscious

Our Constitution lays down as one of the directive principles of State policy that the State Government 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.

In this State there were already enactments for the organizations of Village Panchayats. The Madras Village Panchayats Act, 1950, was passed shortly after the Constitution came into force and gave effect to the intention underlying this provision in the Constitution. It casts an obligation on the State Government to set up panchayats for every village and groups of small villages and it envisages complete coverage of the entire State with Village Panchayats within a reasonable time. It allotted a considerable number of additional functions and powers to Village Panchayats.

Since then Panchayats have been constituted in large numbers; but we are still very far from achieving complete coverage. Furthermore the expectation that they would take over and perform large new functions has not been realized. There are, indeed, a good many Panchayats of which it cannot be said that they are performing even the pre-1950 functions satisfactorily. The reason mainly is that the Village Panchayats created for small areas with very limited population are unable to employ trained personnel as full-time managerial staff. Nor do they possess adequate resources for maintaining needed technical services. Again, as each Panchayat covers a small area, there are far too many of them in every taluk and district. It is very difficult for Government to provide the services of experienced officers who could advise them and guide them. It seemed impossible to remove these difficulties unless Panchayats were constituted with a large territorial jurisdiction, so as to have at least as large a population as a

medium sized Municipality. But then would such bodies be Village Panchayats at all? Would they not be the same sort of bodies as the old Taluk Boards? Would the village people regard them as their own representative organizations? Unless this was secured, it seemed unlikely that any change would bring about an improvement. It looked as if Government were faced with a dilemma; if the Panchayat is to be genuinely representative and if the intimate needs of the village in respect of such matters as sanitation, water-supply, lighting and so forth were to be properly attended to, it had to be formed for the village which the people themselves recognize as the natural unit. But if the Panchayat is to look after anything more, and provide other services efficiently, it had to be formed for a distinctly larger unit.

Organic Contact

It so happened that the way out of this difficulty is indicated in the 1950 Act itself. The Act provides for the constitution of Statutory Joint Committees for contiguous Panchayats. The Madras District Boards Act also provides for the district board joining with panchayats in performing the functions in which both the panchayats and the district board are jointly interested. The 1950 Act also provides for the establishment and maintenance by two or more panchayats of common institutions like dispensaries, child-welfare centres, etc. and for the appointment of the same officer to exercise the powers and discharge duties of a similar nature in respect of all of them. The principle underlying these provisions of law offered a way out of the difficulties mentioned. The individuality of the Village Panchayat and its organic contact with the village people whom it represented can remain and continue to be maintained. But it need not undertake to perform any functions other than those which it was specially fitted to perform satisfactorily. For other functions, Panchayats of contiguous villages could come together and

set up a common organization for a larger area. Those services which could not be provided to the village people by each Panchayat individually, could be provided in common, by a Co-operative union of all of them. Thus the idea of a 'Panchayat Union' was formulated. In strict legal terminology, Panchayat Union can be merely Statutory Joint Committees of all the Village Panchayats concerned, as well as of the District Board.

Villages as participants

The need for an organization of this nature was at the same time, pressed upon the attention of Government from a different direction. The National Extension Service Scheme of Community Development, India's great experiment in the organization of Rural Development had got under way and come to stay. The decision had been taken to extend the Scheme from year to year according to a phased programme by which all the Villages of the State would be covered by the end of the Second Five-Year Plan period. It was an essential feature of the ideas underlying this Scheme that the village people should themselves take part in the formulation and execution of the various improvements undertaken under the Scheme. Every village was to become a participant in successive Five-Year Plans by which the nation as a whole is marching in step to achieve the aims embodied in our Constitution. The Government of India observed that the progress achieved in respect of active participation by the village people was inadequate. The Ad hoc Committees which had been formed in order to advise the local agencies of Government were indeed useful work; but they did not suffice to make the people feel that that useful work was their own. That was why the Planning Commission has been emphasizing the need for developing village panchayats as the agency for village planning and development and thus constructing a solid foundation for the entire



Inauguration of North Madurai Panchayat Union

To make the functioning of village panchayats more effective and take over the responsibilities of District Boards ultimately the State Government have decided to form Panchayat Unions all over the State with one for every Development Block. The first of its kind—the North Madurai Panchayat Union was inaugurated in the third week of September at Azambanur by Chief Minister, Sri K. Kamaraj. Srimathi Lourdam Simon, Minister for Local Administration, Presided.



The centre pictures show the Chief Minister lighting a Kuthuvilakku and handing over the Cheque Book and other documents to the elected President of the Union, Sri Muthukaruppan Ambalam.



Functions of District Boards

system of National Planning. It was recommended that village panchayats should be organically linked with popular organizations at a higher level and that (by stages determined in advance) democratic bodies should take over the entire general administration other than such functions as law and order, administration of justice and certain functions pertaining to revenue administration.

It was in the light of All-India policy set out in these terms that the proposals for the reorganization of panchayats were reviewed by the Government. The Government arrived at provisional conclusions and embodied them in a "White-Paper on Local Administration" which was placed before the Legislature last year. According to the proposals in the White Paper, the execution of the scheme of Development and Reform of Panchayat Organization should be linked to the execution of Scheme of Community Development. By the end of the Second Five-Year Plan period, there should be a Panchayat for every village in the State without exception. Panchayats in a Development Block should be brought together in Panchayat Unions, and to this end, statutory Joint Committees should be set up. These Committees should be provided with funds and executive staff—technical and administrative guidance.

The proposals in the White Paper of last year, were further reviewed, re-examined by the present Government after the general elections and their revised proposals, covering the whole field of local administration will be placed before the Legislature at its next meeting. So far as Panchayats and Panchayat Unions were concerned, the Government decided to proceed with the provisional conclusions already reached; and in order to ascertain in detail all the administrative, financial and technical implications, they decided to organize a Panchayat Union in one selected Development Block. The North Madurai Panchayat Union was the first to be organised. A memorandum outlining detailed proposals was prepared. The proposals were explained to the villagers and the members of the Panchayats in the Block. They welcomed the idea, which was therefore put into effect.

The North Madurai Panchayat Union consists of the five revenue firkas of Kunnathur, Koolapandi, Othakadai, Arumbanur and Samayanallur. There are 172 revenue villages with a population of a little over one lakh. The Union area is divided into six Panchayat Union Circles, at the rate of one Circle for every firka except in the case of the Samayanallur firka which has a large population and which has therefore been divided into two Panchayat Union Circles. There were 39 Panchayats constituted for 105 revenue villages. Sixty-seven revenue villages had to be covered by new Panchayats. Many of these 67 revenue villages were unduly small. They were, therefore, grouped into 30 Panchayat Villages. Thus the six Panchayat Union Circles include 39 old and 30 new Panchayat Villages or 69 in all. Under the old rule, the number of Panchayatdars to be elected as representatives of one Panchayat Village could not exceed seven. In order to diminish unhealthy competition for membership and in order

to be Transferred to Unions

also to facilitate participation by the natural leaders of different social and economic groups in the village, the strength of panchayats to be newly formed was refixed at the rate of one member for every 100 people for the first 500 population and one member for every 200 people in excess of 500 subject to the maximum of 15 laid down in the Act.

The Panchayat Union was then formed with Councillors chosen by the Panchayats of each of these 69 Panchayat Villages. The scale of representation was fixed at the rate of one Councillor for every Panchayat Village having a population of not less than 1,000 and not more than 3,000. A few village having a population exceeding 3,000 returned 2 councillors each. At the other end Panchayat Villages which (even after grouping) have a population of less than 1,000 are grouped in pairs; and they will send one Councillor to represent each Panchayat Village in alternate years. In the opinion of the Government, it is especially important that every Councillor of the Panchayat Union should

be a representative of some Panchayat Village or another. The Panchayat Union is a Co-operative Union or federation of the Panchayats—it is not an external authority created on a different basis altogether. The new rules provided that the Councillors should be chosen by the respective Panchayats on the basis of the principle of near-unanimity favoured by the Government of India. The Panchayat Union Council will consist in addition to these elected representatives of Panchayats a few other members also. The three members of the Madurai District Board representing the district board circles of Madurai-cum-Samayanallur, Koolapandi-cum-Arumbanur and Othakadai-cum-Kunnathur will be the representatives of the district board on the Council. The Member of the Legislative Assembly representing the Melur General Constituency will be an ex-officio member of the Council. The Block Development Officer of the Madurai Block having jurisdiction over the Panchayat Union area will also be an ex-officio member of the Council. There will be a Chairman of the Council, who will be a member of the Council other than an ex-officio member and will be elected by all the

members of the Council other than the ex-officio members. There will be six Circle Committees of the Union, one for each of the six Panchayat Union Circles and the representatives of the Village Panchayats of that circle will constitute the Circle Committee. Provision has been made for ensuring that there is at least one Harijan member on every circle committee, by co-option, if necessary. The members of every circle Committee will elect from among themselves one member as a Vice-Chairman of the Panchayat Union Council and he will be the presiding Officer of the Circle Committee concerned. All the six Vice-Chairman of the Council will take rank by seniority reckoned according to age. The Block Development Officer who as already said is an ex-officio member of the Union will be the executive authority of the Union. In that capacity he will be designated as the Panchayat Union Commissioner; and his relationship to the Panchayat Union will be the same as that of a Municipal Commissioner to a Municipality.



The Foodgrains Enquiry Committee headed by Sri Ashok Mehta was in Madras in the last week of August. The Committee held discussions with the representatives of Madras Government about the prevailing prices of foodgrains and possible steps to arrest prices from getting out of control.

The Village Panchayats will attend to the elementary needs of the village which are essentially the pre-1950 functions, namely, construction and maintenance of roads and streets in the village, lighting of such roads and streets, cleansing of streets, provision of drinking water-supply and drain and provision of latrines and cleansing them. For raising funds for these purposes, they will continue to have power to levy house-tax, profession-tax, vehicle tax and a land cess of 3 pies in the rupee of land revenue. The Panchayat Union will perform all functions vested in the Village Panchayats under the 1950 Act other than those mentioned above as well as the functions performed by the District Board in the Union area. Therefore all the other district roads and village roads under the control of the District Board will

be transferred to the Panchayat Union for maintenance. The buildings connected with the institutions transferred to the Panchayat Union will be transferred from the District Board to the Union. The schemes of road development included in the Second Five-Year Plan so far as they relate to the district board and lie within the Panchayat Union area will be executed through the Panchayat Union. As all elementary schools and Maternity Child Welfare Centres maintained by the District Board in the Union area will be transferred to the Panchayat Union, it will be the duty of the Panchayat Union to maintain and develop them. The development of primary education is one of the most important among the purposes intended to be secured by the constitution of the Panchayat Union. The duty of bringing

about the planned development of primary education is laid on the Panchayat Union. The planned development of maternity and Child-Welfare Centres included in the Second Five-Year Plan will be executed through the Panchayat Union. For rendering all these services, the services of the personnel of the National Extension Service Scheme will be placed at the disposal of the Panchayat Union and village panchayats free of cost. The pattern of financial assistance normally rendered by the Government to local bodies will be liberalized and resettled in its application to the Panchayat Union in such a way as to enable it to play its part effectively as a participant in the National Five-Year Plan at present under execution and the others still to come.

Towards a Socialist Pattern of Society

Co-operation Marches on

By SRI A. PALANIAPPA MUDALIAR, I.A.S., Registrar of Co-operative Societies.

Co-operation, rightly understood, is the principal means of securing the ends of a socio-economic policy designed to establish a socialist society. It is perhaps the best method which maintains the individual freedom and collective responsibility in sound balance and thus aids the achievement of socio-economic prosperity without sacrificing the dignity of the individual. In whatever field it enters, it ensures equality and justice. There is practically no field of human activity in which its application will not be beneficial to society. In the agricultural sphere, its adoption secures to the toiling ryots, the maximum return for their labour by enabling them to obtain the facilities needed for their operations on advantageous and reasonable terms and to secure a fair price for their produce. On the distributive side, the adoption of the co-operative method ensures fair play and equity to all and the benefits of economic prices to the consumers. In the industrial field, there is no alternative to co-operative organisation for rehabilitating and promoting the village and small-scale industries. In short, co-operation is both a way of life and a moral force which promotes better business and better living.

Co-operation and Planning.

In a country like ours where 80 per cent of the population are agriculturists living in villages, the development of the rural economy should assume great importance in any scheme of National Development and National Planning. Since Co-operation harmonises with the social objectives and principles laid down in our Constitution and since its highlights are equality of all, voluntary association, democratic management, distributive justice and self-help through mutual aid, there can be no doubt that the co-operative organisation is the most effective instrument for promoting the agricultural and rural economy of the country. That is

why the Planning Commission has expressed that "in a regime of planned economy, co-operation is an instrument which, while retaining some of the advantages of decentralisation and local initiative, will yet strive willingly and readily the overall purposes and directives of the plan". The Planning Commission has accordingly recognized co-operation as an instrument of democratic planning combining initiative, mutual benefit and social purpose. The building up of a co-operative sector as part of the scheme of National Development has, therefore, been one of the principal aims of our National policy. The spheres which have been assigned to co-operation are agricultural credit, marketing and processing, all aspects of production in rural areas, consumer co-operatives, co-operatives of artisans and labour and construction co-operatives.

The major programme launched now for changing the phase of our rural economy is the organisation of Community Development and National Extension. The main purpose of this programme is to provide a setting in which the needs and aspirations of the country-side will be realized and to secure rapid advance along democratic and egalitarian lines bringing about a sizable increase in the national income so as to raise the level of living in the country, expansion of employment opportunities and reduction of inequalities in income and wealth and more even distribution of economic power. In carrying out these programmes of Community Development and National Extension Service, there should be a sense of participation by the people and a definite plan of work for improving the standard of living of every rural family. Such a sense of participation can be ensured mainly through the development of co-operative activities, because, these organisations are designed to improve the economic and social condition of the village com-

munity, especially the small farmers, the landless tenants, the agricultural labourers and the artisans. It therefore needs no emphasis that the programme of Community Development and National Service should be effectively integrated with the programme of co-operative development. The Co-operative form of organisation has advantages which neither private enterprise nor State ownership can match. In particular, it offers "a means of achieving results valuable to the community by drawing upon incentives which are social and incentives which are individual". It brings, where it succeeds, "much gains to the community". Basically, in rural areas, the purpose of co-operation is to evolve a system of co-operative community organisation which touches upon all aspects of life. Co-operation should therefore mean an obligation towards all families in the village community and the development of land and other sources and of social services in the common interest of the village and the community as a whole. Programmes of Co-operative Development have been formulated broadly on the basis of this objective and mainly for the purpose of changing the economy of the country from an individualistic to a socially-regulated one.

Co-operative Credit.

The Co-operative Movement, which was started five decades ago in this State, as in the rest of the country, with the modest objective of relieving rural indebtedness, now embraces a diversity of interests and enterprises. Practically, there is no sphere of economic activity which has not felt the vitalising impact of this movement. In the production and distribution of essentials of life, the co-operative organisations have been playing a prominent role. The movement has made great and rapid strides especially in the fields of agricultural credit dairying and milk supply and housing.

In the sphere of agricultural credit, the co-operatives have helped in lowering the lending rate in the country-side and have afforded the ryots a suitable agency for providing seasonal finance on reasonable terms. There is, in this State, a strong and well-defined co-operative credit structure. The Madras State Co-operative Bank at the apex level, 14 central co-operative banks at the district level and about 9,000 primary credit societies at the village level provide short-term and medium-term finance to the agriculturists. In the sphere of long-term agricultural finance, the Madras Central Land Mortgage Bank and its affiliated primary land mortgage banks are playing a vital role. At the end of 1955-56, the co-operatives had covered nearly 68 per cent of the villages and brought within their fold 24.25 per cent of the rural families. The total credit provided to the ryots by the societies by way of short-term, medium-term and long-term loans during 1955-56 amounted to about Rs. 6 crores representing approximately 10 per cent of the estimated annual credit needs of the agriculturists. Nearly 97 per cent of the loans issued by the co-operatives were for productive purposes. Besides the agricultural credit societies, a special type of co-operative credit organisation known as rural co-operative banks was also formed in the year 1955-56 for providing medium term agricultural credit and banking services to the rural population and incidentally also for trying the experiment of large-sized credit units at the primary level. Twenty-six such banks were established of which there are now 23 banks in the reorganised Madras State. While the performance of the co-operatives in the field of agricultural credit in the State is by no means small, there is still a vast field to cover, particularly in the matter of extending the credit facilities to a larger section of the agricultural community and for this purpose, to revitalise the units at the primary level. With this aim in view, an integrated rural credit scheme was drawn up as one of the major co-operative development schemes in the Second Five-Year Plan of this State. This scheme which is based upon State participation in the share capital and management of the societies, full co-ordination between credit, marketing and other economic activities and the administration of the societies through trained personnel as

suggested by the All-India Rural Credit Survey Committee, aims at bringing within the co-operatives, nearly 80 per cent of the villages and 50 per cent of the rural families and providing agricultural credit for short-term, medium-term and long-term purposes to the extent of Rs. 18 crores so as to meet about 30 per cent of the total credit needs of the rural people by the end of the Second Five-Year Plan. Before the scheme was implemented on a State-wide basis, a pilot scheme embodying the salient features of the main scheme was worked in two select taluks in each of the four districts of Tirunelveli, Coimbatore, Ramanathapuram and Chingleput and in view of the good response accorded to the scheme by the people and in view of the results achieved especially in the formation of large-sized units at the primary level and the expansion of the credit and marketing activities, the scheme was extended to the whole State in July 1956 and is now in full swing throughout the State. With a view to make concentrated work possible and to take advantage of the facilities locally available, the scheme is being worked intensively in select areas, especially the Community Development and National Extension Service Blocks. Seventy-four out of 108 blocks in the State have thus been selected for the intensive working of the scheme.

A new line of development in the sphere of agricultural credit has been the organisation of large-sized societies at the primary level. In the context of the increased supply of institutional credit with a view to facilitating increased agricultural production, these primary units are playing a more responsible role in the supply of agricultural credit. They have also made a beginning in the direction of mobilising rural savings and channelling the funds for useful productive purposes. Three hundred societies of this type were programmed to be formed during the plan period and 92 societies have been formed so far. By the end of 1957-58 there will be 240 such societies in the State. The performance of the large-sized societies established so far has been quite encouraging. They had at the end of July 1957, 57,365 members on their rolls with a paid-up share capital of Rs. 14.79 lakhs and they held deposits to the extent of Rs. 9.82 lakhs. They issued during the current year up to 31st July, loans amounting to Rs. 48.33 lakhs. An experimental scheme for the disbursement and recovery of cultivation loans to ryots in kind, i.e., in the shape of manure, seeds, etc., has also been undertaken through the agency of these institutions at the suggestion of our Hon'ble Chief Minister. Fifteen societies selected for the purpose have issued loans to the



Sri K. Kamaraj, Chief Minister, made a district-wide tour of North Arcot in the last week of August. He is seen here addressing a meeting at Anakavur after inaugurating an Ag. Co-operative Bank there. Sri M. A. Manickavelu, Minister for Revenue and Sri B. Bhaktavathsala Naidu, Deputy Speaker, were also present.

The operation of the Integrated Credit scheme during the first year of the plan period (viz) 1956-57, resulted in a general expansion of the

While the agricultural credit societies, provide credit to the rural people, there are urban co-operative banks and employees co-operative credit societies

The disabilities from which the farmers suffer in selling their produce provide the justification for co-operative marketing which strengthens their position as a seller, assures them of regular trade outlet and enables them to obtain better prices. There were in the pre-reorganised Madras State, 119 primary marketing societies on 30th June 1956 with a membership of 1.49 lakhs and a paid up share capital of Rs. 21.69 lakhs. During the year 1955-56, they issued loans to the extent of Rs. 123.81 lakhs and marketed produce as agents and owners to the value of Rs. 2.22 crores. They also distributed seeds, manure, etc. to the value of Rs. 50.89 lakhs. With a view to develop the activities of co-operative marketing societies, a scheme for the development of co-operative marketing of agricultural produce is now under implementation. This scheme envisages the formation of 30 more primary marketing societies so as to cover all market centres and mundies in this State and to develop the business of all the societies according to a phased programme, the objective being that the marketing societies should be able to handle at least 10 per cent of the marketable surplus produce, by the

Increased attention is being paid to the integration of credit provided for cultivation by the credit co-operatives with the marketing operations of the marketing societies. Loans are advanced by the credit societies to their members after taking from them an agreement to the effect that the produce grown with the loan would be sold through the marketing society to which the credit society is linked. By way of integrating credit with marketing, 584 societies were linked to the marketing societies till 31st March 1957 and they provided during 1956-57 cultivation loans to the extent of Rs. 18-72 lakhs. The value of the produce brought by the borrowers of these societies for sale to the marketing societies was Rs. 65-24 lakhs between April 1957 and July 1957. The marketing Societies selected for intensive development issued loans on the

A notable line of development in recent times is the formation of processing co-operatives so as to encourage agriculturists to organise and establish processing industries based on the crops

A co-operative cotton spinning mill composed of cotton growers has also been registered at Srivilliputtur in the Ramanathapuram district. The peculiar feature of this institution is that it embraces not only the growers who provide the raw materials but also



The village development scheme undertaken by the City Police at Nazarethpet near Poonamallee was inaugurated by Sri K. Kamaraj, Chief Minister, in the third week of August. Sri M. Bhaktavatsalam, Minister for Home, presided. It may be recalled that the City Police built houses for the Harijans at Kattupakkam village as part of their reconstruction work.

Eight thousand acres under Co-operative Farming

weavers societies who would consume the finished products. The society will commence working with 12,000 spindles shortly.

Co-operative Farming.

There were 30 Co-operative farming societies of the tenant farming type in this State for agricultural labourers and ex-servicemen and they had brought under cultivation 8,055 acres of lands upto 30th June 1957. The attempts at co-operative farming so far made in this State have been in the direction of tenant farming with the main idea of settling Harijans and the landless poor on land. While this kind of societies should be encouraged in the interests of the type of people for whom they are intended, there is, of late, an increasing recognition of the need for collective endeavour in agriculture by pooling small holdings owned by ryots and undertaking joint or collective cultivation of these lands by the adoption of improved methods of agriculture. It is believed that by doing so agricultural production can be increased. The report of the Patil Delegation to China on Farming Co-operatives has been published and it is expected that a definite policy in regard to the development of Co-operative farming in the country will be evolved soon. In the Madras State, organised efforts are now afoot in the direction of farming co-operative farming societies of the joint farming type wherever the people come forward voluntarily to pool their holdings and cultivate them jointly. A co-operative joint farming society was established at Valundur in the Madurai district towards the close of the year 1955-56. Following this, two more societies of the same type have been formed one at Sivagiri in the Chingleput district and another at Nadhagoundanpudur in the Coimbatore district. A Co-operative Tenant Farming Society has already been registered at Nainarpalayam in the South Arcot district. In the Valundur joint farming society, 165 members have so far pooled their lands for joint cultivation. The other societies will begin work shortly. Proposals are on hand for the formation of a joint farming society at Bakkapuram in the Nilgiris district, a collective farming society at Randham in the North Arcot

district and a tenant farming society at Kilianur in the South Arcot district. These proposals will be finalised soon. It is hoped that the formation and working of these societies will pave the way for spreading the ideal of co-operative farming and that the small landholders in the other parts of the South will enthusiastically and voluntarily come forward to form themselves into similar co-operative societies by pooling their lands and resources for joint cultivation.

The organisation of more co-operative farming societies of the collective type has also become possible on account of the lands made available under the Bhoodan Yagnya. An experiment in this direction has been undertaken in this State and a Co-operative Farming Society has been registered recently at Thannirpandalpudur in the Coimbatore district where Bhoodan lands covering an extent of about 300 acres are proposed to be utilised for the benefit of about 60 families of landless people. The gramdan movement which is spreading slowly but steadily in the country affords the most congenial climate for the successful operation of co-operative farming organisations.

Dairying and Milk Supply.

Dairying is one of the most useful subsidiary occupations undertaken by agriculturists to supplement their income. The organisation and development of dairying on a co-operative basis enables the agriculturists to augment their income besides improving the cattle wealth, increasing milk productions, ensuring supply of adequate quantities of pure milk to the public and raising the per capita consumption of milk which is comparatively low being 4-18 oz. in the Madras State as against 5-5 oz. for All-India and 30 to 35 oz. in the Western countries. In Madras, efforts have been made with a fair amount of success for organising the Dairy Industry on Co-operative lines. At the end of 1955-56, there were 19 milk supply unions and 586 milk supply societies functioning all over the State. Schemes are under implementation under the Second Five-Year Plan for stepping up production, for preserving milk for longer periods

by establishing pasteurisation plants so as to facilitate distribution and for improving the cattle wealth in the State. The scheme aims at the organisation of more milk supply co-operatives and the development of the business of the existing ones so as to increase the average daily production of milk from 39,200, Madras Measures to 59,780 Madras Measures by the end of the plan period. The production has been increased to 43,643 Madras Measures per day by the end of the first year of the Plan. The Milk Supply Co-operative Society at Kodaikanal, has installed a pasteurisation plant at a cost of Rs. 32,000 with necessary financial assistance from Government, and proposals are under consideration for the establishment of a big plant at Coimbatore at a total cost of Rs. 10.36 lakhs. For the improvement of four Co-wealth, the establishment of four Co-operative Salvage farms and the organisation of 11 Cattle Breeding Societies have also been provided for in the Plan. One salvage farm at Thuvakudy, in Tiruchirappalli district, has already been established and arrangements for establishing another salvage farm at Abishekappatti in the Tirunelveli district are in progress. Two cattle breeding societies have been started at Semmanangur in the South Arcot district and Appanayappanpalayam in Coimbatore district and two more cattle breeding societies will be formed very soon, one at Beemakulam in the North Arcot district and the other at Uthiramerur in the Chingleput district

Development of Handloom Industry.

Next to agriculture, the handloom Industry occupies an important place in the rural economy. Madras has about five lakhs of looms which provide employment to a large number of rural families. The industry which received a set-back sometime ago on account of unfavourable market conditions and the keen competitions from the Mills has been rehabilitated considerably thanks to the liberal assistance provided by the Government of India under the Cess Fund Scheme. The Co-operatives afford a convenient and effective agency to the Central and State Governments for the implementation of the various ameliorative schemes connected with the resuscitation of the handloom weavers. At the end of 1955-56, there were 842 weavers' co-operatives with 1.57 lakhs of looms in their fold. The production in the societies has nearly

doubled itself to about Rs. 647 lakhs and the sales also increased from 488.12 lakhs to Rs. 589.22 lakhs. Several schemes have been drawn up and included in the Second Five-Year Plan for the development of the Industry. The objectives of these schemes are to bring in more than 50 per cent of the looms into the co-operative fold by giving interest-free advances to the weavers to take shares in societies and by providing working capital to the societies through the co-operative financing banks, to establish housing colonies for weavers, to organize industrial co-operatives for their benefit and to improve the technique of production by establishing pattern-making factories and undertaking research in improved appliances. The sanction of rebate on sales of handloom cloth with a view to promote marketing is also a major item in the development scheme. Up to 31st March 1957, 30,238 looms were enrolled into the weavers co-operatives and Rs. 68.70 lakhs were provided for issue of share capital and working capital loans. Nine housing colonies for weavers have been sanctioned by Government. These colonies are estimated to cost Rs. 42.12 lakhs and will consist of 978 houses. A colony will normally have 100 houses and provide necessary amenities to the weavers. Active steps have been taken to expedite the completion of the colonies. During 1956-57, 3,941 improved appliances were purchased and supplied to primary Weavers Co-operative Societies and the State Handloom Weavers Co-operative Society at Madras. A sum of Rs. 105 lakhs was spent towards rebate on the sale of handloom cloth. Twenty depots were opened by the Madras State Handloom Weavers Co-operative Society during the year and there are now 264 selling units all over the State. The Society has also opened emporia for the sale of co-operative handloom fabric outside the Madras State in this country and in the foreign countries as well. This ancient industry of our State is making steady progress under the auspices of the weavers co-operative organisations.

Housing.

With the increase in the population, the problem of housing has been acutely felt not only in the urban and semi-urban area, but in the rural parts as well. At the end of June 1956, there were 139 ordinary building societies, 39 house building societies, 10 house construction societies, 3 industrial

housing societies, 1 co-operative Township and 2 co-operative tenancy societies. 7,121 houses of all types have been constructed by these societies since their inception. In addition to the urban housing societies and the industrial housing societies, there were 69 rural housing societies, with a membership of 1,534 and a share capital of Rs. 1.59 lakhs. 30 houses have been constructed by these societies. During 1956-57, loans to the extent of Rs. 51.14 lakhs were given under the urban housing scheme. 31 new societies were registered and 653 houses were constructed. During the current year, 4 societies are proposed to be formed and 500 houses are expected to be constructed. 3 housing societies for Industrial Workers, one at Peelamedu in the Coimbatore district, another at Sivakasi in Ramanathapuram district and the third at Koilpatti in the Tirunelveli district have been formed and the first of these societies has been sanctioned loan and subsidy to the extent of Rs. 3.23 lakhs for putting up 144 tenements for its members who are mill workers at a total cost of Rs. 6.92 lakhs. The proposals of the other two societies are awaiting sanction. One more society at Nellikuppam has since been registered and another society at Dalmiyapuram in Tiruchirappalli district will also be started soon.

Co-operative Education and Training.

The provision of adequate facilities for the training of the co-operative personnel, both official and non-official, is of utmost importance in any scheme of development of the co-operative movement and of carrying the message of co-operation to the length and breadth of the country. In the Madras State, there is a Central Co-operative Institute in Madras for the training of candidates recruited for the Department and there are three co-operative training institutes at Coimbatore, Tanjore and Madurai for the training of non-official employees. The proposal to run higher courses of training in the Central Co-operative Institute and to upgrade it into a Co-operative Training College is still under consideration. The need for training has become more and more urgent in view of the growing complexity of the movement. The need for imparting co-operative training to the members and office-bearers of co-operative societies has also been realised and a scheme drawn up by the All-India Co-operative Union is now being implemented in this State. Under this

scheme, 1,000 members and 200 panchayatdars will be given training at 40 centres.

Co-operation and Community Development Programme.

The Co-operative Movement is making rapid strides in the Community Development and National Extension Service areas, where concerted efforts are under way to co-ordinate the economic activities of the co-operatives with the Community Development programmes. The major scheme of co-operative development, viz., in the sphere of credit, marketing, milk supply and housing are now being intensively implemented in these Community Development and National Extension Service areas. A heavy programme of organisation of more credit co-operatives, milk supply societies, weavers societies, housing societies, etc., is carried on in these areas with the help of the Extension Staff. Till the end of July 1957, there were 3,923 co-operative credit societies in the Community Development and National Extension Service blocks covering 5,039 out of 6,265 villages and serving 18.3 per cent of the rural population. To promote co-operative development in these areas on a scientific and planned basis, the Government have ordered the upgrading of the post of the Senior Inspector Extension Officers in the Blocks into those of Co-operative Sub-Registrars. In order to make the village level workers play a more effective role in implementing the co-operative development programme in the block areas, a proposal to impart them practical training in co-operative work is under consideration.

Conclusion.

Co-operation has thus a very significant role to play in the building up of our country. The centre and the State Governments are giving increased attention for the spread of this movement particularly as a part of the Community Development Programme. Our Prime Minister has, on more than one occasion, expressed categorically that, if there is one subject more than another which requires an enthusiastic approach, full of faith and a crusading zeal, it is Co-operation and that the socialist pattern of society which we want to build is intimately related to Co-operation in various fields. If the principle of Co-operation should govern

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In the Foot Steps of Mahatma . . .

Development of Cottage Industries on Unprecedented Scale

By Sri T. K. PALANIAPPAN, I.A.S., Director of Industries and Commerce.

Saint, Savant, and Saviour of India as he was, the Mahatma was no less an Industrial Economist.

"Are you against large-scale production?" was the question that was darted at him by a group of Western economists 20 years ago.

"I never said that. This belief is one of the many superstitions about me. What I am against is the large scale production of things that the villagers can produce without difficulty. Villages must become self-sufficient. It is beneath human dignity to lose individuality and become a mere cog in the machine. I want every individual to become a full blooded, fully developed member of society." These were the words of wisdom that dropped from the lips of Gandhiji whose birthday we are celebrating this week. His inspiring message showed the path to freedom and the way for every individual to have a self reliant existence in a free society. His unerring

instinct laid emphasis on the development of village and cottage industries, which alone can give opportunities for employment to the millions wholly or partially unemployed in this vast agricultural country of ours. His programme envisaged not only the provision for employment but also the production within the villages of the barest necessities of life to the millions.

Village industries are those that meet the daily requirements of every household. They are the village oil industry, hand-pounding of paddy, village tanning, village pottery, flaying and bone crushing, palmgur, bee-keeping, cottage match industry, soap making from non-edible oils, gur and khandasari, hand-made paper, carpentry and blacksmi hy, etc. Under the Second Five-Year Plan a sum of Rs. 55 crores has been set apart for the Khadi and Village Industries in the country. In our State the Plan provides a sum of Rs. 218 lakhs for village industries

excluding Khadi. One hundred and sixty-two units costing about Rs. 40 lakhs have so far been sanctioned for the development of village industries, most of them being located in the National Extension Service and Community Development Blocks where an integrated development of the rural areas is being attempted. The implementation of several schemes under village industries is expected to provide full-time employment to 1,910 persons and part-time employment to 53,900 persons.

Large scale development of handicrafts

The development of the small-scale handicrafts, village and cottage industries is being attempted perhaps for the first time on such an enormous scale covering such a large number of villages. This type of activity is also new to the Government and hence has to be developed with great care and fore thought. To study these aspects and gain experience, a pilot project for development of cottage industries covering six Blocks in the Lower Bhavani area has been started. The Pilot Project will in addition to intensifying the development of cottage industries in that area, also make a study of all cottage industries and find out the best method of co-ordinating them. It is just a year since the Pilot Project started functioning. A detailed survey of the possibilities of the area in respect of the development of cottage industries has already been undertaken and what is known as a long range programme is under preparation. Meanwhile a number of immediate programme of schemes at an expenditure of Rs. 4,89,730 have been sanctioned and are under implementation. This will give

full-time employment to 160 persons and part-time employment to 215 persons in the Pilot Project area.

One Central Workshop for manufacturing metallic parts for the Ambar Charka and six units (Saranjam Karyalayas) for manufacturing the wooden parts and assembling the charkas at a total cost of Rs. 20 lakhs and with production capacity of 12,000 Ambar charkas per year are being set up. The Central workshop and one Saranjam Karyalaya will be located in the Industrial Estate, Guindy and the other Saranjam Karyalayas at Pettai near Tirunelveli, Tiruchirappalli, Tirupur, Vadalur and S.V. Nagaram near Arni. The Saranjam Karyalaya at Madras has already started production.

Village and Cottage Industrial Co-operatives.

The village artisan or worker is too backward and poor to stand on his own legs, to carry on his production unaided and to market his products at favourable prices. For lack of organisation he is at present obliged to depend on rapacious money-lenders and middlemen traders who exploit them to the utmost with the result the artisans and workers get deeper and deeper into debts. It is an impossible task to assist individually the innumerable village artisans and unemployed rural workers except through a proper organisation which will ensure regular work for them, supply of raw materials needed for their industry at reasonable prices, technical advice and guidance, a ready sale for their products at good prices and enough return for their labour. An industrial co-operative where the actual workers are shareholders and where they would be enabled to reap the full benefits of their labour, and facilities for economic production and advantageous marketing could be provided, is the only organisation that can deliver the goods. It eliminates the middleman and the capitalist and is a positive step towards the attainment of socialistic society which is the declared objective of the Second Five-Year Plan. The industrial co-operative gives the worker the feeling of ownership in the industry and of reaping the full benefits of his work, which enthruses him to put forth his best. Therefore, the development of the village and cottage industries is attempted through the formation of industrial co-operatives. In the first place, the workers and

artisans are given share capital loans for becoming members of industrial co-operatives. These societies are given loans towards working capital and grants towards Reserve Fund to increase their borrowing power, subsidies for meeting the establishment charges, exemption from levy of sales tax for their products, and rebate on sales or production in respect of ghani oil, pottery and handpounding of rice. Financial assistance is also given for the purchase of site, construction of workshops, opening of sales depots for participating in exhibitions and for other activities intended to promote marketing of their products. Adoption of improved technique in methods of production and the introduction of improved equipment are of paramount importance for the economic survival of village and cottage industries. To make village industries more paying and the work of the artisans less arduous, a newtype of wooden or stone chakkies for paddy husking, improved potters' wheels with ball bearings, single bullock driven oil ghanis with ball bearings, hand-driven centrifugal machines for manufacture of palm or khandasari sugar, improved looms and reeds for mat weaving, and better and more efficient types of charkas for coir industry are supplied to the members of industrial co-operatives at half cost, which is also treated as loan and recovered in easy instalments. Technical guidance and advice are also given to the members by the technical experts periodically. These societies are assisted in the disposal

of their products by giving preference to them in making purchases for Government requirements. During the last year and a half, after the societies came under the control of the Industries Department from the Co-operative Department as many as 150 industrial co-operatives for various village industries like hand-pounding of paddy, village ghani oil, pottery, brick making, soap making, tannery, footwear, and leather goods manufacture, carpentry, metalware industry, match industry, mat weaving, basket making, coir and yarn rope industries, palm products and handicrafts have been formed. The Pattamadai Fine mats, the Tanjore Musical instruments like Veena, Tambura, etc., the Modaiyur stone images, the Mahalipatti ropes, Cuddalore toys are some of the special items for which industrial co-operative societies have been formed on the Handicrafts side. The total number of societies of all types has risen from 138 to 288 with 19,594 members and a paid-up share capital of Rs. 3.36 lakhs. These societies have recorded a production of goods worth Rs. 25 lakhs in 1956-57 as against a production of Rs. 13 lakhs during 1955-56. Industrial co-operative societies solely for the benefit of the Harijans have also been formed with the assistance of the special grants received from the Government of India for the uplift of Scheduled Castes.

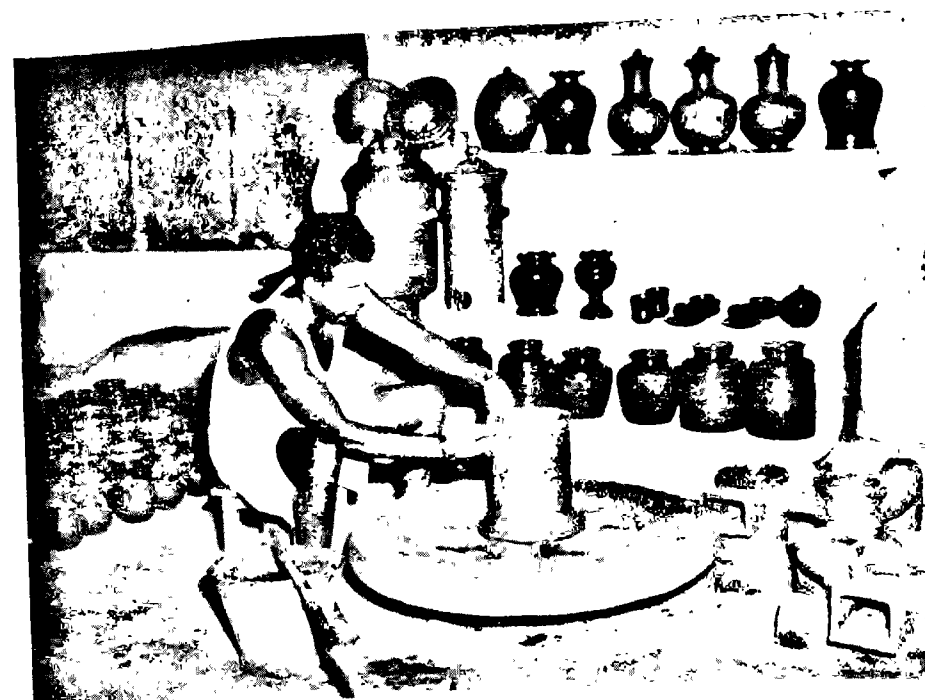
Employment of ex-toddy tappers

The rehabilitation of the ex-toddy tappers thrown out of employment by the introduction of prohibition

Pottery making as a cottage industry receives every encouragement under the Industrial Co-operative Scheme.



Soap making at T. Kallupatti. Soap making is becoming a popular proposition in the countryside also.





Hand-made paper is found more suitable and durable for certain type of printing.

presented a serious problem to the administration. This has been solved by organising palmgur industry through 1,430 industrial co-operatives thereby providing employment to as many as 1.6 lakhs of ex-toddy tappers. These palmgur societies have been making steady progress from year to year and their annual production of jaggery has now risen to 25 lakhs of maunds. With a view to augment their income, every year a large number of tappers are given training in the improved and economical methods of producing jaggery and in the manufacturing of whit sugar and confectionery from jaggery. Improved gur making sets at half cost, confectionery machines and utensils and equipment needed for running the Neera Parlours free of cost are supplied to the societies.

With a view to assist the ex-toddy tappers to get a good price for their jaggery, four marketing federations have been formed in the chief palm-growing districts of Tirunelveli, Ramanathapuram, Salem and Coimbatore.

To further assist these organisations in co-ordinating their activities and in arranging for marketing of jaggery outside the State and the country, a State Marketing Federation has recently been formed.

The problem of village and cottage industries is essentially the problem of marketing. All the assistance given by Government to these village and cottage industrial co-operatives will not, by themselves, be sufficient to foster and sustain them. The future of the millions engaged in these village and cottage industries will depend to a very large extent on the public patronising their products.

Handicrafts.

The handicrafts of South India are known all over the world for their perfection of form, colour, harmony, balance, and rhythm and above all for their maturity and refinement of expression. They flowered and thrived as the material expression of a remarkable culture which valued and

fostered the fullest and highest development of man's individual personality. A great cultural tradition going back to the very dawn of History when the drama of human life itself began to be first unfolded and rich in music and dance and poetry, philosophy and religion inspired the craftsmen to compose exquisite poems in stone and metal expressing some of the noblest and finest thoughts the mind and the spirit of man could conceive. The craftsman was essentially an artist; the cloth he wove, the image he chiselled, the pottery he moulded were created out of the joy of giving shape and form to dreams and inspirations.

The advent of the machine age and the influence of the values of the new industrial society ushered in new and powerful forces the impact of which was devastating in its effect on handicrafts. The emphasis shifted from cultural to material values, from beauty to utility, from authenticity of form and durability to cheap imitation and greater variety. Many of the craftsmen went to

the wall unable to meet the unequal competition with the machine. The loud machine stilled his small voice. A few craftsmen, however, managed to keep up the tradition in their own humble way in the remote corners of the country, working in dark hovels with modest and unostentatious tools producing against heavy odds the cultural treasures otherwise known as handicrafts.

Sentiments of traditionalism alone cannot carry us far, any more than exhortations and revivalistic incantations can, in rehabilitating our handicrafts. Although the esoteric nature of Indian handicrafts is one of their main attractions, nevertheless, customers increasingly demand adherence to some aesthetic standards which many of our present day craftsmen seem to ignore. We have very highly developed traditional forms which are excellent from the aesthetic point of view and are also of utility value. There are also handicrafts which are aesthetically quite good but nevertheless do not sell in the modern market as they do not fit into modern usages. They have to be redesigned to be made usable adapting them to modern needs and conditions without destroying their basic charm and essential spirit. Till recently the craftsmen have had hardly any guidance in this direction. Many of them are not aware of the trends in design and are very often completely lost. Proper guidance and assistance in this vital field is therefore of tremendous importance.

Easy credit facilities

The modern demand is for beauty as a supplement to usefulness and at a price which the common man could afford. Hence if our handicrafts are to occupy a permanent and important place in the future of the country a radical improvement has to be immediately effected in every aspect of production like material utilization, tools and technique employed, designing, finishing, etc., so as to produce newer and better articles at cheaper and competitive prices. Then there are also the other basic problems like providing easy credit, arranging for efficient marketing service and most important of all creating a suitable organisation of the craftsmen through whom the various developmental measures to promote handicrafts could be channelized and made effective. Realising as they do these complex

problems facing handicrafts the Government are taking vigorous steps through the establishment of several training, service, design, research and production centres for tackling them and for promoting the proper development of handicrafts. A net-work of emporia and procurement-cum-sales depots for providing efficient marketing service is also being established. The provisions of the State aid to Industries Act have been liberalized with a view to provide credit on easy terms to the craftsmen. A sum of Rs. 55.5 lakhs has been provided in the Second Five-Year Plan for the development of handicrafts in this State. So far forty-one schemes costing Rs. 25.62 lakhs have been sanctioned for the promotion of handicrafts covering a wide range from sculpture and art metal work to toys and embroidery.

Sculpture has always occupied pride of place in the arts and crafts of South India. Patronised by Kings, encouraged by an enlightened community and inspired by faith in a living religion our ancient sculptures have produced marvels unsurpassed for their beauty and delicacy. Lack of patronage during the recent years by an unsympathetic foreign rule, has adversely affected this craft and the majority of the workers have deteriorated into ordinary stone breakers and dressers. With a view to reviving this ancient art craft and providing trained workers for renovation of temples, etc., a Training Centre has been established at Mahabalipuram. Ten candidates are undergoing intensive training in the principles and practice of sculpture in accordance with the formulæ and regulations contained in our ancient literature. Experienced Sthapathis versed in Shilpa sashtra are in charge of the training programme.

The allied craft of art metal work has comparatively speaking, not suffered so badly. But still it has lost much of the skill and beauty that characterised the work of ancient masters. The processes of casting, polishing, etc., adopted at even chief centres like Swamimalai are crude and out of date resulting in poor quality and considerable waste. With a view to develop the industry on proper lines and provide servicing facilities like improved casting, better finishing, etc., as also guide the artisans in the selection and use of good designs, a training-cum-service centre

has been started at Swamimalai. Twenty candidates are undergoing specialized training here in the art and science of art metal work. A similar centre has been established at Nachiarkoil for Bell-metal work.

Musical instruments

Manufacture of musical instruments, particularly Veena, has been a speciality of Tanjore handicraftsmen. A co-operative society for the manufacture of musical instruments is functioning at Tanjore. A few independent craftsmen are also manufacturing these instruments at Tanjore, Narasingampettai, Kovilpatti and Madras. With a view to organise and develop the industry on scientific lines a Training Centre for the manufacture of various concert instruments including musical instruments used in temple rituals has been started at Madras by the All-India Handicrafts Board.

Art pottery of a very high standard was being produced in South India. Some of the pottery found in the ancient cairns and cromlechs are of excellent shape and finish and far excel any of the same class made in India to-day. Articles were being made in a variety of attractive shapes and incised with charming linear patterns. This kind of pottery has now become a lost art. But at Karigiri in North Arcot district several kinds of vases and other articles with a pretty green glaze are being made for the last few decades. The glazed pottery of Karigiri are admired, for their grace of line and dignified hues and have won appreciation at the Wembley Exhibition and at various continental exhibitions. A comprehensive scheme for the development of this industry has been taken up. The potters of Karigiri have been assisted to organise themselves into a co-operative society. A modern kiln facilitating greater control of firing operations and providing higher and more uniform distribution of temperature with low operating cost has been constructed at Government cost for the common use of the potters. The free services of a kiln operative have also been sanctioned. A research centre for studying the various problems facing the industry has been set up at Gudur. The Centre has started on a systematic study of the clay and glazes used by the potters and have already standardised a suitable body. It is much stronger, more vetrified and less porous and is a great improvement

on the type of low fired porous body that is being used by the potters. Different coloured glazes like deep yellow, blue, chocolate, green and black, have been tested and standardized. Several new items like ash trays, jars, vases, toys, etc., in pleasing shapes have also been designed. Schemes for the development of glazed pottery industry at Manamadurai-Vridhachalam places are under consideration of Government.

The hand woven and hand printed textiles of South India have been famous from time immemorial for their wispy delicate texture, their vibrant yet subtle blending of colour and their endless variety of designs. Yet there is considerable scope for further improvement in the adoption of ancient art forms and symbols, redesigning them for modern requirements as summer dresses, beach costumes and skirts, curtains, bedspreads, etc. A Pilot Centre to revive and popularize ancient traditional designs has been started at Kancheepuram. A laboratory for the standardization of vegetable

dyes and dye processes with a view to revive the use of the soft and mellow traditional Indian shades in the place of the harsh cold chemical dyes that have replaced them has been established by the All-India Handicrafts Board at Kalakshetra. A Training-cum-Service Centre for hand printing of textiles and mats has also been started by the Industries Department at Rajapalayam. The opening of a few more centres including one for tie and dye is under the consideration of Government.

Drugget Industry

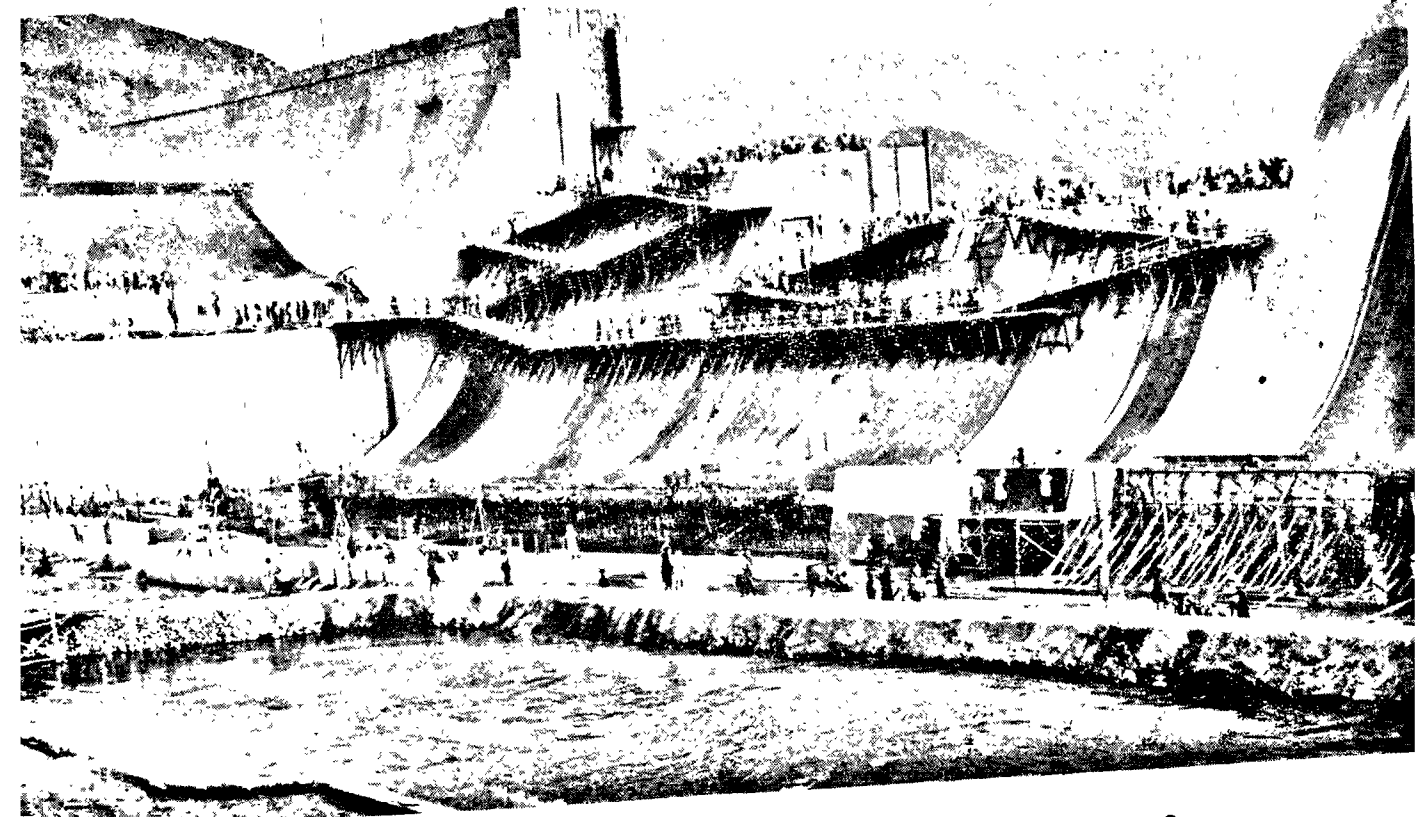
Closely allied to the cotton fabrics industry is the woollen carpet or drugget industry. In normal years about 600,000 sq.yds of druggets valued at Rs. 30 lakhs are being exported from South India. The charm of the druggets lies in the pleasing colours and attractive designs used. Though various colours are used, the ones most popular are the soft creamy white, light green, cool low blue, pleasing orange, bright rose and the full

Indian red. The beauty of these colours is greatly enhanced by judicious use of oriental floral patterns. The industry has of late been facing a critical situation due mainly to the scarcity and high cost of wool and sharp trade practices. To meet the above situation and to improve and control quality, a scheme for the establishment of a wool processing centre at Vinnamangalam for the supply of standard processed wool at reasonable prices to the drugget weavers has been sanctioned at a cost of Rs. 13.20 lakhs. The building of the factory is under construction and it is expected to go into production shortly. Steps to control quality by prescribing standards and banning exports that do not conform to specifications have also been taken up. Suitable legislative measures for controlling production and supply of wool is also under consideration. A Centre for training in improved methods of druggets weaving and in the use of more characteristic and pleasing Indian designs has been

(Continued on page 22)



Cutting bangles from chanks calls for considerable skill.



Amaravathi Nearing Completion

18,000 Acres to Get Assured Water-Supply

Udumalpet and Dharapuram taluk Coimbatore District will no more depend on the vagaries of monsoon. The Rs. 300 crore Amaravathi project designed to give assured water supply to these two taluks is nearing completion and the main canal of the project is to be opened for irrigation shortly. The Canal Works are also most complete.

The 39-mile canal will irrigate 1,823 acres in 18 villages—14 in Udumalpet Taluk and 4 in Dharapuram Taluk—of Coimbatore District.

Only irrigated dry crops are to be grown in the area. But sugarcane will be permitted to be raised over an extent not exceeding 2,000 acres in the area that may be localized for this purpose. The villages to receive the Amaravathi waters are Andigoundanur, Elayamathur, Komaralingam West, Komaralingam East, Agraharakannadi, Puthur, Sarkar, Kannadiputhur, Pappankulam, Maivadi Zamin, Vedapatti Zamin, Solamalevi, Jothampatti Zamin, Thungavi, Metrathi Zamin, Karatholuvu, Ponnapuram, Chinnakkappalayam, Puthur and Dalavaipatnam.

The Dharapuram and Udumalpet taluks of Coimbatore district have been frequently ravaged by famine as a result of the continuous failure of monsoons. In the past, the Government have met the terrors of famine by starting relief works and on this account not less than Rs. 20 lakhs were spent in 1939. The Government therefore decided to plan an irrigation project in this area and the Amaravathi Project was inaugurated in December 1953.

The river Amaravathi, which rises in the Western Ghats, is a major tributary

(Continued on page 22)



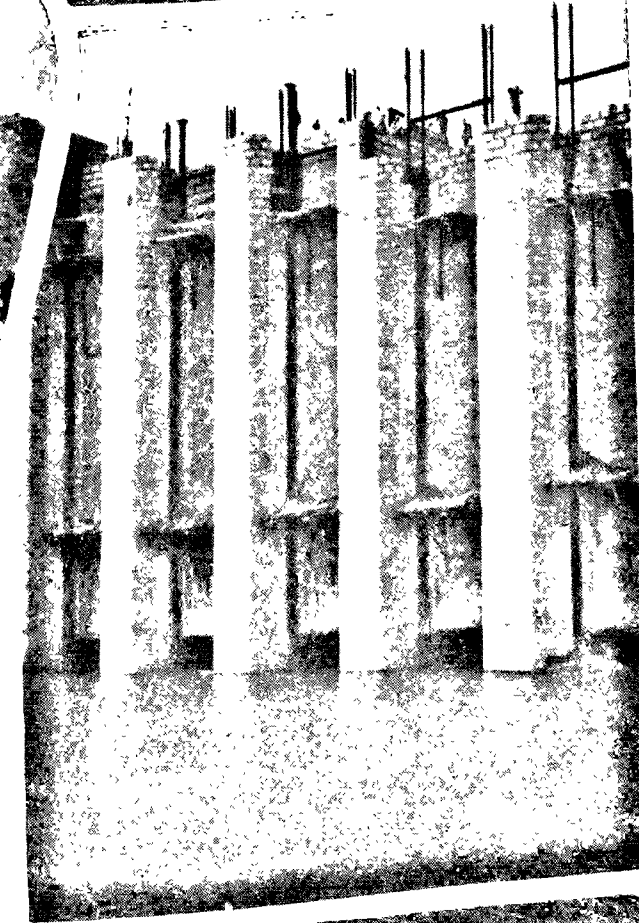
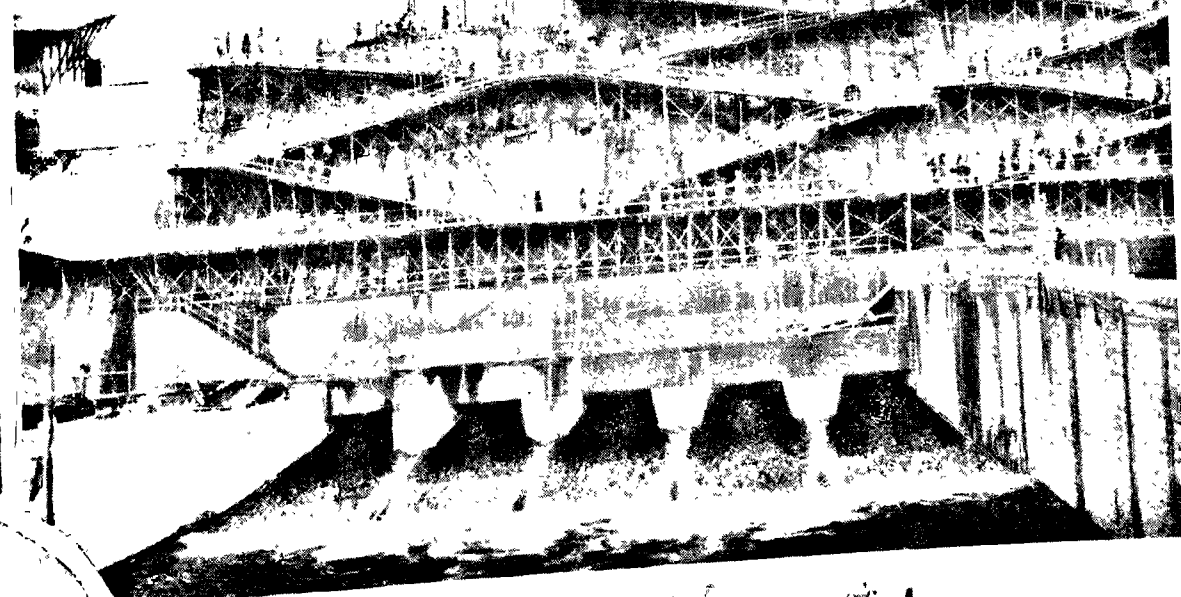
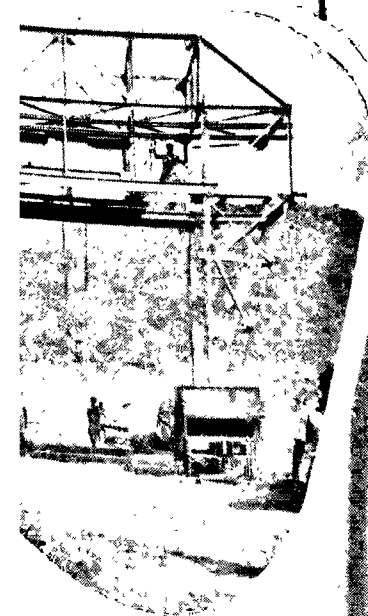
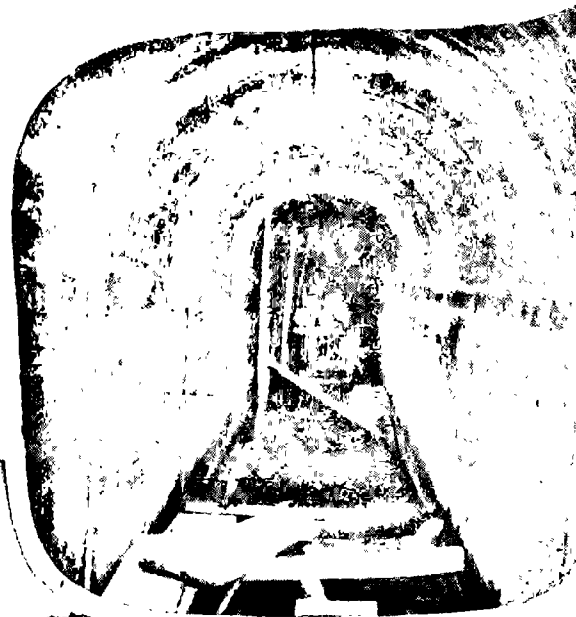
Amaravathi . . .

These pictures show the progress made in putting Amaravathi Project on the map of Madras State. This three crore rupees Project is nearing completion and waters will be let out for cultivation shortly.

A panoramic view of the earthen dam on the left side, mudworks of a canal under construction and the left main canal are given in the top strip.

A beautiful garden springing in the foreground of the earthen dam and the sons and daughters of the soil toiling day and night to put finishing touches to the Reservoir are seen in the bottom strip.

Sluices under construction and a diversion canal are shown in the centre. The insets give an idea of the seepage tunnel (inspection gallery) and the giant crane employed.





Impressive Achievement in **Housing the Harijans**

By Sri A. SOMASUNDARAM, Assistant Secretary to Government, Industries, Labour and Co-operation.

Next in importance to food is shelter for any human being and the one community which awfully lacks this basic need are the Harijans of the State. Accustomed to live for centuries practically under serfdom, the Harijans have not thought of owning anything for themselves. They lived huddled together in hovel-like shelters that had been made available to them by their landlords. Consequently they were always under power of coercion by the landlords which had been at times ruthlessly exercised. It had therefore become the endeavour of the Government to provide free of cost house-sites to the Harijans.

Government lands if available, are transferred to "Village Site" and assigned in plots to those who need

them. But as suitable Government vacant lands are limited in extent, the Government have often to acquire large extent of private lands under the Land Acquisition Act by paying compensation.

House-sites free of cost.

Prior to 1938, the Government were granting loans recoverable in easy instalments to the Harijans for the purchase of house-sites acquired on their behalf. Since 1938 the Government have been showing special concessions by bearing the entire cost of the land required for communal and common purposes and half the cost of land covered by house-sites to the Harijans subject to the maximum of Rs. 150 per acre in the case of dry

lands and Rs. 350 per acre in the case of wet lands. Since 1949, the Government have liberalised these concessions. House-sites are now given free of cost to all Harijans who do not own any, except in cases where they can afford to pay the cost. Each family is ordinarily assigned an extent of 3 cents in wet areas and 5 cents in dry areas. This extent is exclusive of the land required for the provision of common places like streets, pathways, etc., for which, as in the past, the Government bear the full cost. Till July 1958, the scheme for acquisition of house-sites for the Harijans was in operation only in rural areas. Subsequently the scheme was extended to Class I Panchayats. The Government have since decided to extend the

scheme to municipal areas as well with a view mainly to remove insanitary pockets of Harijan colonies in the urban areas.

Where the Harijans have occupied Government poramboke lands by construction of houses, such lands are assigned to them if they are not objectionable. Even when the occupation is objectionable, eviction of the Harijan occupants is usually deferred until alternative sites are provided for them.

Seventy thousand sites assigned.

The Government have assigned up to end of 1956-57 from lands at their disposal about 70,000 house-sites. They have acquired private lands for providing about 80,000 house-sites up to end of 1956-57 at an estimated cost of about Rs. 58 lakhs.

The mere provision of house-sites did not solve the problem of 'Housing' for Harijans. They had no sufficient resources to put up decent houses of their own, with the result that most of the house-sites so assigned were either left vacant or ill-ventilated and shabbily thatched huts were put up in those sites. The State and the Union Governments seriously thought of providing houses for the Harijans, when the Planning Commission drew up the Second Five-Year Plan. Under the State Sector, out of a total provision of Rs. 497.81 lakhs made by the Planning Commission for Schemes relating to the 'Amelioration of the Backward Classes' for this State, a sum of Rs. 75.45 lakhs has been set apart for the Housing Schemes for Harijans for the entire Plan period on a phased programme at the rate of Rs. 15.09 lakhs per year. The expenditure is shared equally by the State and the Union Governments. In 1956-57, a sum of Rs. 13.35 lakhs was spent towards construction of 2,513 houses. The Government have approved a type design to be followed generally for putting up houses under the scheme with such modifications as may be found necessary to suit local conditions. The cost of construction of each house is estimated at Rs. 750 of which the Government give a free grant of Rs. 550 by way of materials and the balance of Rs. 200 is met by the beneficiaries by way of free labour, etc. The cost of construction has however been increased in the Nilgiris district due to special climatic and physical features

of the Government subsidy of Rs. 700 and labour charges costing Rs. 300 met by the beneficiaries. In cases where the beneficiaries are too poor to contribute free labour, the Government give interest-free loan repayable in easy instalments to meet the cost of labour. In order to prevent the houses from being passed on by the beneficiaries to persons for whom they are not intended, an agreement is got executed by the Government from every grantee against such alienation.

Grant-in-aid schemes.

Under the Central Sector of the Second Five-Year Plan, the Government of India have volunteered to sponsor 'Housing' schemes for the benefit of the Harijans to the tune of Rs. 15 lakhs for the Plan period and have agreed to meet the entire cost. During 1956-57, a sum of Rs. 2.24 lakhs was spent for the construction of 378 houses. The pattern of assistance given to the beneficiaries and the type design adopted for the scheme under the Central Sector are more or less the same as those adopted for the grant-in-aid schemes of the State sector. The Government have programmed to construct 615 houses at a total cost of Rs. 3.38 lakhs during 1957-58.

Harijan colonies for purposes of construction of houses will ordinarily

be selected so as to have a minimum of 20 houses and a maximum of 30 houses where there is combination of other Backward Classes and caste Hindus who have come forward to take up residence along with the Harijans.

During the Second Five-Year Plan period, the provision of houses for Scheduled Tribes has also been receiving the increased attention of the Government. Under the State Sector of the Second Five-Year Plan, a ceiling of Rs. 5.53 lakhs has been provided for construction of houses for Scheduled Tribes. During 1956-57, 89 houses were constructed in Coimbatore District and about 16 houses in the Nilgiris District at a total cost of about Rs. 61,977. The cost of each house has been estimated at Rs. 900 of which the Government give a free grant of Rs. 600 by way of materials, etc., and the balance of Rs. 300 is met by the beneficiaries by way of free labour. In the case of Scheduled Tribes also, the Government have agreed to provide interest-free loans repayable in easy monthly instalments towards the cost of free labour to be contributed by the beneficiaries.

During 1957-58 the Government have proposed to construct 46 houses in Coimbatore district and 48 houses in the Nilgiris district for the benefit of Scheduled Tribes. In addition, it



Subramaniam Nagar in Salem before improvement. Now new brick and mortar houses have replaced these huts and the colony as it looks today is shown at the top of the previous page.

has been proposed to construct 94 houses for the hill-tribes in Salem, Chingleput, Madurai, Tirunelveli, North Arcot, South Arcot and Ramanathapuram Districts recently notified as 'Scheduled Tribes' at an estimated cost of Rs. 51,000.

For Scheduled Tribes.

Under the Central Sector of the Plan, a total ceiling of Rs. 10 lakhs has been fixed for construction of houses for the Scheduled Tribes. Although no houses could be constructed during 1956-57 from this allotment, the State Government have programmed to construct during 1957-58, 464 houses at a total estimated cost of Rs. 2,78,400 on the same lines as are applicable to the housing scheme of the State Sector in the Districts of the Nilgiris, Tiruchirappalli, Coimbatore and Kanyakumari.

Provision of houses to the Ex-Criminal Tribes also has been made in the Second Five-Year Plan under the State Sector. A ceiling of Rs. 6 lakhs has been provided for the entire Plan period. During 1956-57, 152 houses were constructed at a total cost of Rs. 70,900. The cost of each house is estimated at about Rs. 500 and the entire amount is given as subsidy to the beneficiaries. During 1957-58 it has been proposed to construct 152 houses at an estimated cost of Rs. 70,000.

Under the Central Sector, the Government of India have fixed a ceiling of Rs. 10 lakhs for the entire Plan period for providing houses for the Ex-Criminal Tribes. During 1956-57, a sum of Rs. 2.09 lakhs was spent in the construction of 501 houses. In some places improved types of houses were constructed under this Scheme. It has been proposed to spend Rs. 2.50 lakhs during 1957-58, towards the construction of 477 houses adopting different type design to suit the local conditions.

In addition, there is a general scheme obtaining in the C. D. and N. E. S. areas for grant of loans towards the construction or improvement of houses to deserving individuals which will essentially benefit the Harijans and other backward people in the rural parts. The maximum amount of loan that will be available for construction of or improvement to a temporary house (one with thatched roof) is

Rs. 250 and in the case of semi-permanent or permanent house, the maximum limit has been enhanced to Rs. 750 per house.

It will therefore be seen that both the State and the Union Governments are making rapid strides in their efforts to provide house-sites and houses for the Harijans and the day will not be far off when the Government would have claimed that each Harijan family is living in a house of its own.

(Continued from page 18)

started at Kolakudi. Another unit using sun-hemp fibre in the place of wool in view of its cheapness and better qualities like easy washability, greater durability, etc. has been established at Gopalasamudram in Tirunelveli district.

There are a number of other minor handicrafts like Pith work, Palm leaf products, Bamboo and Rattan work, Palmyra stem work, Aloe fibre products, Korai mats and fancy products, Lace and embroidery, fancy leather goods, toys of clay, wood, and cloth, paper machine work, etc., for which Madras is famous. A number of departmental Centres have been opened at Thiruthuraiipoondi, Manapad, Chittarkottai, Pallapatti, Mathur, Madurai, Wallajabad, Nazareth, Manamadurai, Neduvayal, Tirunelveli, Palayamkottai, Gobichettipalayam, Pallavaram, Erode, Tanjore and Cuddalore for the promotion of these handicrafts.

A Central Emporium for the sale of Handicraft products has been started at Madras. The Victoria Technical Institute which has been doing excellent work in this field has been sanctioned a loan of Rs. 2 lakhs to expand and further develop its business. Regional museums for the display and popularisation of the handicrafts of the region are functioning at Tiruchirappalli and Coimbatore. A Handicrafts Emporium at Madurai similar to the one at Madras will be started shortly. Government are also contemplating opening during the next twelve months procurement-cum-sales depots at Tirunelveli, Tanjore, Coimbatore, Salem, Chidambaram and Rameswaram. But the survival and development of our handicrafts depend on the patronage extended by the people of our land and the tourists from other lands.

(Continued from page 17)

of the Cauvery. There are 17 anicuts in the river and 25 irrigation channels irrigating about 33,000 acres of different classes of land. The project consists of a storage reservoir across the river near the foot of the Western ghats. The river drains an area of 324 square miles at the site. The dam will be about 3,715 feet long. The scheme involves the construction of a reservoir of 3,600 million cubic feet of water across the Amaravathi River and the construction of a canal for 40 miles to irrigate 15,000 acres in normal season. The existing ayacut of 32,000 acres will also be assisted during periods of scarcity. The total estimated cost of the scheme is Rs. 297 lakhs, of which Rs. 146.69 lakhs will be spent during the Second Plan period. The masonry and earth dams are in advanced stages of construction. Ninety-five per cent of the excavation of the main canal has been completed and 90 per cent of the work on the cross masonry has been completed. In addition, 20 out of the 43 direct sluices and the first seven distributaries are in progress. The project is expected to be opened very shortly and water will be let down for irrigating an area of 10,000 to 15,000 acres. It is under consideration to provide irrigation facilities for 3,000 acres of sugarcane and 18,000 acres of dry crops in place of the original 15,000 acres (50 per cent wet and 50 per cent dry) and the branches and distributaries are designed to this purpose.

The State Transport Department in Madras City earned by way of fares Rs. 12,93,960 during June 1957 with a fleet strength of 450 buses, and running a total mileage of 1,116,090 miles carrying 10,906,173 passengers. The average number of buses on the road was 297.

In Kanyakumari district the State Transport collected Rs. 2,00,761 by fares with a fleet strength of 76 buses, of which an average number of 52 buses were on the road.

Cobalt Beam Treatment for Cancer

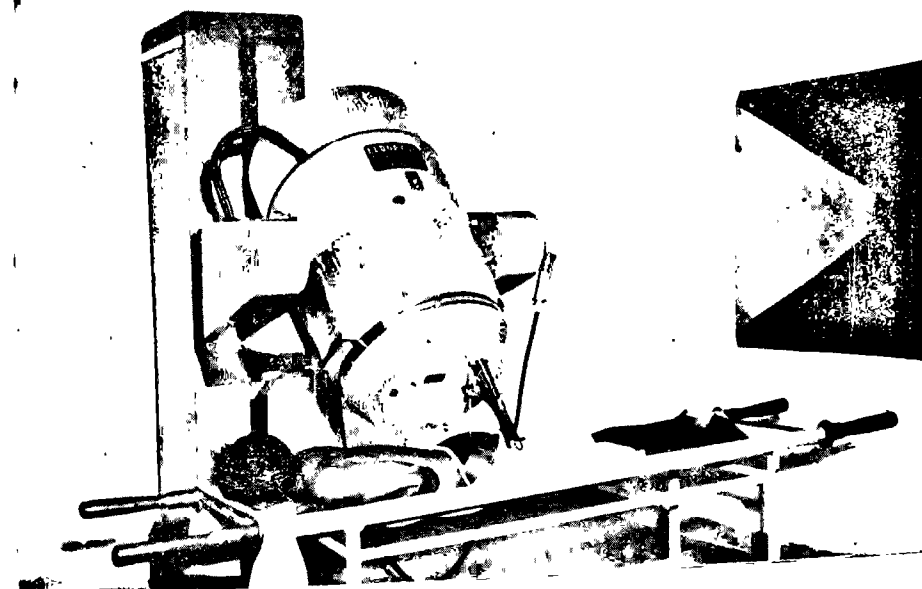
New Plant Installed in Adyar Institute

One of the most important applications of Atomic Energy in medicine was pressed into the service of suffering humanity with the installation of the Cobalt-60 beam therapy unit at the Cancer Institute, Adyar, on September 5, 1957. This "Cobalt Bomb" of the medical profession is about 200 times as powerful as the "radium-bomb" and has many hundred times the power of ordinary X-rays. Costing Rs. 4 lakhs, the Eldorado Tele-Cobalt Plant is the first of its kind to be installed in Asia, and part of the cost has been met by the Atomic Energy Commission of Canada as a gift and the remainder has been contributed by the Central Government. This will usher in a new atomic era in the treatment of malignant disease and puts in the hands of the medical profession, a powerful weapon of immense potentialities in the fight against Cancer. In the West, it has already made possible the successful treatment of many deep seated Cancers hitherto considered difficult, without the least disturbance to the patient's general health.

The building to house this powerful radio active machine has been specially designed with 18 inch thick concrete walls with many safety devices to

ensure absolute protection to workers. The cost of the building alone works out to Rs. 35,000 and this is a gift to the Institute from Messrs. Satyanarayana Brothers, Raghava and Veera, Engineering Contractors. The Cancer Institute run by the Women's Indian Association is one of the finest hospital and research centre for Cancer in India and with the addition of this Cobalt equipment, it assumes a pre-eminent position in its field in the whole of Asia.

The Institute fulfils a long felt need in South India. The Sir Joseph Bore Committee in their Health Survey Report as far back as 1946 emphasised the very great need for such an institution as this in South India. But no step in this direction was taken by anyone till the Women's Indian Association in 1949 came forward to undertake this gigantic task. Between 1955 and 1957, in the short span of two years the Women's Indian Association (Cancer Relief Fund) with the aid of Central and State Governmental grants have built up this Institution into one of the finest hospitals and Research Centres in India.



The 18" thick concrete walled building specially designed to house powerful radio active machine.



Fifty Years of Fruitful Research

Golden Jubilee of Agricultural College

Fifty years mark an important milestone in the history of any institution. In the case of the Agricultural College at Coimbatore, the occasion is indeed more significant and memorable, because it is one of the oldest Institutions of its kind in India with a record of service and achievements which can be legitimately claimed as second to none in the country.

That agriculture has been accepted as the foundation of all prosperity is apparent in the context of the prime place given it in our National Plans. It stands to the credit of our former rulers that even as early as 1876, they



At the Research Institute in Coimbatore, experiments are conducted on sugarcane to increase their yield and juice content.

recognised the need for agricultural education and research and established an Agricultural School at Saidapet near Madras, which was the modest predecessor of Coimbatore Agricultural College. That school was the earliest to be started in this country.

It was soon found to be quite inadequate and was consequently closed in 1907 in which year the Agricultural College at Coimbatore came into being. But it was not until 1922 that this College was formally affiliated to the Madras University. From that year, the College has grown from strength to strength. The number of students admitted in a year which was only 20 in 1908 is now 162 for the B.Sc. Degree Course alone.

The students of this College have always been lucky in that right from the beginning, there has been within the same campus an agricultural research institute. Thus research and instruction have always marched hand-in-hand. Further, the training imparted to the students is not merely academic but is also eminently practical. The three-year course leading to the degree of B.Sc. (Agri.) includes a six monthly period of practical farm training in a recognised Station or Research Farm. Even apart from this six-monthly course, practical work forms a very large and important part of the curriculum. All those who are not prepared to take their full share in ploughing, reaping, weeding and other cultural operations are advised not to apply for admission. The students actually handle animals, plough the land, dig and cart manure, work the mholes, irrigates the fields, raise seedlings and transplant them, harvest the crops, cart and thresh the produce and in fact take part in every farm operation. Thus, this College has been turning out students who are fit to impart better methods of farming to the agriculturists both by example and precept. We can justly claim that this is the very

first Agricultural college in the Country to give due place and weight in the College curriculum to the familiarisation of students with every single farm operation.

The Research Institute.

The Agricultural Research Institute also has done very useful work during the past half a century and has laid firm foundations for development of scientific agriculture in this part of this country. It was in the sugarcane section of this Institute that the work on the development of improved sugarcane strains which became ultimately world famous was carried on till 1924 when the Central Sugarcane Breeding Institute was started at Coimbatore. The Herbarium of the Botany Section of this Institute which celebrated its Centenary three years ago and which this Government have since agreed to transfer to the control of the Botanical Survey of India is reported to be the Second best in India containing as it does 170,000 specimens representing the flora of South India and about 25,000 specimens representing the flora of North India. How much patient work has been done in the direction of improvement of paddy can be inferred from the fact that there is at present the Paddy Section of the Institute a collection of over 2,300 paddy strains. The results of the basic studies in the Millets Section have won recognition from outside the country and it has been recorded in the United States Year Book of Agriculture for 1936 that the contributions to Sorghum breeding made at this Institution are the best most extensive and comprehensive. Let us on this occasion pay our humble and grateful tribute to all those who had laboured unostentatiously but with single-minded devotion and zeal to build up the Agricultural College and Research Institute and bring it to its present level of efficiency, usefulness and renown.

Rs. 38 lakh expansion Scheme.

In order to meet the growing needs of the Agricultural College and Research Institute, the Madras Government have included schemes in the State Second Five-Year Plan for strengthening and upgrading the College and the Institute. The Government have proposed to spend a sum of Rs. 38 lakhs during the Plan period to provide additional accommodation, equipment, staff, etc.

The Golden Jubilee Block of buildings the foundation stone for which the Governor of Mysore laid the foundation is constructed as part of this scheme of development. There is already provision in the Research Institute for obtaining the M.Sc. and Ph.D. degrees of the Madras University by research. A proposal for starting a course leading to the M.Sc. degree by examination is under consideration. In pursuance of a recommendation made by the Joint Indo-American Team on Agricultural Research and Education, a proposal to develop this College into a strong centre for post-graduate teaching in agriculture which will cater to the needs of students not only in this State, but also in all the other States of the southern region is also under consideration.

There is nothing like *Status Quo* in agriculture or agricultural research. With the popularisation of strains of high yielding crops there is bound to be a greater drain on the fertility of the soil. Deficiencies of several food elements in the soil are also likely to result. The optimum dosage of each fertiliser or nutrient element requires to be determined, crop quality has to be maintained or improved upon, consumer preferences have to be kept in view and newer methods of fighting crop pests and diseases have to be devised. Though much has been achieved in the past fifty years, there is yet therefore, much more to be done in the future. This Research Institute with its attached Agricultural College has contributed its share towards the agricultural prosperity of the State and the region and it is not an unreasonable hope that the role would be far more significant in the years to come. That the Government at the centre and the States are fully alive to the situation is evident from the provision of thirty eight lakhs made in Second Five-Year Plan for additional buildings and equipments and the proposals that are now under active consideration to expand the activities of the Institute in all directions.

Chemistry in aid of Agriculture.

The Chemistry section has devoted considerable attention on soil surveys of the deltaic tracts of Tanjore, Godavari, Krishna and Guntur and other paddy growing tracts such as Malabar and South Kanara to assess the manurial requirements of these tracts. Soil surveys in connection with the irrigation projects were also carried out at the instance of the Irrigation department of the Public Works Department, to see the suitability for irrigation or otherwise of the lands proposed to be commanded by the project. The projects surveyed include the Tungabhadra the Cauvery-Mettur and the lower Bhavani.

The possibility of reclaiming alkaline lands under Kattalai high level channel

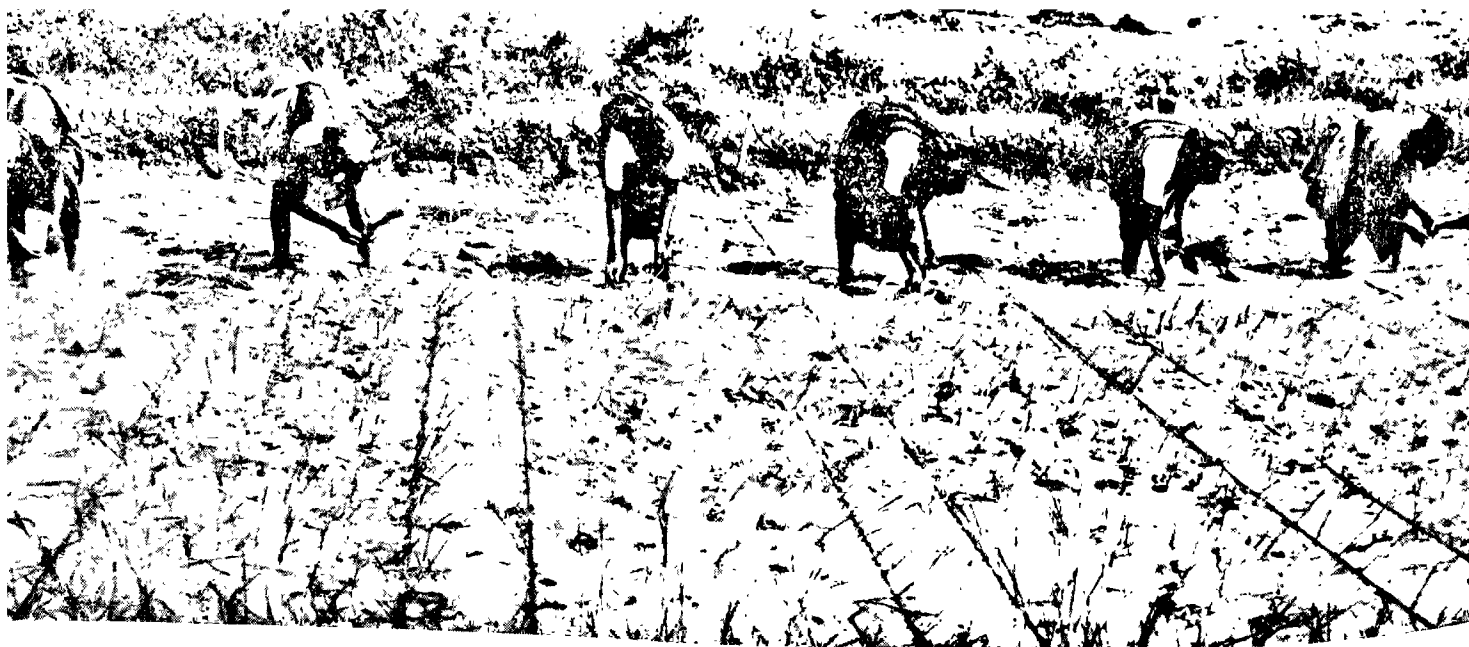
in Tiruchirappalli and in the Cauvery-Mettur project area in Tanjore district, by the application of locally available ameliorants like gypsum and green manure was practically demonstrated by field trials.

At present the section is carrying out investigations on the use of silico-phosphate, chelates, and soil conditioners, in the soils of the State. Studies to assess the role of soil micro-organisms in relation to soil fertility are also in progress.

A separate soil testing service is now in operation at Coimbatore, for rendering speedy advice to farmers on the fertility status of their soils, their manurial requirements and other matters connected with maintenance of soil fertility for good crop growth.



New strains of sugarcane evolved at Coimbatore are world famous for their juice content and profuse growth.



Rice Research Makes Headway

By Sri A. ABDUL SAMAD, Paddy Specialist.

Rice improvement in Madras started in 1913 with the establishment of the Paddy Breeding Station at Coimbatore. Later on several research centres were instituted to cater to the needs of different soil climatic zones of the State. At present, after the re-organisation of States, rice research is carried on at seven centres, with Coimbatore as the main centre and subcentres at Adu-thurai and Pattukottai in Tanjore District, Tirurkuppam in Chingleput, Ambasamudram in Tirunelveli district, Palur in South Arcot and Paramakudi in Ramanathapuram district.

In the early years, the rice plant was studied in detail for its numerous characters and their mode of inheritance which is of primary importance in any crop-breeding programme. The data collected from these studies formed the basis for further research in this country and elsewhere. Subsequently, selection was taken up in the most important varieties to produce strains with high yield potentials as a result of which 62 high yielding strains were isolated, suitable for the different tracts in Madras. These strains produce 10 to 30 per cent increased yield. GEB. 24, one of the earliest rice strains

evolved by the station, has established a very reputation in this state as well as in some of the neighbouring States.

Work on hybridization to combine different useful characters found in different varieties was started in 1917. This has yielded very useful results and so far ten hybrid rice strains have been produced. The benefit realised from them in terms of the money value of the increased yields is quite a sizable amount. Blast-resistant strains Co. 25, Co. 26 and ADT. 25 are outstanding examples in this line of research and these are highly popular not only in places where blast disease is a menace to successful rice cultivation as in Tanjore district but also in other areas in the State. These strains yield 20 per cent to 60 per cent or more than the local strains depending upon the disease incidence. TKM. 6, a recently evolved hybrid strain from Tirurkuppam, which combines short duration and good quality rice is gaining a good reputation both in the State and outside. It is estimated that the improved paddy strains now cover about 50 per cent of the five million acres of rice in this State, contributing on a modest estimate to an additional production of

2.23 lakhs tons of grain annually, and a monetary benefit to the tune of 6.25 crores of rupees.

Rice agronomy.

The paddy section has been devoting considerable attention to rice agronomy from the early years. Some of the improvements are well known to progressive farmers and are being adopted now with great advantage. Raising a thin seed-bed, using a seed rate of one Madras measure of seed for one cent of nursery (10 M.M. or 251 lb. of seed for transplanting one acre) produces strong and sturdy seedlings which not only produce a good crop with high yield but also result in saving a large quantity of seed. The best spacing between plants is found to be 6" + 6" for long duration varieties and 4" + 4" for short duration varieties, with the number of seedlings per hole as 3 to 4 for early maturing varieties and 2 to 3 for later maturing varieties. However, with the introduction of the Japanese method of rice cultivation in our country, row planting is being adopted more and more using a spacing of 10 inches between rows and 4" to 6" between plants along the row according to the

duration of the variety. Row planting facilitates interculture with rotary intercultivators thereby reducing the cost of weeding by Rs. 2 to Rs. 3 per acre.

The optimum dose of artificial manures over a basal dressing of 5,000 lb. green manure is found to be 150 lb. of superphosphate at the time of planting and 150 lb. of ammonium sulphate as a top-dressing applied 4 to 8 weeks after transplanting or in two doses, one half at planting and the other half a month or two after planting depending on the duration of crop.

The adoption of these improved cultural and manurial practices has enhanced the average yield of rice in the research stations of the State to 3,000 lb. per acre, although the average for the State remains at 1,500 lb. per acre. The advent of the Japanese method of rice cultivation has given an incentive to cultivators to manure the crop with sufficient quantities of organic manures and artificial fertilizers, besides adopting clean cultivation practices.

The area under improved methods of rice cultivation in the State is about



She proudly holds a sheaf of paddy.



The yield from a particular strain of paddy is examined by a specialist at the Paddy Research Station, Coimbatore.

28.9 lakhs acres and the value of the additional production from this area could be fixed at 7.23 crores of rupees on the basis that a minimum of 10 per cent or 200 lb. of increase is secured in the yield of grain per acre.

Organic Manures.

It has been recognized that green leaf is the best organic manure for paddy. The introduction of exotic green-manure plants and shrubs such as *Sesbania speciosa*, *Gliricidia maculata* and *Indigofera teysmanni* and the intensified propagation of these plants have not only increased the production of green manure but also reduced the cost of manuring paddy crops.

Introduction of varieties from other places has also resulted in certain benefits. Saline resistant variety SR. 26-B, introduced from Orissa is found adaptable and suitable to moderate saline and alkaline areas in the State. Short duration Chinese varieties, CH. 41, CH. 62 and CH. 63 which possess stiff straw and non-lodging character are found to do well in the Kar or Sornavari and Navarai seasons and compare well with some of the short duration departmental strains in yield. Over 2,300 types and varieties have been collected and are now being maintained as a germ plasm bank at the Paddy Breeding Station, Coimbatore.

The other breeding problems under investigation are production of high yielding, drought resistant strains for an area of about 3 lakhs of acres grown under rainfed or semi-dry paddy varieties, superior alkali resistant strains for an area of about two lakhs acres of alkaline areas, flood resistant strains for inundate areas to the extent of two lakhs acres in the coastal tracts short term rice possessing seed dormancy which will not germinate in the field before harvest and production of high fertility strains that will respond to heavy manuring by interracial hybridization involving Japonica and Indica varieties. The progress made in these investigations is very encouraging and before long the results are expected to be made available to the cultivators.

Thus it is seen that as a result of the improvement already effected, the country, has benefited, on a modest estimate, to the tune of about 13.48 crores of rupees per year. With the application of the results of research now in progress and the establishment of 360 State seed Farms envisaged in the Second Five Year Plan for rapid multiplication of improved seed to cover at least 85 per cent of the paddy area in the State and thereby attain the target of 40 per cent increased production or about 15 lakhs tons of paddy, the additional income to the farmer could be estimated at well over 40 crores of rupees per year.

Cholam Pops Are Excellent Snacks

By Sri R. VEERASWAMY, Research Assistant.



An ear of Thalavirichan Cholam.

Cereal pops are popular snacks in most parts of the world. Pop-corn in America is almost an institution of the kids and grown-ups alike. The crisp touch of the pops and their sweet impression on the palate, coupled with cheapness and ease of preparation, are probably why pops are as universally agreeable as they are. In our State, corn (maize) pops are not commonly met with, since corn is grown but only in very small isolated patches here and there. But one cannot miss, in the bazaars of most of our towns and major villages, the cut-size bags in which rice pops are offered for sale. Among other pops which are popular in our State, that of cholam ranks next to rice. It is easily prepared over a pre-heated metallic pan, preferably of iron, subjecting the grains to sudden and uniform roasting.

Just as good rice pops cannot be prepared from all varieties of rice, good cholam pops cannot be obtained from all varieties of cholam. The principal dry land varieties of cholam (which are more suited for popping than the irrigated types), in our State are the 'Thalavirichan cholam', the 'Periamanjil cholam' and the 'Irungu cholam' of which the first one alone pops well. Thalavirichan cholam belongs to the botanical group *Sorghum roxburghii*, var. *hians*. It is grown mainly in the districts of North

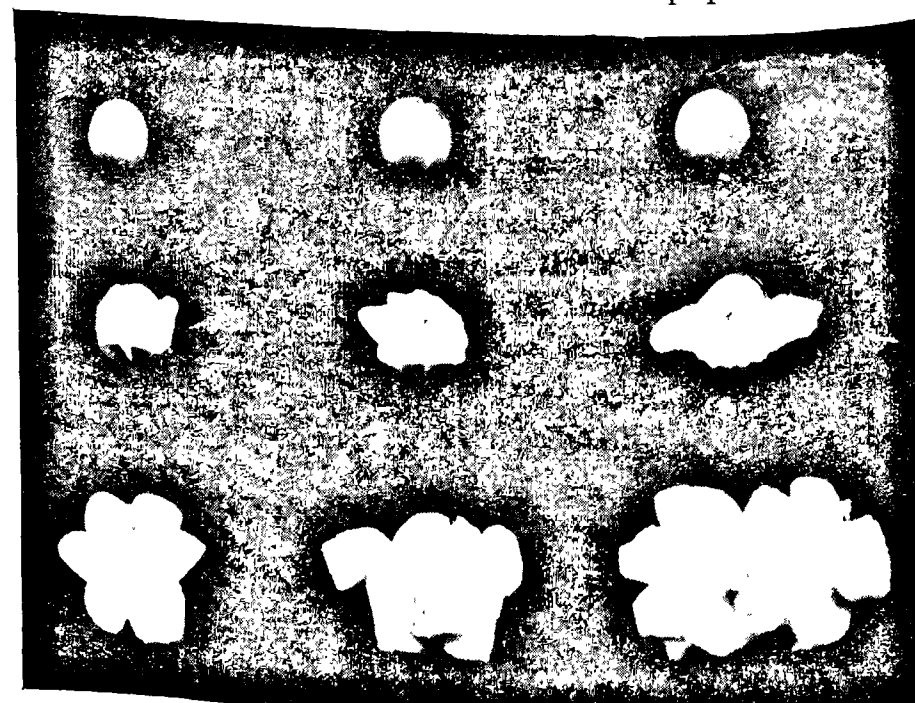
Arcot and Salem, and also in adjoining parts of Chingleput, South Arcot, Tiruchirappalli and Coimbatore.

The reasons why some varieties of cholam pop better than others have been investigated at the Millets Breeding Station, Coimbatore. In general, the grains that pop well are of small size, and in fact, the grains of *Thalavirichan cholam* are the smallest among all the varieties grown in our State. The pre-requisites of a good popping grain is a horny flint-like endosperm, with a thick seed coat. The trial of heat during popping, converts the moisture within the grain expeditiously. The resistance offered by the seed coat is overwhelmed by the pressure inside the grain, which results in the seed coat being rent into bits and the endosperm violently converted as a flour. Obviously, the thicker the seed coat the greater will be the force of the burst, giving a bigger size to the pop. *Thalavirichan cholam* satisfies all these requirements for good popping. It has a horny endosperm, a thick

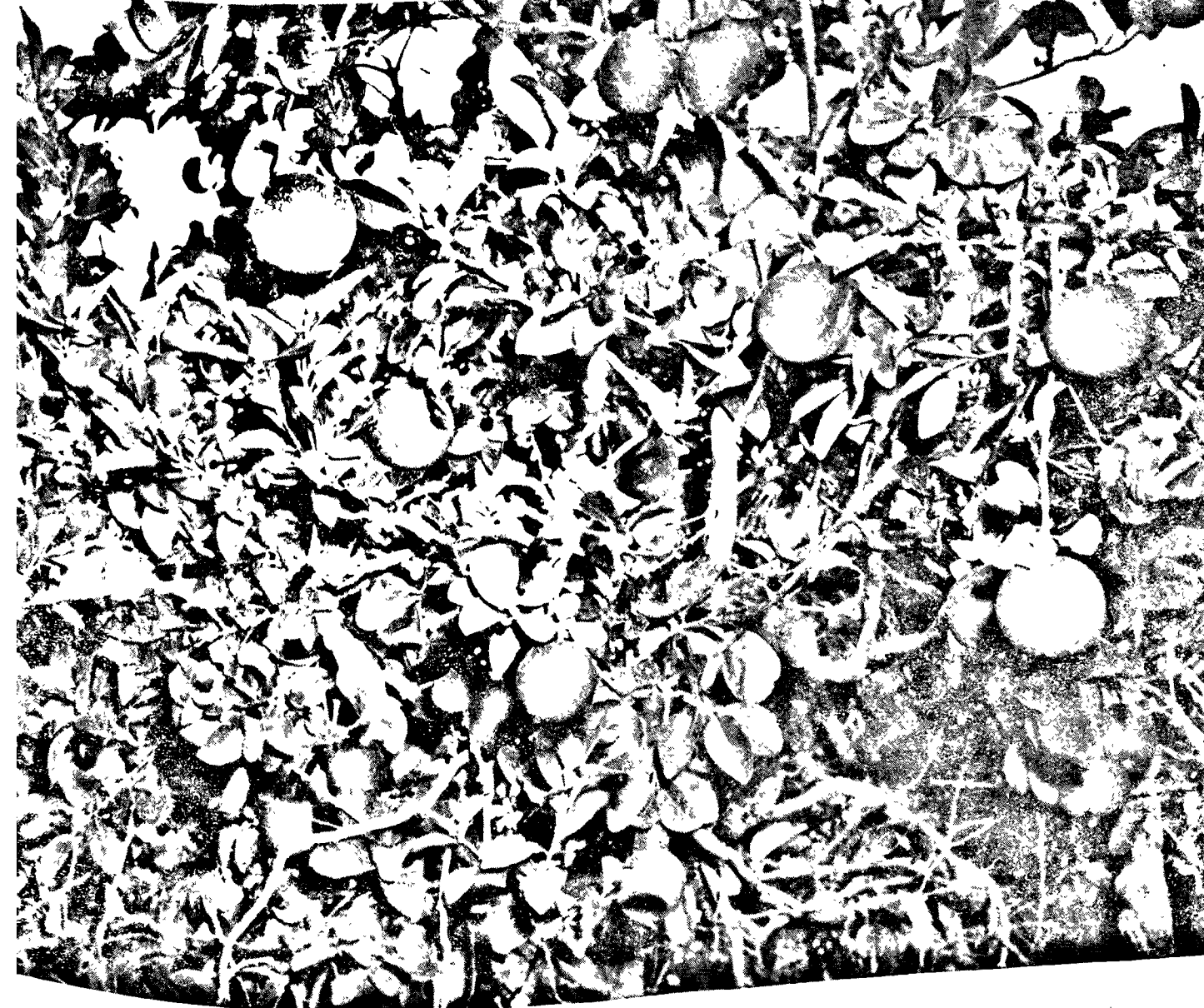
seed coat and a suitable moisture content (10.5 per cent) within the grain.

The process of popping naturally destroys the seed, but curiously enough, the embryo remains practically uninjured except in losing its vitality. The endosperm, which suffers most in this ordeal of fire by undergoing physical distortion, is also practically unaffected in its nutritive value. Chemical analyses, before and after popping of the same variety of grain, have proved this. But there is one extra quality in the pops which is worth the trouble of preparing them, since the heat applied to the grain during popping renders the starches into simpler sugars, improving their digestibility.

Cholam pops can be conveniently prepared in any household. Mixed with jaggery treacle, or with liquid suspensions of brown or white sugar for refinement, pops make excellent eating. Using the grains of *Thalavirichan cholam* strains Co. 3, Co. 19 and TPT. 1 would be found most suitable for the purpose.



Different stages of Popping in Cholam.



Some Recent Introductions of Fruit and Vegetable Crops in Madras

By Sri U. NARASINGA RAO, Professor of Horticulture.

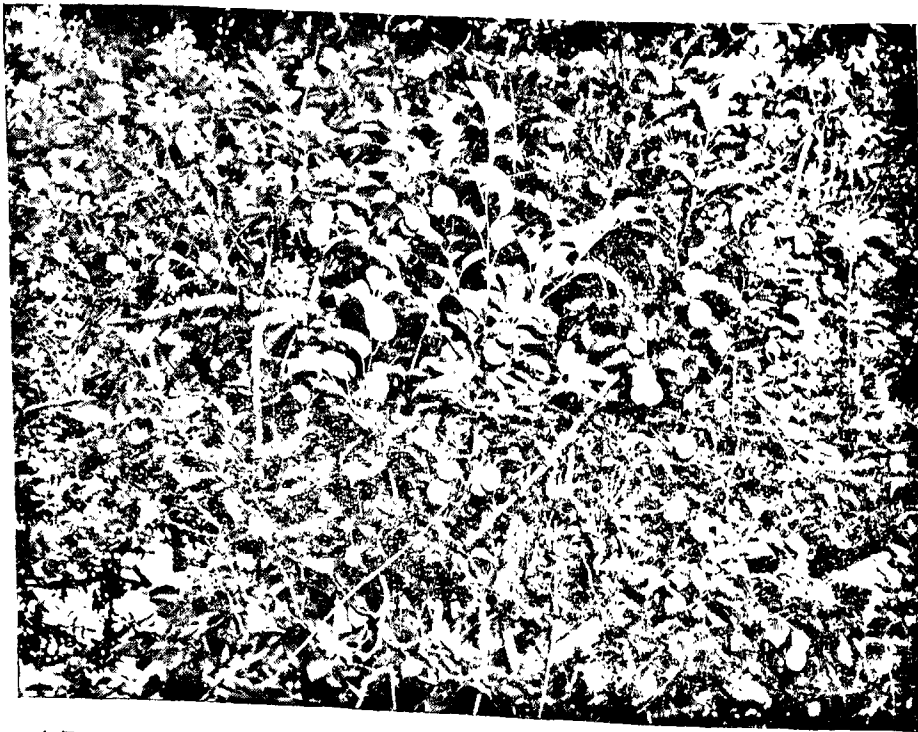
Introduced Plants.

Plant introduction and acclimatisation are two of the greatest aids for agricultural development. The importance and economic significance that the introduced plants have attained in many parts of the world bear ample testimony to the foresight of those who first thought of this method to foster plant industries. The potato in India is a remarkable example of a crop that was unknown in India two centuries ago and has attained now a prominent place in the country's agricultural wealth. In the U.S.A. a most efficient organisation

has been developed to explore diverse regions of the world for newer plants and for their introduction and acclimatisation into that country as a major plank in a nationwide programme for the improvement of agriculture.

Apart from their direct value in enriching the economic plant wealth of the country, the introduced plants offer to the plant breeder, wide range of material in hybridisation work to evolve new forms and types of consumer appeal and value.

Introduction of horticultural plants and their trial in Madras, has been one of the chief items in the horticultural development work of the State for many years now. In fact, two of our Fruit Experiment Stations on the Nilgiris at Kallar and Burliar have served for over 50 years as testing grounds for many valuable plants introduced from other tropical regions of the world. They possess now, perhaps, the richest collection of any



A Berry fruit garden on the slopes of Shevroy hills near Yercaud. The picture in the previous page is that of a Sathukudi garden in the same area.

in this country of introduced horticultural plants. The collection consists of such fruits as the mangosteen, the avocado, the durian, the rambutan, the langsat and other horticultural plants as the cacao, the vanilla, etc. In the past two decades, introductions have been made from other countries as well as from the different States in the Union and have been tested in many of our Experiment Stations. The most outstanding among these introductions have been isolated and plants and seeds of these are being multiplied and distributed to the public, preceded by wide publicity.

The following is an account of the most valued of the introduced kinds and varieties of horticultural crops of recent years:—

Fruits: One of the important commercial fruits of Madras is the grape. A recent introduction from Hyderabad, called "Anab-E-Shahi" has several desirable attributes of a table grape that the erstwhile *Pachadra-ksha* did not possess. It bears heavy, compact bunches, with large berries and a comparatively high sugar content of 14 per cent. The fruits have a tenuous skin and a firm pulp, two features that promote keeping quality. Its cultivation has already been taken up in Madurai district by enterprising

growers. It may be well claimed that this introduced grape variety will add materially to the agricultural prosperity of the State.

Banana from West Indies.

Another major fruit crop of the State is the banana. A recent introduction from West Indies known as Gros Michel has proved to be a superior, desert type with admirable market qualities. Its bunches are cylindrical and uniform and the fruits have a tough skin enabling them to withstand longdistance transport. The flesh is creamy, with pleasing flavour and taste. The variety is cosmopolitan and grows in a wide range of soils and climates. A bunch may weigh up to 80 lb. with 100 to 150 fruits. Its cultivation is becoming popular in several tracts of the State.

Among minor fruits of the plains, the group of fruits belonging to the custard apple family stands enriched by two types introduced from Israel and three varieties introduced from Hyderabad. The former produce large fruits of excellent quality with a relatively small number of seeds. Among the three custard apple varieties from Hyderabad, one produces attractive red coloured fruits, another large, greenish fruits and the third, medium

sized fruits. All the three have produced their first crop within two years of planting yielding fruits of superior taste and quality. These five selections compare very favourably with the types under cultivation now.

The group of fruits known as 'grana-dillas' and commonly termed as passion fruits have not become popular as they deserve. Hitherto the only variety known in Madras was wholly confined to the higher elevations (above 5,000 feet) but a variety known as the yellow passion fruit introduced from Ceylon about seven years ago is found to thrive in different localities in the plains and to produce abundant crops. The vines yield 150 to 200 fruits within a year or two of planting. The fruit is used for making delicious squashes, jellies, ice creams etc.

Among fruits that are adapted to humid, dense evergreen *shola* regions at the foot hills of Western Ghats, mention should be made of two introductions of recent years. One is the Singapore jack from Ceylon, reputed to bear its fruits within three years planting. At Kallar, seedlings planted in 1947 produced their first crop in 1950, and the fruits were comparable in quality to other jack fruits. This precocious habit is not usually found in seedlings of ordinary jack. The Singapore variety has also the additional virtue yielding fruits over a very long season from February to July every year. In certain humid situations, the variety has done well in this State and its cultivation deserves to be extended in similar other areas.

Among temperate fruits several varieties of apple, plum, tree tomato etc., have been introduced. Of these, an apple variety Parlin's Beauty, a plum variety Purple King and two tree tomato varieties, Red and Yellow from New Zealand have emerged as superior types with good eating qualities.

The introduction of fruit plants for trial and isolation of superior types for extended cultivation, is being continued in a systematic manner. Cherimoyer and plum varieties from U.S.A., apple plum, and pear varieties from New Zealand, apples from Israel, a lime variety and three avocado varieties from Ceylon, several types of jack from Indonesia, Ceylon, Malaya and Philippines, the clive from Italy, a perennial strawberry variety from England are a few of such new types that are now under

Indian Council of Agricultural Research

The Rafi Ahmed Kidwai Memorial Prizes for Agricultural Research

The Indian Council of Agricultural Research has, with a view to creating an incentive for research workers and to recognising outstanding research work done by them in the fields of agriculture, animal husbandry and allied subjects, decided to institute 11 prizes of the value of Rs. 5,000 each. These prizes will be known as "The Rafi Ahmed Kidwai Memorial Prizes for Agricultural Research" and one prize will be awarded annually for outstanding research work done in India in each of the following subjects:—

- 1 Agronomy.
- 2 Agricultural Engineering.
- 3 Agricultural Chemistry.
- 4 Agricultural Botany.
- 5 Agricultural Zoology (including Fisheries).
- 6 Horticulture.
- 7 Animal Breeding.
- 8 Animal Nutrition (including Physiology and Biochemistry).
- 9 Animal Diseases.
- 10 Dairying.
- 11 Agricultural and Animal Husbandry, Economics and Statistics.

2. These prizes will be in the form of gold medals or cash or both and the first prize in each subject will be awarded for outstanding research work done in the country either individually or jointly, during the Calendar year 1957, i.e., 1st January to 31st December 1957, and thereafter for such research work carried out during each subsequent calendar year.

3. The award of each of the prizes shall be based on significant advances in human knowledge in a particular subject as revealed by books, monographs or papers published in the name

of the candidate or any other unpublished research work done or discoveries and inventions made by him. The selection of a candidate for the award of a prize will be made on the recommendations of a Judging Committee consisting of eminent scientists appointed for the purpose by the Indian Council of Agricultural Research. The award of a prize may be made to more than one research worker and the prize money divided amongst them in such proportion and manner as may be decided by the Council.

4. All research workers, engaged in research work in India, in the fields of agriculture, animal husbandry and allied sciences are eligible for competing for these prizes. Applications should be submitted in quintuplicate, in the prescribed form, which can be had, free of cost, from the Additional Secretary, Indian Council of Agricultural Research, Queen Victoria Road, New Delhi. Candidates working in Research Institutes, etc., should submit their applications through the Head of the Institute/Department, etc. Others may submit their applications direct.

5. All applications should be sent in a sealed cover and addressed to the Additional Secretary, Indian Council of Agricultural Research, Queen Victoria Road, New Delhi, so as to reach him not later than the 30th April 1958. The cover of applications should be superscribed as under:—

"Application for the award of the Rafi Ahmed Kidwai Memorial Prize for Research in . . .". Applications received after the 30th April 1958 will not be considered.

est. Still others will no doubt be added in future years. Foreign introductions and those from other States have thus come to play a vital role in enriching the fruit wealth of the State and ensuring economic prosperity to fruit growers.

Vegetables.

Work on the improvement of vegetable crops in the State has been taken up only recently in an intensified research programme. In this sphere too, introduction of varieties and their trial to select the most outstanding ones, has been recognised as one of the essential steps towards their general improvement. The chief commercial potato variety of the Nilgiris, Great Scot, is an introduced one. The area of over 19,000 acres under potato in the State is almost wholly confined to this variety.

Sweet potato is another of the tuber crops cultivated over an area of 15,000 acres. There are many local varieties, but they have some defective features. Some produce tubers with dry and mealy pulp, some develop off-flavours on cooking, but a common undesirable trait is their ill-formed, spindly, small tuber. The need was felt, therefore, for the introduction of superior types possessing good qualities. Work at Coimbatore and Mangalore (in the pre-reorganisation period) has shown that three of them are of outstanding quality. These were originally introduced from America into North India from where they were imported into the State for trial. Two of these are Chinese varieties, producing large roots and yielding over ten tons of tubers per acre. One is white-skinned and white fleshed (V. 2) and the other has a red skin and creamy flesh (V. 6). Both have soft and malting, sugary flesh variety (V. 8) white skinned and white fleshed and in yield and quality as outstanding as the Chinese varieties. All these are now fast replacing the local types in cultivation, which besides their poor quality hardly give more than about six to seven tons of tubers per acre.

Another introduction of value is a perennial onion type known as tree onion. This was introduced from U.S.A. and has been found suitable for cultivation at elevations over 5,000 feet, in places such as Coonoor and

(Continued on page 35)

They Risked Their Lives to Save Others

Five Policemen get Kendall Medals



*P.C. No. 1898, Sadasivam of
Tanjore District.*

The Kendall Humanity Medal of the Bombay Humanitarian League was awarded to five police constables of the State, two belonging to Tanjore district, one to Madras City Police, one to



*P.C. No. 1093, Srinivasan of
Tanjore District.*

Salem district and one to Coimbatore. The names of the awardees together with a brief account of their humanitarian deeds in the discharge of their duties are furnished below. It will be noticed that, in each of these instances, the constables displayed a great sense of devotion to human life despite personal risk and rare presence of mind in a critical context where the life of a human being was involved. It is in recognition of this heroism beyond the call of duty that the Bombay Humanitarian League has chosen the constables for the Kendall Humanity Medal this year.



*P.C. No. 3409, Ramarathinam,
Madras City Police.*

Police Constable 1898, Sadasivam of Tanjore district on 26th September 1955 at 8-30 p.m. was called to the scene of a grim tragedy, in the canal near Cadles Road Bridge, Tanjore. One Thangammal had jumped into the canal throwing her seven-year old daughter and committed suicide. Some passers by heard the frantic cries of the infant and were attracted to the spot. Police Constable Sadasivam, who was on duty near the bridge, on hearing the cries of help from the people, plunged immediately into the canal and rescued the girl. He rendered first aid to the girl and saved her life.



*P.C. No. 1757, Rajagopal of
Salem District.*

Police Constable 1093, Srinivasan of Tanjore district rescued Srimathi Valambalammal, aged about 65 as she

(Continued on page 36)



*P.C. No. 867, Venkatachalam of
Coimbatore.*



Work and Nourishment

ON October 2, 1952, the birth anniversary of Mahatma Gandhi, a daring experiment was launched—a village programme that started off simultaneously in twenty-eight States. The motto of this programme is 'Destination—MAN'. Its scope extends to sixty million families living in our five lakh villages.

In the words of the Prime Minister, 'this is a generation of hard labour.' For, a Community Development programme of such immensity means work and more work—individual and organised. And this hard-working mass of people needs proper, planned nourishment. They need balanced diets that include fats and vitamins to replace energy, keep bones strong and bodies healthy.

At least two ounces of fats per day are recommended for adults by the Nutrition Advisory Committee of the Indian Council of Medical Research. Fats provide 2½ times as much energy as wheat or rice and set up reserves against illness. Dalda Vanaspati, a wholesome fat made from pure vegetable oils, contains both Vitamins A and D. Seven hundred International Units of Vitamin A are added to

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The Social Objectives of Bhoodan*

By Sri N. MURUGESA MUDALIAR, Deputy Secretary, Food and Agriculture.

A Professor of Politics who was lecturing a student audience about socialism, when asked as to what he thought of Bhoodan, answered with an air of conviction that he thought no person either divine or semi-divine could bring about socialisation that of land by asking for gifts of lands for distribution. Those who have such misconceptions about Bhoodan would be well advised to read this little book containing the utterances and writings of Vinoba Bhave on the Bhoodan Movement.

It is well to understand that Bhoodan was not promulgated as a political programme or an economic calculations. It all happened this way. One April morning in 1951, Bhave was touring Telangana at a time when there was murder, looting and arson in that territory. At one place, at the request of the local Harijans to get some land for them, he asked the villagers to donate sufficient land for them and the villagers readily acceded. It was an eye-opener and Bhave tried this appeal in the rest of his tour and within a period of two months, he received about 12,000 acres. The results were unbelievable and Bhave received an invitation from the Prime Minister to place his views before the Planning Commission at Delhi. He walked all the way to Delhi and in the course of two months which he took to reach Delhi, he received some eighteen thousand acres of land. Subsequently at the request of friends he toured Uttar Pradesh and received as *dan* nearly a lakh of acres. For over four years now, he has walked through many States including Tamil Nad and the total gifts received are about five million acres including about 2,500 whole villages offered as gramdan.

In his earliest utterances, reproduced in the book under notice, Bhave explained the background which prompted

* Review of—

"BHOODAN YAGNA" (Land-Gifts Mission) By Vinoba Bhave—Published by Navajivan Publishing House, Ahmedabad—pp. 134—Price Annas 14.

him to make this appeal. Since Gandhiji's death, he was trying to find some field for continuing the Masters' experiments with non-violence. His work of rehabilitation among the Meo Muslims encouraged him to go to Telangana where he saw the vision of non-violence in the form of Bhoodan Yajna finding fulfilment. Ordinary men might laugh at divine inspiration, but for those who believe in God's guidance, it is tangible and real. He knew he had not the strength for the stupendous task, but he had unlimited faith.

Bhave had no illusions in his mind that he was going to solve the land problem by distributing the *dan* lands. It would require five crore acres for such distribution to India's landless labourers. But his idea was not either equal nor equitable distribution of land. His idea was not to appeal for lands only from those who had in plenty but from everyone who could share. It was an universal appeal and even poor people who had a few acres gave a part of it. He explained his mission as an act of devotional service not only to the poor but also the rich. His aim was to create a psychological atmosphere for an ideological revolution, and where there is an ideological revolution life certainly marched towards progress. His aim was not to stem the tide of communism or to establish socialism but to evolve a new type of revolution in India based purely on love, consistent with her culture and ideals. Such a revolution is an historical necessity but the means was the most important thing. On one occasion he said, "My mission is not to stave off a revolution. I want to prevent a violent revolution and create a non-violent revolution. The future peace and prosperity of the country depend upon the peaceful solution of the land problem". The motive force behind this revolution was to be love and that love should be universal. He wanted to endow his mission with a popular power which he called 'loka sakthi' as distinguished from 'danda

sakthi', the coercive power of the State. The object is to abolish poverty in India, not by revolution or by legislative interference but by a social consciousness. The universality of the movement is a refutation of the class-war conflict which communism holds as inevitable. The revolution of his conception stood for three things: First, he wanted a change in people's hearts; secondly he wanted to create a change in their lives, and thirdly, he wanted to change the social structure. Nothing of these could be achieved through pressure or force but by a clear understanding of the social duties. The philosophy behind these demands is that wealth even though acquired by individual effort is not for exclusive possession and in respect of land, its sharing is not a favour that is conferred on the landless but merely a restoration to them of what is theirs by right. Because, land is not a property for direct enjoyment and the donee has to improve it and wet it with his own sweat before he can get his bread out of it. Denied this fundamental need, he is denied a human right. To enable him to satisfy this fundamental need and aspiration, it is necessary that the land should be shared. Such an adjustment Bhave calls as 'the call of the age'.

From the beginning, Bhave was not oblivious to the difficulties of distributing the gifted lands and getting them put to productive use. Collection of gift lands is the least part of the work of the Bhoodan Yajna. The main part of the work came after that. The lands collected will have to be distributed and those who receive the lands will have to be provided with the necessary resources to put them to use. In order to carry out this work, Bhave coupled an appeal for Sampathdan or sharing of property with this movement for land gifts. These two are inseparable counterparts to bring about an equilisation of prosperity, which is the ideal of Sarvodaya.

Bhave did not want to create any central organization for this work of

distribution. He explained the reason as follows: "We are not against setting up an organization as such. You can form local organizations. But setting up an organisation on an all-India scale involves enforcement of discipline and then, as we know from experience, everything becomes bogus. We want to keep clear of this great pitfall. A big organization, while it becomes useless so far as work is concerned, engenders a feeling of vanity in its followers. It then serves as a label which people use for selfish ends. Everybody seeks to build up his party and in effect isolates himself from the people in general. Instead of shaping the society after what they believe to be true and desirable, they just cut themselves away from it. Had we set up an independent organization of our own, we would not have received the co-operation that we are receiving". This principle of dissociating the movement from any political programme or centralising it has amply justified itself. Except under totalitarianism social change is not centrally directed. In a recent message (July 1957), Bhave said that no legislation can ever achieve what Bhoodan or Gramdan had done. The fact that 2,500 villages had been obtained in Bhoodan had made even the sceptical to sit up and take note of this new technique,

the first instance in history, when private ownership is being liquidated with consent. All eyes are now turned on this non-violent experiment for socialisation of land without State intervention or legislation or class-conflict.

Psychological Approach

Although essentially a movement based on the gospel of love, it is not wholly without a political philosophy or economic justification. Writing on the political theory of Bhoodan, in the August 1957 issue of the "Bhavan's Journal", Jai Prakash Narain wrote "The Bhoodan movement does not aim at capturing the State in order to use it for its ends. As a corollary, it does not wish to create or become a political party in order to capture the State. It aims rather at persuading the people, independently of what the State may or may not want, to carry out a revolution in their own lives, and through that a revolution in society." The economic justification rests not on bookish theories but on the essential fact that no economic structure can be sustained except by the invisible factor of human relations. The psychological approach is as much necessary in economics as in every other thing. The economics of social change is yet to be written.



Block Development staff of Maduranth gam contributed Shramdhan with the villagers to lay an earthen road at Mudukarai village during last month.

The book under notice contains Bhave's writings on Bhoodan up to 1953 and is a valuable guide for a correct appreciation of the movement. His later utterances are published in pamphlets issued by the Sarvodaya Prachuralaya and in journals like "Bhoodan", Poona and "Sarvodaya", Tanjore. Many articles have also appeared in foreign journals.

A.C.C. Boys Saved a village

How the A.C.C. boys bravely fought a fire in the middle of a night and saved a village from complete destruction, while camping at Manur village in Tirunelveli district, has been reported.

The boys from various schools of Tirunelveli district, numbering about 500 were fast asleep inside Manur Temple on September 9th after a day's toil in laying a village road. They were aroused suddenly by screams and to their horror found a hut in the middle of the village in flames. The wind was blowing fast and threatened to destroy the village completely.

The boys under the camp Commandant Gopi and his army staff rushed to the scene, fought a battle for almost an hour to bring the fire under control. Two huts were lost to the fire and five boys were injured slightly during the operation. The village people paid their grateful thanks to the boys for their timely help.

(Continued from page 31)

Ootacamund. The chief feature of this variety is that it produces small bulbils (miniature onion bulbs) on flower stalks, which form a perpetual source of supply of mildly pungent onions to the housewife. A plant may produce bulbils within a year of planting and continue to produce them for over three months. By transplanting the suckers that develop at different times of the year, a succession of supplies can be ensured and unlike the ordinary onion, it requires less space and is admirably suited for home gardens.

(Continued from page 32)

was being washed away by the current in the river Cauvery near Bhagavat Padithurai on 17th November 1955. Srimathi Valambalam was one of a big gathering of bathers at Bhagavat Padithurai, Kumbakonam, on that day, when she slipped and fell into the river. But for the adroit action of Constable Srinivasan, who plunged into the river immediately on hearing the alarms raised by the woman, she would have found a watery grave. This so impressed the Collector of Tanjore that he gave the Constable a reward of Rs. 30.

Police Constable 3409 of Madras City Police on 18th February 1956, saved the life of a 14-year old girl, Kumari Sakunthala, one of the vast concourse of pilgrims for Mahamakam festival at Kumbakonam. She fainted in the midst of a milling crowd on the bridge and fell into the river near Chetti Padithurai. Constable Ramarathinam (then No. 2330 of Tiruchirappalli district) who was on bandobust duty, heard the cries of the mother of the girl, jumped into the river, brought out the unconscious girl, rendered first aid and saved her life.

Police Constable No. 1757, Rajagopal of Salem district, dived into a 20-foot well near Vedrampatti and saved the life of a 11-year old boy Mariappan, on 18th June 1955. The boy's leg was lame due to infantile paralysis and his left hand was deformed and he had got into the well to drink water. His younger sister who watched him go down the flag-stones, saw him slip and fall and raised an alarm. Constable Rajagopal, who was proceeding along that way, heard the distress call, dived into the well and brought out the boy. He rendered artificial respiration to the unconscious boy and saved his life.

Police Constable 867, Venkatachalam of Coimbatore district, saved the life of Karuppammal, who had jumped into a 40-foot well intending to commit suicide on 4th March 1956, at Kempatty Colony. Venkatachalam got into the well by means of a rope tied to one of the pillars of the parapet wall, dived into the water and lifted the drowning woman above the water. He tied the rope round her and asked the people on the top to drag her out, while he kept swimming and at the same time supported her from below. Later

he himself got out by the same rope. The woman who was unconscious was given artificial respiration and taken to the Headquarters Hospital, Coimbatore, where she recovered completely.

(Continued from page 11)

human as well as National relations, then it should enter the hearts of the masses. Co-operation should not be regarded as a mere technique of economic organisation. It is "the spirit of the age", "it is a matter of heart and spirit" and it is a "way of life." It is in this sense that co-operation goes with democracy and ensures the people's participation and creates a moral force and self-confidence which are most needed for the people's plan. It is, therefore, necessary to create conditions of popular education, popular initiative and popular responsibility with which alone the co-operative movement can have enduring progress. The broad principles of co-operation should permeate the masses and the people should become fully imbued with a spirit of working together, for a common end.

LEGISLATORS VISIT PROJECT AREAS



The legislators of Madras State recently visited a few villages of Tiruvallur and Uthukottai Development blocks to make a first-hand study of the progress made under Community Development Schemes.

The legislators saw a number of new buildings for schools, hospitals and community centres springing in the area. The womenfolk who hitherto depended solely for a living on agriculture were found making substantial living by taking up to spinning Khadi.

The villagers who were met by the legislators spoke appreciatively of the services rendered under the Community Development Programme.

Modern methods of agriculture, which increased the yield nearly to three times, could be seen by the bumper crops of paddy in quite a few villages.



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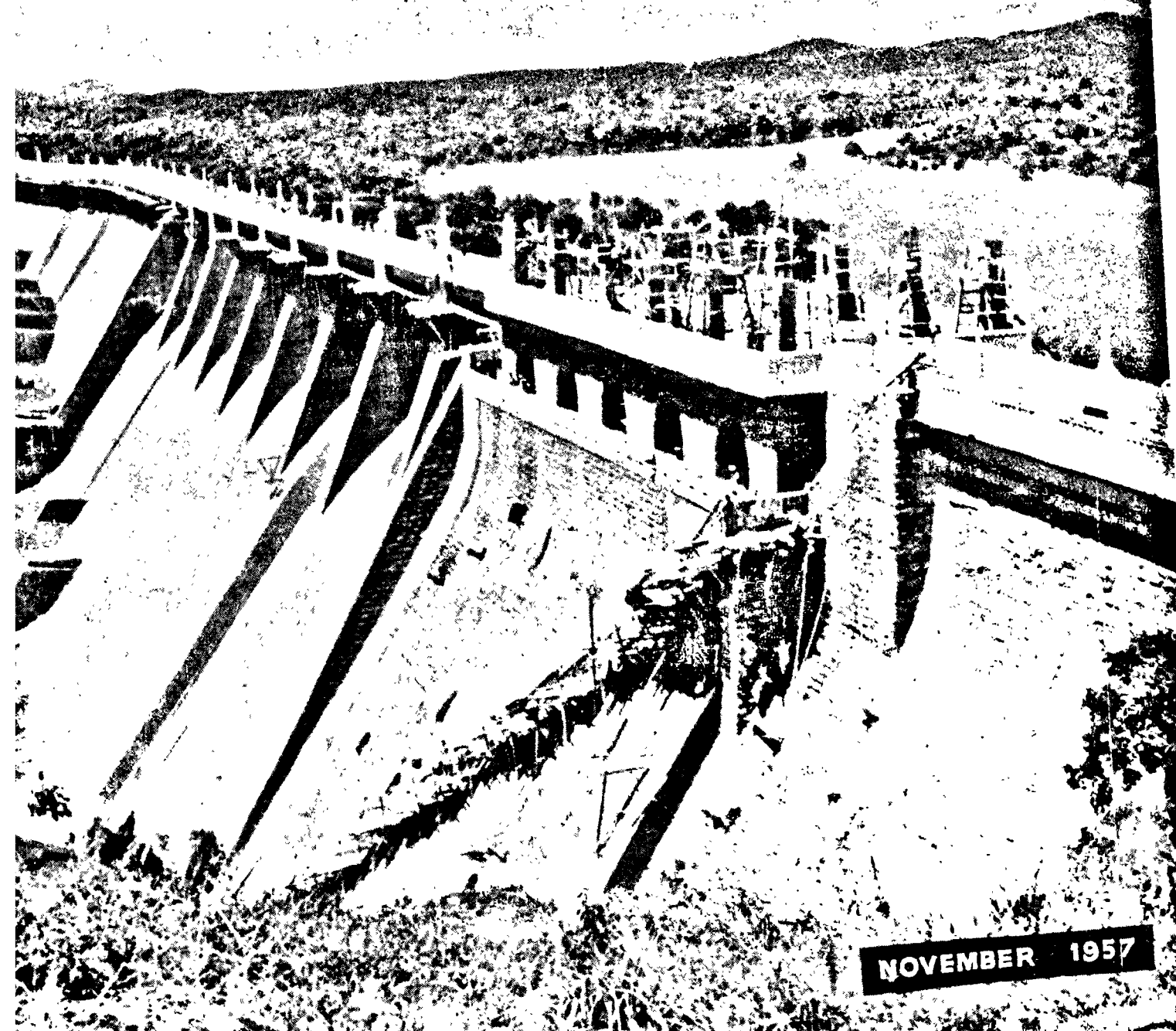
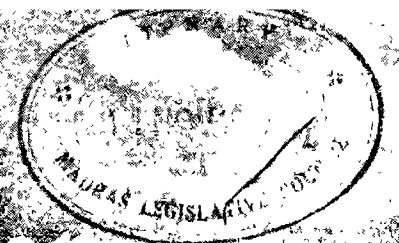
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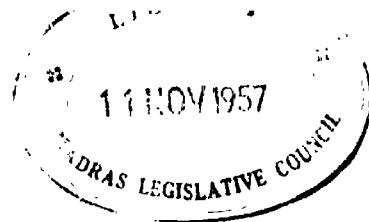


MADRAS

Information



NOVEMBER 1957



ACTING GOVERNOR AND ACTING CHIEF JUSTICE

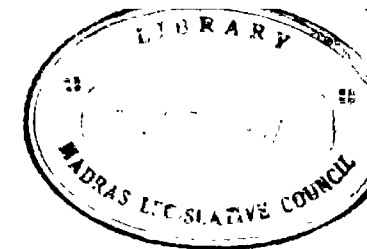
Sri P. V. Rajamannar, Chief Justice of Madras High Court was sworn in as the Acting Governor of Madras State on October 1, 1957 at the Cabinet Room of the State Secretariat. Sri P. Rajagopalan, Senior Judge of the Madras High Court administered oath of office.

Sri P. Rajagopalan was later sworn in as the Acting Chief Justice of Madras High Court by the Acting Governor.

Chief Minister Sri K. Kamaraj, Cabinet Ministers, Judges, Officers of the Government and dignitaries were present on the occasion.



Price, 20 Naye Paise.



Madras Information

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Vol. XI, No. 11

"WE SEEK TO SERVE AND NOT TO COMPETE"

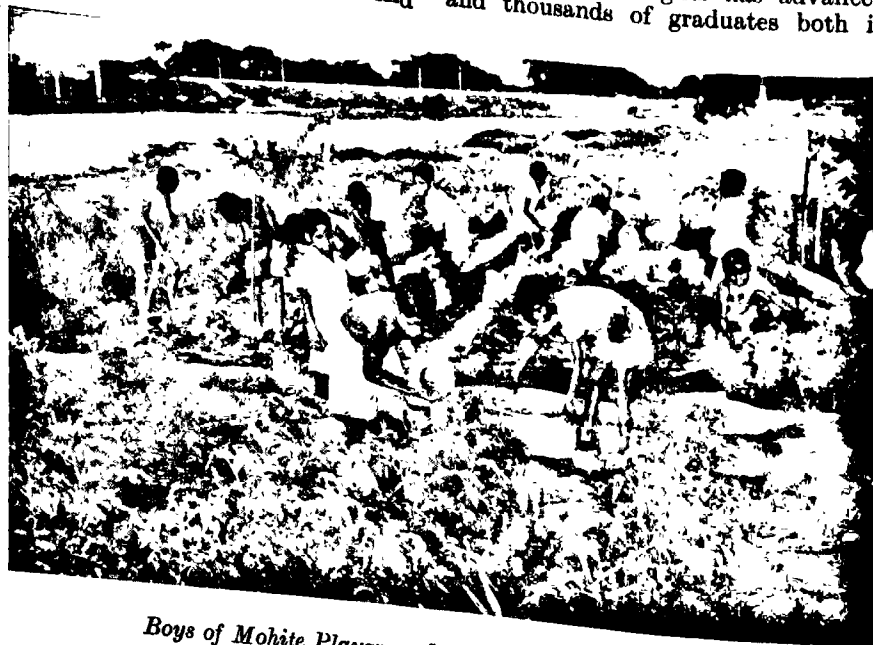
November 1957

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Front cover page: Sathanur Reservoir across Ponniar in North Arcot District. The Reservoir is to be opened for irrigation by Chief Minister Sri K. Kamaraj on November 10, 1957.

The Women's Indian Association has to its credit the passing of the Child Marriage Restraint Act in the Assembly and also strenuously working for its enforcement by the appointment of Sarada Committees and also the Suppression of Immoral Traffic in women and children in this City. Also, the abolition of the Deva Dasi system in the Hindu Temples has become a thing of the past. It has consistently worked for the eradication of Untouchability both by propaganda meetings in the City and by giving grants and scholarships to institutions and individuals for the education of Harijan girls. Its work for the encouragement of indigenous industry and Khadhar is well known to the public. The Madras Children's Aid



Boys of Mohite Playground doing their own gardening.

Society was the outcome of the efforts of this association as also the establishment of the Juvenile Court in the City of Madras. Mrs. Margaret E. Cousins, the Secretary of this Association, was the first Hony. Magistrate in this City and many of the present Hony. Magistrates are members of the Women's Indian Association.

The Seva Sadan, the Avvai Home and Orphanage for Girls in Mylapore and the Children's Aid Society and the present Rescue Home are the institutions initiated and set on foot by the efforts of this Association.

This Association organised the first All-India Women's Conference which in its turn organised the first All-Asian Women's Conference at Lahore.

A cursory reading through the annual report of this Association will prove beyond a doubt the wide scope and extent of their activities with a long and continued record of service to the women and the country without any party or communal bias. It is a matter for pride for any women to be a member of this organisation.

Women on the march.

Towards the end of 1956, the original members of this Association lived to witness with joy and satisfaction the fruits of all their labours. As already stated, Child Marriage has become a thing of the past and the age of consent has been raised beyond all expectations. The education of girls has advanced and thousands of graduates both in

Minister, Lady Governor, President of the United Nations, etc. The recent Elections has returned a large number of women to Parliament. Certainly, the Indian Women are on the march. Our dear sisters in England—the late Miss Agatha Harrison who fought for our causes and Mrs. Grace Lankester who still continues to be with us—have in England the Association for the Women of India, Pakistan and Ceylon.

The spirit and the fervour created by Mrs. Margaret Cousins, the Irish rebel for women's rights, and late Srimathi Sarojini Naidu, have won for them a place in the hearts of many Indian women today and they pay fitting tributes to these two great women, and so may I close the Women's Association history and work with the following words of the late Srimathi Sarojini Naidu while addressing the women:—

"We must have no mutual conflict in our homes or abroad. We must transcend differences. Even patriotism is not enough, as nurse Cavell said. We must rise above nationalism, above religion, above sex. Our common humanity is the bond that cannot, that must not be broken. More and more let us repeat, 'We are human'. Let us identify ourselves with our soul, and read its capacity and its need. Let us dedicate ourselves anew to become the interpreters of the larger gospel of humanity transcending barriers of race, creed and land".

The Guild of Service (Central)

The Guild of Service (Central) is running its 34th year of Service. Founded in a small way by Mrs. Waller, wife of Bishop Waller, the Guild of Service was a City organisation and brought women of leisure together with a view to giving voluntary service in the field of welfare work for women and children, the aged, and patients in hospitals.

The aims of the Guild of Service (Central) are—

1. To discover, determine and organise all possible fields of service in the State and outside in the different States of the Union and bring these to the notice of those who may be willing to undertake occasional or regular philanthropic work or public service.

2. To band together for mutual help and advice all those who are

already serving the community in any capacity and to promote co-operation between the different philanthropic organisations already existing or likely to come into existence, as well as to preserve continuity of service by a permanent Committee and Bureau of potential workers.

While encouraging the formation of branches of the Seva Samajam in the States of the Union, in the Districts, Taluk and Panchayat areas where they do not already exist, finally to take all such steps and all such acts as may be necessary to further the above and similar objects.

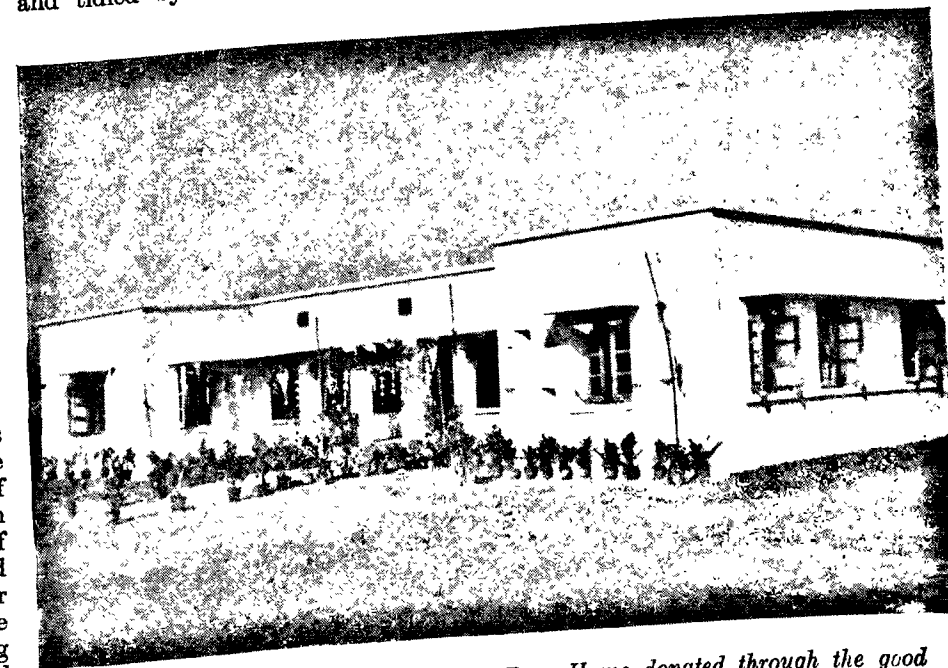
Any person 18 years or over who is engaged or interested in social work shall be eligible for membership of the Guild. It co-ordinates—and does not overlap—social service activities serving those that are needy and raising money through entertainments for the continuity of their work. As service to the organisation was completely voluntary, members gave of their cash and kind for hospital welfare work, sewing parties, etc. The first three main activities were Hospital visiting, Care of the Aged and Entertainment of children in Orphanages.

A large number of Indian ladies joined the Guild and with them came the affiliations of a large number of Indian organisations serving women and children. The ladies gave of their service, of their time, collected monies for good causes, use of their vehicles to bring cheer and joy to the old, needy, unwanted, to the young and the orphans. In 1941, the Guild of Service brought in a large number of women volunteers to work for the Red Cross, more so in the formation of Sewing parties and for the Nurser's Training Scheme under the aegis of the St. John Ambulance Brigade, India, Home Nursing and First-Aid, working in the Hospitals, working in the A.R.P. Shelters. Through the Indian Hospitality Committee which is called to the care for the sick and wounded solidiers in the hospitals, and in no small way assisted in the working and founding of what today is the Women's Welfare Department, but earlier known as the Women's Air Raid Precaution Corps, to teach the women of the City Slums how to take care of their homes, by a knowledge of Fire-Fighting, A.R.P., use of Stirrup pumps, First-Aid, etc. Today the Women's Welfare Department is a full-fledged Government Department

and it was the Guild of Service members who were the founder Members of W.A.R.P.C.

Expansion of activities.

The Guild of Service organised the Gold and Silver Trinket Fund not only in the City but throughout the then State (which included the present Andhra State and parts of Kerala State) and collected within a space of six months over Rs. 1,25,000 towards the purchase of Ambulance in our own theatres of War and Burma and the Middle East. It collected at a Salvage Shop all old tins, bottles and newspapers, these were cleaned and tidied by the women voluntary



Children's Dormitory in Shaligram Boys Home donated through the good offices of the Victoria Branch of the Save the Children's Fund, Melbourne.

workers. These were sold and nearly Rs. 21,000 was collected for the relief of suffering.

working together for those who needed succour and assistance.

The Guild of Service (Central) again claims a link with the Ministers and the Government dealing with their own portfolios such as the Local Development Department, the Public Health Department, the Harijan Welfare Department, etc., and as the requests came through, the Guild of Service was the channel for propaganda for health causes.

The first example of co-operation and co-ordination of activities was a request from the Corporation of Madras to build a Creche in Broadway for them, organise and run it. A Special Committee was formed with representatives of the Guild, the Corporation

In 1946 this vast army of voluntary social workers associated by many of the Districts, wanted to expand into the Districts for continuity of welfare work. With the arrival of Lady Nye, it was decided not only to expand the Guild's activities in the Districts, but also to invite men's organisations to join the Guild, thereby forming a really all-concerned co-ordinating body. This first co-ordination of voluntary workers from Central to District level caused an awakening. Not only individual Government servants, but Government

and the Women's Sub-Committee of The Madras Provincial Welfare Fund. The site was chosen in a slum area and Creche built by the Corporation according to a plan given by the Guild of Service, and the Women's Sub-Committee of the Madras Provincial Welfare Fund raised money to equip the Creche and run it for three years, the Guild of Service providing the Voluntary helpers. This was successfully achieved and then the Corporation took over the maintenance and financing of the Creche. The same Committee again assisted in the starting and equipping of the Ashok Vihar there in the Creche and Maternity Sections. At the same time the Guild formed Sub-Committees, Slum Areas for welfare work, education, entertainments and health programmes. It had the blessings and leadership of the then Minister for Local Administration. The Guild of Service (Central) is ever ready not only to co-ordinate and bring together all social workers on a common platform, but also extend its co-operation and assistance in times of disasters such as Flood, Fire, or Famine by organizing relief work with its volunteers and under its own leadership or in co-operation with other welfare organisations such as the Red Cross, the Bharat Sevak Samaj, the St. John Ambulance Brigade, etc., and also with the Government, etc. Many welfare agencies have taken a lead since its affiliation with the Guild



Tailoring and embroidery are taught to inmates of one of the After-Cure Homes.

and has discovered through its contracts means of seeking direct aid for funds, schemes and standards, while in many other States the pattern and programmes of a co-ordinating nature has been on the pattern of the Guilds whose records and methods are called for. The Guild has no paid staff except for a Short-hand Typist and a Clerk and all its work is voluntary.

The secret of its success lies in the fact that it has always kept its aims and objects clear and well defined—voluntary service for the sake of service and co-ordination of social welfare activities with a view to avoid duplication and overlapping of efforts and create new channels of service and organise and run pilot programmes.

The Mohite Playground, the Seva Samaj Boys' and Girls' Homes, the Madras School of Social Work, the Mangalapuram Nursery School, and Creche, the Information Bureau, the Thrift Shop, the Nursery Schools in Hospitals are some of the efforts of directly organised by the Guild, which continue to run satisfactorily and to this may be added the Bala Vihar, a Home for the Mentally Retarded and Physically handicapped children, the Medical Centre at Mangalapuram and the Juvenile Guidance Bureau and the revival of the Refreshment Counter every year.

As it gained, experience the Guild felt that apart from being a co-ordinating agency, it should launch out and

start its own efforts for the Blind, Deaf, and Dumb, the orphans, the destitute and the delinquent, under its auspices. It did so by building up its own little slum Community Centre in Samireddipuram. This little Centre has a small building costing Rs. 1,200 built with the personal attention of a few of the voluntary workers interested in slum welfare and equipped by the Guild of Service through personal donations. It began with a Nursery School and in 1955 it has started a Vocational Centre.

Then it has founded the well known Seva Samajam Boys' and Girls' Homes in which for the first time the idea of Foster-Care was introduced into India. The Home was founded to give shelter to many destitute children who otherwise found their way only to the Government Certified Schools. Besides this, the child though an orphan was made to feel that he or she had a foster parent to love and care for him or her. The Home has received World wide recognition for the spirit in which the Home is run. It is a Home and not an Orphanage. A minimum of paid staff are there, but the activities and the work are being carried on by the children themselves with a Cabinet and it has a chief Minister along with the Ministers for Finance, Education, Health, and Sanitation, Foreign Affairs, and Defence, Industries and Commerce. Each Minister has his Portfolio and looks after everything and the needs of the Home. The Chief Minister has an overall control over his Cabinet. The Health Minister looks after the health of the children, reports when they are sick or are not well immediately to the Matron and administering First-aid and, if necessary calls for the attendance of the Doctor. The Food Minister supervises the purchase of the entire food articles for the children and inspects the preparation of food in the kitchen and in the stores along with the cook and serving arrangements. The Minister for Agriculture is in charge of the Poultry, cows and gardening.

The Minister for Foreign Affairs is in charge of the correspondence of the children with their foster parents by letter, several are from overseas—the Unitarian Service Committee of Canada CORSO, New Zealand, Foster Parents in Australia, England, German America, and France, as well as with foster parents in India, the President

of the Indian Republic, the Governor of the State, the Armed Forces, H.H. The Maharani of Travancore, H.H. The Marajah of Gwalior and several institutions and others.

The Minister for Education supervises the childrens' Home Work, Education and studies, and care of books, etc., and likewise the Minister for Finance looks on the pocket money and the expenditure of the children.

The next organisation founded was the Mohite Playground, a home for delinquent boys. These children are housed in a camp like home with lovely grounds and they live in a camp life attending the school in the premises run by the Corporation of Madras. They have, besides their education, training in Mat-making, Carpentry, Poultry keeping and a Band which is in large demand at all functions.

The Mangalapuram Nursery School Creche and Medical Centre is in the heart of a slum and caters for the education of slum children. It is now sponsored by the Unitarian Service Committee of Canada and run by a Special Committee of the Guild. The buildings of these centres were made possible through a generous donation of some of the members in Memory of their dear ones.

Likewise, the Information Bureau supplying all information is run by volunteers and so now is the Library for the Children.

The Madras School of Social Work

The Madras School of Social Work was founded in 1952 by the Guild of Service (Central) and the Indian Conference of Social Work, Madras State Branch. To-day it has acquired All India fame. These students as soon as they leave the portals of the institutions are employed in industrial concerns, Governmental After-Care and Children's Homes in rural parts, in Correctional and Probation Departments. The honour conducting the first social and Moral Hygiene Course under the aegis of the Central Social Welfare Board has been given to the School.

Still further, the Guild of Service founded the Bala Vihar, a Home for the mentally backward children, the first of its kind in South India. The



Cotton printing is one of the easy crafts that women can learn to make their own living.

building received its initial donation of Rs. 5,000 from the Madras Rotary Club towards the Rotary Cottage and Mr. K. V. Thadane of the Concrete Association of India and a leading Rotarian designed the Rotary Cottage and planned it and it was built under his personal care and supervision.

The Guild of Service and the Rotary Club of Madras under whose aegis this Bala Vihar has been started and run raised other donations in cash and also in kind. It has greatly indebted to Mrs. Ida Chambers who so generously donated towards the building, electrical and sanitary requirements, and to the Madras Provincial Welfare Fund for a generous donation to the completion of its building. The Bala Vihar cost Rs. 15,000 and Rs. 10,000 was collected by the Central Guild. In it there are 25 mentally backward children who earlier were roaming in the streets and exploited and now who are learning both in the school and the vocational centre trades and are turning into fine little citizens in spite of their disabilities. A gift from CORSO has added a sick room.

In the Districts.

In the Districts, the Guild of Service Branches are also running Creches and Nursery Schools, Vocational Centres, Homes for the Blind, Women's Homes, Baby Welcome Homes under their

aegis and Orphanages under the aegis of the Guild. At the same time, Medical Relief Work of the Community Projects, under the auspices of the Central Social Welfare Board has been carried on excellently and supplies of food gifts from the UNICEF, CARE, Meals for Million Foundation, etc., are received through the Central Guild and are allocated to its welfare agencies. It has in this city over 250 welfare institutions affiliated including the Consular Representatives, having branches in Andhra, Kerala, Mysore and Pondicherry States, in Assam, Bihar, and Madhya Pradesh. The Patron-in-Chief is the President of the Indian Republic who is also the Patron of the Bala Vihar Home and the Seva Samajam Boys' and Girls' Homes, and always visits the institutions and meets with its members when he is in the City. The Governor is its President. The Countess of Mountbatten is amongst its Patrons.

In Disaster and Relief Work, the Guild of Service (Central) has proved its organising capacity and to the credit of the Guild of Service and the State Branch of the ICSW was the organising and running for the first time in the East the International Conference of Social Work. Thousand two hundred delegates from 38 Countries in the world were present. The co-operation of the Government and its Ministers, the Mayor and the

Commissioner of the Corporation of Madras, from the public and the individuals of Madras made this conference a success. Subsequent conferences have been held in other parts of the world. Those that attended the Madras Conference—this refers to the foreigners specially—still vouch that this was the best organised besides all comforts to the Delegates, cultural and educational programmes of the highest order, were produced. Great artistes like Srimathi M. S. Subbulakshmi, Srimathi Rukmani Devi gave of their services free to entertain the Delegates. The tribute on the plaque presented speaks for itself—

"The Sixth International Conference of Social Work meeting for the first time in Asia, with over 1,200 persons in attendance from 35 different countries and 20 International Agencies both Governmental and Voluntary, places on permanent record its high appreciation of the Madras Reception Committee and the Madras Guild of Service for their magnificent spirit and for their untiring devotion in ensuring the outstanding success of this Historic Conference. The Conference also places on record its gratitude to the Governor of Madras State, the Chief Minister and Members of the State Cabinet, the Mayor of Madras, the members of the Press, the Colleges and the host of citizens, 200 of whom opened their homes in gracious hospitality to the Conference Delegates."

(Sd.) G. E. HAYNES,
President.

(Sd.) R. HOFFER,
Secretary-General.

19th December 1952.

The Guild of Service has Members in all parts of the world and a Life Member in Lady Violet Braddon from Australia. It is called on by the Government in the organisation of receptions to important dignitaries under its roof where all castes, creeds and forms of social welfare both Government and voluntary, its pattern and its way of work has been studied and emulated by various organisations in other parts of India and in other States.

Madras Vigilance Association.

At the same time as the Guild of Service was founded by Mrs. Waller, the Madras Vigilance Association was founded with Bishop Waller as Chairman and with the late Dr. Annie Besant Dr. Muthulakshmi Reddi, the late Mrs. Margaret Cousins, Srimithi Jinaraj

Dasa, the late Sir P. S. Sivaswami Iyer, and the late Mr. K. V. Sessa Iyengar. The organisation was there to take care and rehabilitate girls rescued from moral vices and from exploitation and also to introduce bills for the care and protection of these young girls and women and also to reduce the vice. Branches were started in all the districts of erstwhile State of Madras and the Centre of Rescue Home in Madras. In 1938, the first Indian Woman Welfare Worker Srimathi V. T. Lakshmi, and now the first woman Chief Inspector of Certified Schools and Vigilance Service became its woman welfare worker, its propagandist and the Headmistress of the first Special School. Thousands of erring and exploited women and girls have been rehabilitated.

In 1948, the Vigilance Association was provincialised and under the Government aegis the institution is growing in its scope of service and rehabilitation. The Government recognises also private run Homes by giving them assistance and grants. These are to be found in Coimbatore, Salem, Madurai, Tanjore, and Tiruchirappalli. Recently a Special Home for Unmarried Mothers has been recognized by the Government as well. Women and girls who are often exploited and are innocent victims of the vices have been rehabilitated by training into useful professions. Several of the girls have under taken college training, teachers and midwifery training, Gram Sevikas and others, while many are given in marriage and are happily settled.

This is a very special and very dedicated work and the full-time workers that run and man these establishments are one of the finest workers in the Country. The Social and Moral Hygiene training for the first time being given in the country has been entrusted to the Madras School of Social Work by the Central Social Welfare Board, where women workers from all over India are being trained to run and organise establishing the various new After-Care Homes envisaged and started in the Second Five-Year Plan of the past traditional centre, on Social and Moral Hygiene existed in the Madras Government Vigilance Home and Stree Sadana and Srimathi V. T. Lakshmi, the Chief Inspector of Certified Schools and Vigilance Service, is the Honorary Adviser of the Course.

These institutions, their services, their administration and their work are studied and observed by people both voluntary and full-time workers from all over India. The Certified Schools have also become fine Homes for Boys and Girls needing care and protection and the plays and vocations they turn out are as good as any other institutions serving young boys and girls. The recognition by Government of the various well-manned institutions run by voluntary agencies to receive destitute and delinquent children has greatly assisted and the Madras Vigilance Association has won the greatest commendation throughout the country.

Women's Welfare Department.

India's salvation, said Mahatma Gandhi, depends on the sacrifice and enlightenment of her women. And the Indian woman, who for long had put up with the position of the "weaker sex" is slowly coming into her own in all walks of life. The Constitution of India has abolished all discriminations on the basis of sex in the matter of political rights, right to employment, etc. The women, therefore, have a vital role to play in the building of New India and it is to help them to accomplish this task that the Government of Madras have constituted the Department of Women's Welfare.

This organisation was actually founded in 1941 itself. A band of voluntary workers had organised themselves in Madras City to instruct illiterate women in the Slum Areas on Air Raid Precautions. The "Women's Air Raid Precaution Corps" as this organisation was known, had established branches all over the State and done useful and valuable service. When the war was over, it was felt that the experience gained by the WARPC during the war could be profitably used for constructive Social Service work in the peace-time, especially among women and children. Simultaneously the need for expanding the scope of social organisation with a view to undertake nity welfare services, particularly in rural areas was also recognised by the Government, and as a result the WARPC was recognised and renamed as the Department of Women's Welfare in 1947.

Madras was threatened with Air Raid and the population was panicky. ARP Squads and Centres were working, but protection for women and children

Indian Conference of Social Work

in the congested areas had not been possible and those were the vulnerable targets of raid. Besides, men worked all day. Mrs. Nichol, wife of the then Naval Officer-in-charge, who had been in the "Battle of Britain" offered to lecture in the use of Stirrup Pumps during Fire Fighting, etc. With the collaboration of leading Indian women was founded the WARPC and Mrs. Nichol lectured to a number of us a First Course lecture on First-Aid, use of stirrup pumps, etc., along with the demonstrations and lectures were also translated into Tamil, Telugu and Malayalam. The ladies then spread into other areas and on the pials of houses were collected women of the neighbourhood and where these lectures were given in a simple form with demonstrations and the women were taught and made thorough. It did not stop with just these lectures, but lectures on Health, Nutrition, on Child Care and on topics of the day, and arts and crafts were introduced. Women let their pials and little cottages for the lecture work to be organised and thousands of women joined in the City. The work was completely voluntary but the Government gave a small grant for the office and an Office Assistant. This work spread into the Fort Areas that were considered vulnerable.

Mrs. Nichol is not to be forgotten for what she did. On the first Anniversary the writer of this article remembers that was the 1st November, where in the Banqueting Hall, the wife of the Governor and officials, Princess and Society women and others were gathered in common membership, all wearing WARP Badges. British women of all ranks and society, from the Governor's wife, Lady Hope, who was the grand leader of women's work and causes, down to *Ayas* in our services were all wonderful in the cause of protection and caring of Homes, children, and care in case of disaster. It was seen during these years how popular it had become with its first Community Centre in Mohallas and Slum.

After Mrs. Nichol, Mrs. Hayles, wife of the late Editor of the "Mail" became its Women Honorary Director and in her time made a programme of running a Women's Home, Reception Homes and Centres and the Women's Indian Association participated at this time into making this a permanent organisation. In 1944, the first full-time

employed Director appointed was Srimathi Parijatham Naidu. During her stewardship was founded Training Homes for Women in Madras and also in assisting destitute women to be taught and cared for in Agartalla and in other centres. These trainings were essential for deserted women and destitute girls and they have found places as Gram Sevikas and Midwives in different Centres. Today the Women's Welfare Department is the Women's Wing of the Government's Social Welfare Programme and its activities are well known through the columns of this review and I, therefore, will not transgress further into its great achievement. It is now situated in beautiful surroundings in Tambaram and its Director is Dr. Srimathi Jayalakshmi A. Rao, fine, brilliant in administration and amazing in her work.

Now there are Women's Welfare Departments in Andhra, Kerala and Mysore States.

Indian Conference of Social Work

Indian Conference of Social Work was founded earlier in 1948. The National Conference first met in Bombay in 1947 in November, and in January 1948 was formed the Madras State

Branch of the Indian Conference of Social Work. The Madras State Branch steadily held each year its Annual Conference in different parts of the State and has held a National Conference and International Conference. It continues to be the meeting ground of Governmental and non-Governmental social workers and its recommendations are received with respect and attention and its suggestions are often implemented. Its members from Madras attend in large numbers the National Conference each year in different parts of India and contribute both in deliberations and reading of papers on important subjects and in participation. There are branches of the Conference throughout India and the Hyderabad State Branch which was organised later based its Indian Conference programme both on the lines of the Guild of Service in service giving and co-ordinating. The Ministers of State are closely associated and ably assist in the welfare programmes and deliberations. The State Branch has to its credit the First Juvenile Guidance Bureau. Recently, a Child and Parent Guidance Clinic has been started under the auspices of the Indian Conference of Social Work at the Guild of Service Information Bureau, to assist parents in solving difficulties encountered by them in respect of their problem children.



Chief Minister Sri K. Kamaraj declared open Khadi Gramodyog Bhavan at Mount Road under the auspices of All-India Khadi Board in the third week of October. The Gramodyog Bhavan will make available Khadi and Cottage Industries products of different parts of India.

This was founded in 1947 by Lady Nye, the wife of the then Governor of Madras. This is another unique organisation in Madras which took the form of a Community Chest helping welfare institutions in the furtherance of their activities. This Fund has branches throughout the Madras State. Through these 10 years it has been responsible for the starting of many T.B. Sanatoriums in the districts, in assisting many an organisation to start welfare work. The Seva Samajam Boys' Home and the Mohite Playground in the City owed its beginnings to this Fund. And the Madras School of Social work had its first donation and encouragement to start by way of an equipment grant. Hospital equipments, X-Ray Plants, assistance to the Blind, old and the needy masses—the first After-Care Colony attached to the Government T.B. Sanatorium—The Amritnagar Colony, and the Ashok Vihar are the outcome of the assistance from the Madras Provincial Welfare Fund. The Patron is the Governor. The President of the Fund is the Hon'ble Sri Justice P. V. Rajamannar, Chief Justice of Madras and its active Honorary Secretary, Sri S. Govind Swaminathan. The Fund has extended meritorious assistance to the hospital welfare work when so much assistance is not forthcoming from the Government and Central Social Welfare Board.

The All-India Women's Food Council, Madras State Centre, was the outcome of the Grow More Food Campaign started in 1949-50. When the food scarcity came, the All-India Women's Food Council was formed to do propaganda for South India to use more Wheat and to run cheap and Nutrition Cafeterias. The introduction of wheat in the Cafeterias has helped to a great extent to make the people consume more wheat. The Cafeterias were spread throughout the City and still are. There are branches in Madurai, Tirunelveli and Courtallam where cheap and wholesome food is served to the man in the street. Apart from the running of Catering Courses, propaganda throughout the State of Madras during the famine period on the use of wheat and wheat foods were demonstrated.

Central Social Welfare Board.

The formation of the Central Social Welfare Board in 1953 under the dynamic leadership of its Founder Srimathi Durgabai Deshmukh envisaged a programme of assistance unknown from Governmental level ever before in the country. The Welfare Board firstly with

its formation of panels which toured the length and breadth of the country observed in the reports of the many institutions, there were a few which could be considered as pilot projects and training Centres and the reports of the panels and the formation of State Social Welfare Advisory Boards and the giving of large amounts to welfare institutions to improve their standards, to take in more and to increase their strength, to appoint trained personnel were the highlights of the formation of these Boards. Apart from Community and Welfare Extension Projects that were being organised under Government aegis, where the people's contribution by way of land, building, labour, service and materials was, has been the unique way of harnessing the people's assistance. Welfare work chiefly in opening Schools, Maternity and Vocational Centres, Library and Reading Rooms formed the net work in Project and National Extension Areas. The Welfare Extension Projects run since 1954 by the Central Social Welfare Board in each district of each State brought contiguous villages covering a population of 25,000 which are cared for by a group of voluntary workers, to establish Centres—Maternity, Vocational and Adult Literacy—with trained Maternity Assistants, Gram Sevikas and Craft Instructors to care for the needs of women and children. These are organized by Chairman and Women Members of the district.

First Plan Programme

Under the First Five-Year Plan, 333 Centres were brought throughout the Country under the Welfare Extension Projects. Women in the districts, in the rural areas who had never participated in social welfare are leading in this work. The work is carried out in the particular language of the area covered, and the co-operation of the people and the interest in this work is something more than heartening. The villagers—their menfolk are the most co-operative, encouraging training in vocations, collection of monies towards Maternity Centres and adult literacy which are part and parcel of the programme have their support. Activities of the Centres vary and the greatest contribution is the training of Gram Sevaks, Social Workers Maternity Assistants and many destitute women who are manning these institutions on working salary are now reducing the large number of unemployment as well as economic problems that faced so many destitute girls, women deserted by their husbands, and

widows are placed in useful service with a fair salary. The procedure was 50 per cent from the Welfare Board, 25 per cent from the State Government and 25 per cent from the people and this has been and is successful economically.

The appointment of the two important Committees, the Social and Moral Hygiene and After-Care Committees, again under the aegis of the Central Social Welfare Board and with the financial assistance from the Ministry of Labour, Health, Industries and Commerce, the starting and running with the Government assistance and under the aegis of voluntary institutions, hostels for the care and training and rehabilitation of men and women discharged from prisons and certified schools and from any Correctional Institutions and as well as those from non-Correctional Institutions, Orphanages, Destitute Homes and Institutions for the Blind and Deaf where the inmates are trained in the profession, where they earn a living and are able to maintain themselves. This is a most vital step to full rehabilitation and economic security. The Planning Commission has set aside several Crores of Rupees on this.

Institutions for the upkeep of the Blind, Deaf, Mentally Backward and Physically handicapped are on the increase with the greatest co-operation and the assistance of Government and the support of efficient trained personnel. Local Development Funds set aside for giving opportunities of building institutions with the assistance of the people. A ceiling grant of up to Rs. 10,000 is given by the Government and this has brought into being in the various rural areas Schools, Maternity Centres, etc., where they never existed.

Training of specialised personnel to man these institutions of Correctional and After-Care Work are being organised through grants from the Central Social Welfare Board and the Delhi School of Social Work for "After-Care" and the Madras School of Social Work for "Social and Moral Hygiene" are training personnel. The first training is over and the trained personnel are now in charge of the new After-Care Homes and the second batch are on training.

These are amongst the few of the outstanding organisations in our State and these institutions have played no smaller part in making Madras State a leading welfare State in the country. Enumeration of these activities and programmes are also to be found in other States.



The Indian Leopard. A remarkably beautiful animal, it can be added to the list of fast vanishing animals.

In the past when the proportion of forest to the total land extent was higher and big blocks of forests existed, wild life did have a safe retreat and they could lead a life in ecological equilibrium with their environment. With the gradual opening of the country, by extension of agriculture which brought in its wake, new townships, villages and more roads, this isolation which the wild life enjoyed broke down and man with modern weapons of destruction, seized up with a savage desire to destroy every animal he saw in a forest, upset the ecological balance with disastrous results. In some places wild life is threatened with extinction.

For many researches in the field of natural sciences, study of animal life is necessary. This does not stop with the study of dead animals in museums and elsewhere, but living animals in their natural environments. Such a study will reveal at once that the carnivora do not exist only for being exterminated, but for playing an important role, if allowed by us, in maintaining the balance of life, in controlling the over-population of herbivora whose increase beyond the capacity of forests to feed them, will only end in the destruction of our valuable agricultural crops. Also animal products like hides, horn and flesh have a great economic value. As the sources of supply of these items are not inexhaustible, they should be conserved and managed in a thrifty fashion. Again as a result of scientific advancement, animal products are finding an increasing use in the treatment of human debility and disease.

Flora and Fauna

A Source of Sport and Enjoyment to People

By SRI V. S. KRISHNASWAMY, Chief Conservator of Forests.

Insulin, for instance, which saves every day thousands of human lives, has its source from the dreaded sea-lion shark.

Weakest goes to the wall.

Let us digress a little here to explain how the law of the jungle works. It is the weakest that goes to the wall. It is only the weak and the unfit amongst the herbivora that fall victim to the carnivorous animals. Again it is only the fit and the strong amongst the carnivora that can bag their swift prey and survive in the struggle for existence. Ordinarily wild animals are afraid of man; they avoid him. Only if man worries them they turn hostile. When most of the soft skinned game is killed by human beings, deprived of their usual food, the carnivora, like tiger stay out of the forest and become

cattle lifters. Sometimes if a man becomes its accidental victim, the tiger becomes a man-eater. When once the stage is reached the tiger is invariably killed, sooner or later with the help of modern weapons. A careless shikari who wounds a tiger, and does not follow it to kill is a menace to humanity, because a wounded tiger turns upon man invariably. Again amongst the carnivora there is the equilibrium because they also feed on each other. Thus if left to nature, the wild life inhabiting a tract reaches its equilibrium.

Reverting to the original theme, the wild life of a country is a source of sport and enjoyment to its people; providing a healthy recreation to all classes and an attraction to tourists. Further, State derives considerable



The most beautiful of all antelopes black buck is a native of India.

revenue from the sale of shooting licences, excise duty on export of hides, horns, furs, feathers and other animal products and on the import of arms and ammunition. At the same time, it must be realised that this asset may vanish, unless reasonable efforts are taken for its conservation.

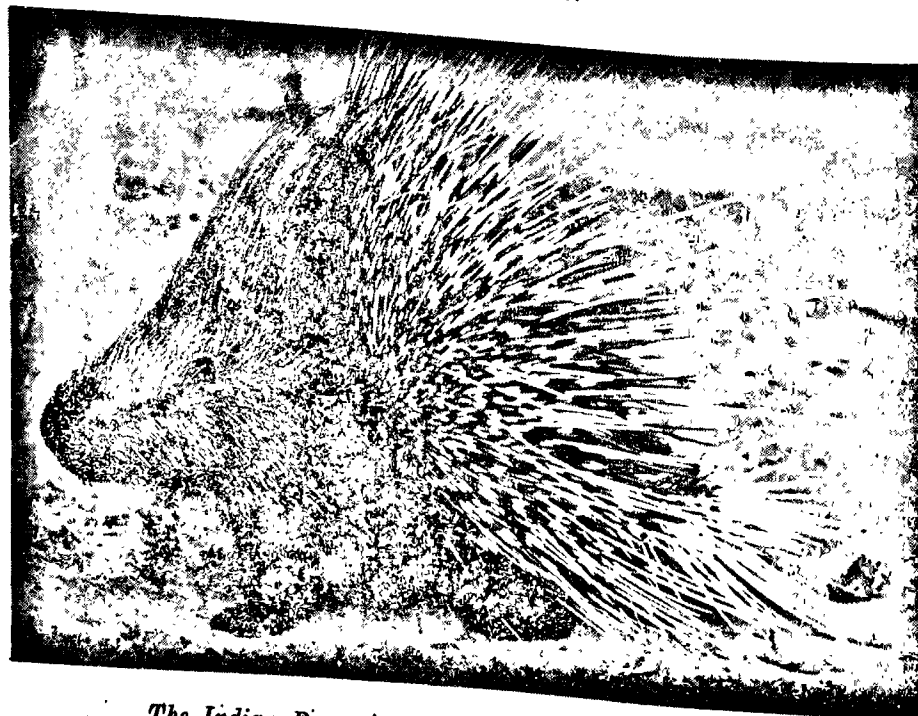
The five hundred species.

India has a very interesting, beautiful and marvellous variety of fauna. Its

Mammalia runs to more than 500 species. It includes the elephant which from time immemorial has been associated with India, its princes and their pageantry. The Indian bison, the largest of existing bovines, the great Indian rhinoceros, the greatest of all the rhinos now inhabiting the world; the gigantic wild sheep of the Himalayas, the swamp deer, the spotted deer, the nilgai, the four horned antelope and the typically Indian



The Otter. It is commonly found in hill-side streams near Pykara and Madras.



The Indian Porcupine—The largest of old world rodents.

Let us Conserve Wild Life

Nature has been kind to us and has endowed our country with rich vegetation and magnificent animal wealth. It is unfortunate that some of the rare species are on the verge of extinction and that others are precariously struggling for survival. Better late than never; we have at least now become aware of the seriousness of the situation and are taking drastic steps towards the conservation of the wild life that still remain with us. The Government have taken many active steps towards ensuring better protection to wild life. The improvement of our national parks and sanctuaries should be important from the point of view of our national plan. The public should recognise the seriousness of the situation and give its willing co-operation to protect wild life in the interests of our national well being.

Perhaps some are under the impression that all wild life is opposed to human life. Let us study the mysteries of creation just for a moment. God who created the gentle lambkin and the lark created the tiger in all its ferocity. He who created the exotic flowers so full of serenity created man with his conflicting emotions. It is a cosmic pattern where every form of life fits in perfectly. It is of vital importance that man does not interfere indiscriminately with the pattern of nature, for God meant the flora and fauna to co-exist with man for man's benefit from every angle—economic, scientific and cultural.

Let us conserve Wild Life which held by us on trust, for the sake of our posterity which will be in a better position to appreciate our endeavours.

—M. BHAKTAVATSALAM



Adjutant stork.

ante-lope or black buck, whose skin our sadhus use, the only representatives of these genera. The carnivorae include the lion and the tiger; the clouded leopard and the marbled cat. There are numerous other species remarkable for their beauty and colouring. Above all, the presence of wild life lends added attraction and charm and further animates our forests and plains.

The close association between animals, human and celestial beings have been vividly brought out on numerous occasions in our Vedas, Puranas and Ithihasas to bear recounting now. Wisdom from the animal world has been treasured in our famous Sanskrit work, the Hithopadesa.

As early as the third century B.C., Emperor Asoka introduced Game and Fishery Laws in his empire. The fifth pillar edict is this.

Gods and Puranas.

Further whenever we see, at least in South India, idols of our gods taken in procession seated on Garuda, Hanuman, horse, lion, hamsa, peacock, mouse and yali (an extinct animal) we are reminded of our animal and bird life and how they are vehicles for the very

gods we worship. The close attachment between our human ancestors and the evolutionary stages are represented by the succession of divine incarnations which had half human and half animal bodies, the Mathsyavathar, the Kur-mavathar, the Varahavathar, which avathar probably took place to collect and life the earth which disappeared shall we say in the etherial ocean as a result of nuclear fission? Again we come to Narasimhavathar. Subsequent avatars like Rama and Krishna are separated from their animal counterparts, but once again in the expected Kalki Avathar the god and the animal, the horse, are again brought together—a voluntary combination.

In a country with such a tradition Wild Life Conservation should not normally be a difficult task.

Any scheme for the protection of wild life would be incomplete without due provision being made for the protection of birds. Apart from any other consideration birds are invaluable in that they protect our crop, orchards, etc., from being devoured or destroyed by hordes of ravaging insects. Birds are mainly responsible for controlling the bewildering multiplication of insect life, which, if unchecked, would overwhelm all life in this planet. As the birds eat a predominately insect food they are an indispensable balancing force in nature. In this context the abundant bird life of our country is a very valuable heritage, which we must nourish and conserve.

Expansion of agriculture has decreased the area available for harbouring wild animals. This fact, to a great extent, has forced the animals to forage for their food, outside the reserved forest with the result the agriculturist has a legitimate grievance. A compromise formula has to be evolved. A probable solution will be to recognise the State, owned forests, where shooting rules are rigidly enforced, as the natural sanctuaries of wild life in this country. But there are difficulties in giving effect to this idea, as the protection achieved will depend on the relative position of forests with reference to the cultivated fields and human habitation. Even so, it will be possible to select some areas for constitution as sanctuaries where wild life will get complete protection without undue detriment to human interests. (Photos by Sri M. Krishnan and Sri A. J. Jalaludin).

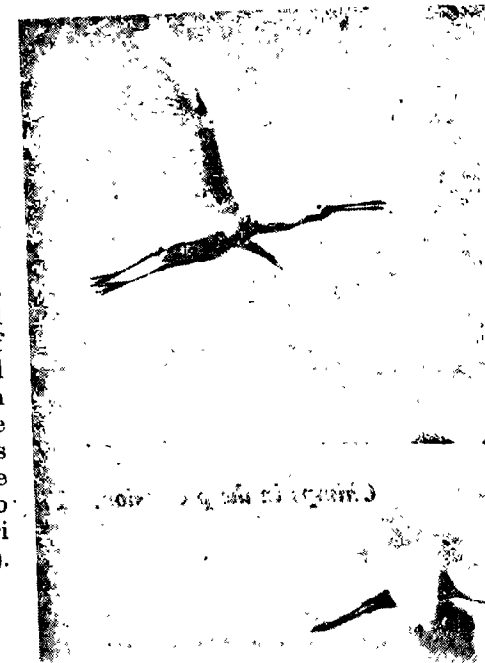
Cottage Industries Training for Vellore Policemen's Wives.

Fifty wives of policemen employed in Vellore will be given training—30 of them in tailoring and embroidery and 20 in mat-weaving—under a scheme sanctioned by the Government of Madras with financial assistance from the Centre, to enable them to supplement the income of their husbands. This scheme involving an initial expenditure of Rs. 4,300 towards sewing machines and looms, etc., and recurring expenditure of the order of Rs. 13,200 towards stipends and raw materials, was initiated by the District Superintendent of Police, Vellore. A cottage industrial co-operative has been registered for the purpose. The tailoring trainees will be paid a stipend of Rs. 15 per mensem for 12 months while the trainees in mat-weaving will get a stipend of Rs. 10 per mensem for six months. The Government of India grant for the scheme runs to Rs. 10,900 representing the entire non-recurring expenditure and half of the recurring expenditure.

Quartz Crushing Plant at Salem

The establishment of a quartz crushing plant at Salem costing Rs. 3.85 lakhs has been sanctioned, with a preliminary loan of Rs. 1 lakh obtained from the Government of India. The primary object of the scheme is to make available to the glass industry of the State, good quality sand, free from iron content, by crushing the Salem quartz.

The spoonbills in flight.



Wild Life: A Valuable Economic Asset

God in His infinite mercy has blest our country with a rich and varied fauna. We can perhaps boast of nearly 500 species of animals in our forests. Our State of Madras is particularly lucky in this respect. On account of the vast variations in his physical features, temperature, climate and vegetation it has several species of interesting animals and birds, each of them acclimatised to its environment. Besides the stately elephant and the awe-inspiring tiger our forests possess a variety of deer and antelopes which include the black buck, the four-horned antelope, the barking deer, the mouse deer, the chinkara and the spotted deer. We have the white bison, the sambur and a few other animals and birds which are found nowhere else in the Indian Union.

Complementary to human life.

It is sad to think that these rare gifts of nature are on the verge of extinction. The Indian lion has become rare and is now confined only to the Gir forest of Saurashtra. The Rhinoceros of Assam, the "Royal Bengal" tiger, the sambur and many



A procession of wild animals of Madras Zoo was taken through important thoroughfares of the City in connection with Wild Life Week celebrations during the third week of October.

other species are precariously struggling for survival.

Wild life is a valuable economic asset to a country and it brings in appreciable revenue. In the field of science also

wild life has its own potentialities. Wild life adds all the life and beauty to our colourful flora. A study of nature will reveal that every form of life in God's creation has its own part to play in the pattern of the universe. Man holds the foremost place in the order of creation. His bodily form is far superior to that of other beings and his intellect surpasses the instinct of animals beautiful and marvellous though it be. Man thus holds supremacy over the animal world, but it is of utmost importance that he does not upset the ecological balance of Nature. God has designed that the fauna and flora should co-exist and be complementary to human life. It is only when man interferes indirectly by his wanton destruction of flora and fauna that wild life can become a danger to human existence.

Although the Government took steps towards the preservation of wild life as early as 1887, nothing much was achieved as public co-operation was not adequate. Poaching was on the increase and shooting with modern aids like the motor car, electric lights and high-powered weapons was a

popular pastime. With the Second World War, came the heavy felling of trees for various purposes and extensive encroachment of agriculture on forest land.

Official measures.

With Independence we have been aroused to the seriousness of the situation and have recognised the importance of Wild Life. In 1952, the Indian Board of Wild Life was formed and "The Madras State Wild Life Board" in September 1954. Drastic steps have been taken towards the preservation of Wild Life by improving the sanctuaries at Mudumalai and Vedanthangal. The shooting of some species of animals and birds is strictly prohibited and the rules about the issue of gun licences are more rigid. As the progressive destruction of forests have accelerated the deterioration of Wild Life, Vanamahotsava has been initiated. Action is also being taken to prevent all further encroachment on forest areas by agriculture. Game associations for the preservation of wild life have been started and the improper methods of shooting of animals are prohibited. Official drastic measures have been taken for the control of poaching and all other illicit activities against wild life. Associations are also formed for the preservation of fish and birds.

We in Madras can be justly proud of the Mudumalai Wild Life Sanctuary. It is in the Mudumalai Range of hills in the Nilgiris and is on the Ootacamund-Mysore road. It is 114 square miles in extent. There is a rest-house at Kargudy and more improvements are being planned with a view to encouraging Tourist Traffic. On the payment of a nominal fee, visitors are given elephant rides through the forest for the observation of Wild Life. Herds of elephants, bison, sambhur and deer can frequently be seen grazing in peace without fear of molestation. Many species of birds and some scarce animals like the Malabar squirrel and the grey langur can also be seen now and again. It is hoped that, with the recent extension of the area, the Wild Life in the sanctuary will multiply and be a greater attraction to the tourists and lovers of Nature.

Vedanthangal Bird Sanctuary

At Vedanthangal in Chingleput district, there is a unique natural bird

sanctuary. This is about 54 miles from Madras and is reputed to have been in existence for nearly 200 years. There in a lake about 74 acres in extent to this village. A group of Barringtonia trees in the lake attracts thousands of water birds for nesting and breeding. Here one can see storks, Egrets, herons and cormorants at their best. The Government have prohibited the shooting of these birds within a radius of 20 miles from this lake. With a view to improving this sanctuary a naturalist has been deputed to study the habits of the birds. Several improvements to the lake and its surroundings are being considered and will soon be implemented.

Subsequently due to economic struggles and foreign influences, we seem to have become callous to our forest wealth and consider it only from the point of view of commerce. It cannot be difficult to awaken our long dormant but long inherited traditions in this regard. Let there be an intelligent recognition of the value of wild life by each and everyone of us. We should do our best in our own way and in our own sphere towards the preservation of wild life. We must also inculcate in our children an ardent love for Nature in her beautiful wild state so that they may be in a better position to appreciate the results of our endeavours today.



With the tiger cubs born at the Zoo are Sri M. Bhaktavatsalam, Home Minister, Sri V. S. Krishnaswamy, Chief Conservator of Forests (left), and Sri K. N. Srinivasan, Mayor.

The Guindy Park in Madras is one of the two places where the Black Buck has survived total destruction. The other place where they still remain is the Kodaikadu Reserved Forest in Thiruthuraiipoondi Taluk of Tanjore district. As the black buck is a freer of open grassy "maidans", its protection is rather difficult. It is proposed to introduce the Black buck in other suitable forest areas of the State.

Intelligent recognition needed

In India our religions have taught us to venerate all forms of life. Our ancient culture and art are highly appreciative of Nature and her beauties.

Loans for Industrial Co-operatives.

The Government have sanctioned a loan of Rs. 1,80,000 to the Perambur Arunthathiyur Leather Workers' Co-operative Society and another loan of Rs. 40,000 to the Tirunelveli District Co-operative Timber Works, Limited, with assistance from the Centre, to strengthen these industrial co-operatives. The Leather Workers' Co-operative will go in for land buildings and tools of its own to bring the cobblers of the area within its fold and thus enable them to make full use of the servicing and technical facilities available at the Perambur Footwear Centre.



Chimps in the procession. They are nearest to man in evolution.

A Master Plan to Provide Emergency Relief

Decisions of Collectors' Conference

A master plan to set up Emergency Relief Organization at district-level will be prepared so that the Collectors of the districts can adapt it according to conditions prevalent in their respective districts. This decision was arrived at the Conference of the Collectors held in the second week of October in Madras.

The need for this adaptation will be in the fact that for example an organization meant to cover calamities like floods and cyclone will be needed only in the coastal deltaic districts. Hence the decision to give room to each district to evolve its own pattern of Emergency Relief Organization within the frame work of a comprehensive master plan.

At present if any natural calamity such as floods, cyclones, fires or Railway accidents occur the relief to affected victims is rendered by making immediate arrangements. Some delay inevitably occurs in planning the arrangements after the event has occurred. With a view to avoiding this preliminary delay and also in order to have ready on hand some pre-planned arrangements to meet such an emergency, the Government of India have formulated an Emergency

Relief Organization Scheme both at the All-India level and at the State level. That scheme contemplates setting up of Emergency Relief Organizations also at the district level in each State.

Desilting of tanks.

Another subject which figured prominently in the discussion was the extension of desilting-cum-reclamation of tanks. The Conference was apprised of the phenomenal success of the scheme which was first tried in Chingleput district. Collectors were asked to prepare a list of tanks which could be included under the scheme and to proceed to enlist the co-operation of fore-shore ryots which is essential for the success of this scheme.

There are nearly 24,000 tanks scattered all over the State. They irrigate about 1½ million acres. The present condition of most of the tank is unsatisfactory owing to heavy silting up and consequent loss of capacity which ranges from 25 per cent to 60 per cent with the result that there is considerable gap in cultivation under several tanks.

Under the Desilting-cum-Reclamation Scheme it is proposed to restore

the lost capacity of the tanks, to some extent at least, in cases where there is gap between the registered ayacut and the actual cultivation by removing a part of the deposited silt from the beds. It is not contemplated to increase the capacity above the original designed capacity, nor is it proposed to bring in additional area under any tank and increase its registered ayacut. Main idea behind the proposal is to rejuvenate and revitalise the tanks.

A method of increasing the tank capacity partly by desilting and partly by raising Flush Tank Level and simultaneously raising the level of the foreshore lands to avoid submersion has been found to be quite feasible and economical without any objectionable feature.

Working of Land Acquisition Act.

The Conference discussed at length the working of the Land Acquisition Act and was of the view that a high level sub-committee should be appointed to examine the necessity for revising the Act in the context of the changed set up. This committee will also examine how best to freeze prices of land in the fringes of developed cities and industrial pockets to avoid speculation in such land. For the time being, the Conference recommended

that Collectors should give top priority to acquisition proceedings in the case of land required for industrial enterprises. An allied subject was the very large number of encroachments on National Highways and State Roads pending eviction.

While discussing the subject of Opening of Supply Centres at District Headquarters for Iron and Steel, the Conference came to the conclusion that this will in no way improve the situation so long as the basic fact of short supply remains. As an offshoot, the Conference decided to recommend that 25 per cent of all Government constructions should be made in lime and mortar, so that the drive for restricting iron and cement consumption could be given a psychological fillip.

Among the administrative details which were discussed at the Conference were the limitation of supervision by section Heads in Collectors' offices to eight clerks, the question of giving special allowance for qualified clerks working as Revenue Inspectors and appointment of special staff for collection of loan arrears in the districts.

While on the last subject the Conference impressed on the Collectors the need for a drive to reduce arrears in loans and land revenue.

Mr. Kamaraj, Chief Minister, winding up the proceedings of the 2-day Conference of Collectors at the Rajaji Hall today, stressed the need for the administration to be responsive to public opinion. The Conference had enabled the Government to assess the needs of the people through the views and suggestions expressed by the Collectors. He had great faith in the efficiency of the Administrative machinery in the State, and he believed that they could promote the best interests of the people by making it also responsive to public opinion. This was the purpose of the Conference and he was glad that it had proved itself a great success.

Small Savings Scheme.

Earlier, the Conference discussed the organisational set-up and administrative details needed to intensify the Small Savings Scheme in the State.

A target of Rs. 12 crores has been fixed to be collected during the year through Small Savings and a provi-

sional break-up of this target among the various districts was furnished to the Collectors.

The Conference recommended that a special drive lasting about a fortnight should be launched in each district, immediately after the harvest of the main crop of the district. During this period the entire District Administrative Machinery, it has been recommended, may be made use of on the lines of the State Loan drive.

The Agency System under the Small Savings was gone into fully and it was generally agreed that paid employees of the Government except teachers and village officers, could not be permitted to avail themselves of the commission of 12 per cent allowed by Government of India. The Conference felt that institutional or organization agency system permitting municipalities, local bodies, trade unions and women's organizations to avail themselves of the Commission would help the drive. The Collectors suggested that insistence on security deposit in the case of Village Officers, who were handling

(Continued on page 35)

Sathanur Project Almost Complete

The idea of a reservoir across Ponniar was conceived long back by Mr. De Chasel in 1904 and from time to time, several anicut schemes were investigated. However, no scheme fructified on account of several considerations like low financial return, fluctuations of flow in Ponniar, vested interests lower down and so on. During the post-war Grow More Food Campaign, the project was revived and investigated in the year 1949 and the project was taken up for execution under the First Five-Year Plan.

The Sathanur Reservoir site is 4½ miles from Sathanur village and 22 miles from Tiruvannamalai. At the site of the reservoir the river flows through a gorge and drains an area of 4,180 square miles. The dam is 2,558 feet long, 1,185 feet being of earth and 1,373 feet being masonry. The storage capacity of reservoir is 4,600 M.cft. which is capable of being increased to 8,100 M.cft. by installation of crest gates

in the spillway. The unique feature of the project is that the water spread area lies within reserve forest and no village gets submerged.

As the main reservoir is situated in a gorge with rocky margins, the main canal could not be taken directly from the reservoir. This has necessitated the provision of sluices in the reservoir to let down water in the river to be later on diverted into main canal by the Pick up anicut 4½ miles below the reservoir. The pick up anicut is 400 feet long. Six scouring vents each of size 5 feet by 6 feet have been provided in the body wall of the anicut to let down water to satisfy lower down interests. A head sluice consisting 3 vents of size 9 feet by 5 feet 9 inches has also been provided to discharge 400 cusecs to benefit 20,000 acres (16,709 acres new plus 3,291 existing wet). Of these 20,000 acres, 6,800 acres will be in Chengam taluk, 8,500 in Tiruvannamalai taluk of North Arcot District

and the remaining 4,700 acres in Tirukoilur taluk of South Arcot District.

The estimated cost of the project is Rs. 289 lakhs. The additional food grains expected is 9,000 tons of rice annually.

The scheme was sanctioned in July 1954 and the work was inaugurated in October 1954. About 98 per cent of masonry and earth dam works has been completed and the work on canals are also nearing completion.

The outstanding feature about the execution of this project is that the main work of dam construction, pick up weir and main canal excavation have all been taken up simultaneously together with preliminary works like construction of buildings which enable the quick completion of the project before the target date.

(Pictures overleaf)



A meeting of the State Development Board was inaugurated by Sri P. V. Rajamannar, Acting Governor, at Rajaji Hall in the third week of October. The Board meeting of Ministers and Heads of Departments was also attended by the District Collectors.

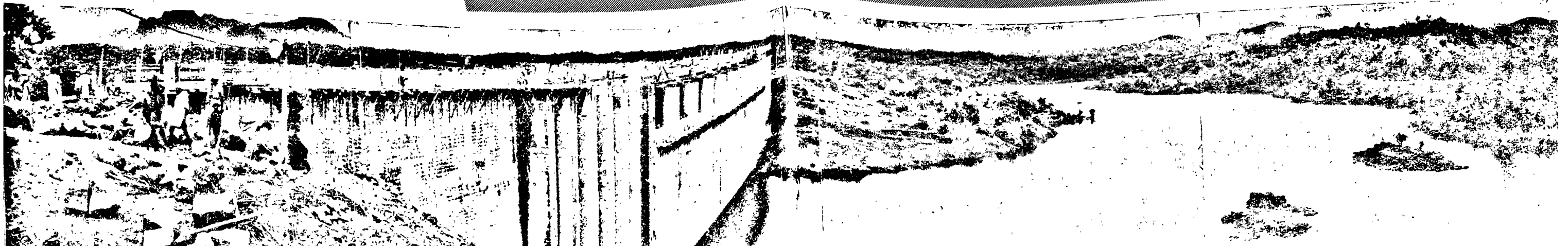
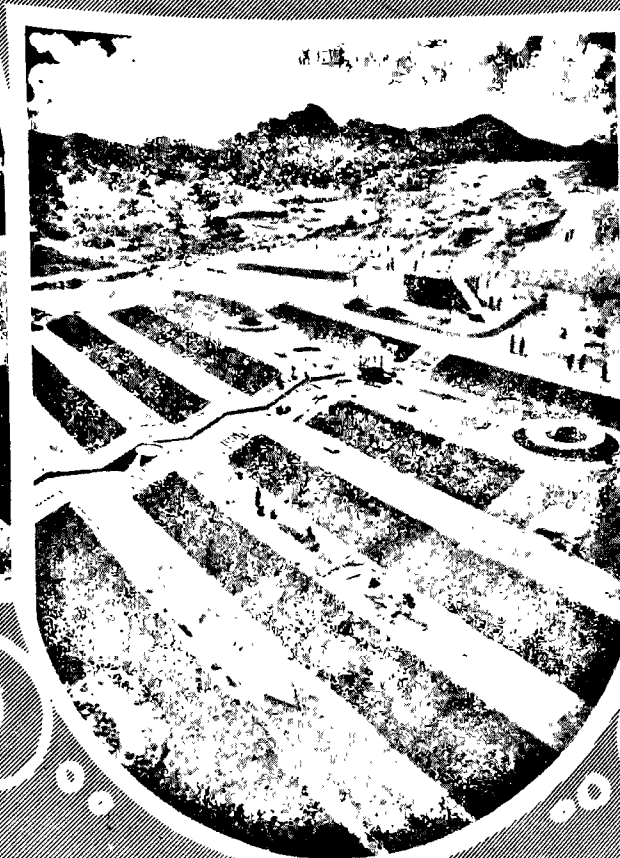
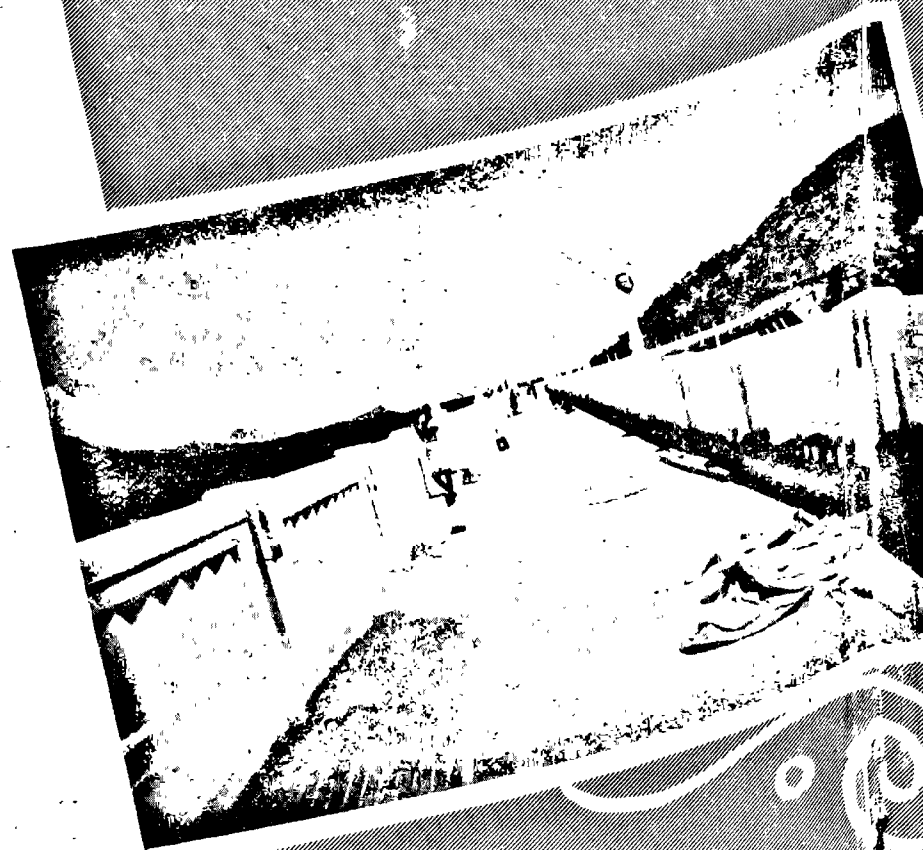
Sathanur DAM

The three-crore rupees Sathanur Project in North Arcot District is nearing completion. Twenty thousand acres are expected to be provided assured water supply by this Project.

The Project will be opened for irrigation on November 19, 1957 by Sri K. Kamaraj, Chief Minister. The Chief Minister is also opening Krishnagiri Reservoir Project on the same day. Both these reservoirs are built across River Ponnai.

Construction of this Project at a site, 22 miles from Tiruvannamalai has made this spot eminently suited for people who want to spend a quiet holiday. A beautiful garden amidst picturesque surroundings is fast springing near the Reservoir.

Pictures in these pages show a panoramic view of the Dam down-stream and the water spread on the up-stream the road bridge and the gardens.



Revival of Art Cottage Industries

By Dr. B. S. BALIGA, Curator, Madras Record Office

There was a time when Madras was famous not only in India but also in Europe for her several art industries carried on in numerous cottages scattered in hundreds of villages. It was the age of man and not of the machine. It was also the age when our Indian rulers and Indian nobles took not a little delight and pride in patronising art, in fostering all that is associated with skill and beauty. No wonder, therefore, that when the English established themselves in India, they lost no time in making capital of these beautiful art industries. So far as Madras was concerned, bales after bales of our finest handlooms, palempores, chintzes and muslins, dyed with the most pleasing vegetable dyes or wrought with the most tasteful, oriental patterns, were exported by them to the various parts of England and Europe. Nor were they insensible to the charming woollen carpetings displaying the most harmonious colours or to the tasteful carvings made in wood and ivory and metalware exhibiting the most exquisite workmanship. Just as the finest handlooms went to deck the persons of princes and other richer classes in Europe, the finest carpetings and carvings went to decorate their fashionable mansions.

Boom period for Madras handlooms

Handlooms, of course, found great favour among Europeans. It is said that the demand for Indian handlooms became so great that, in 1700 a law was passed in England by which all wrought silks, mixed stuffs and figured calicoes, the manufactures of India, were forbidden to be worn or otherwise used in

Great Britain. This law, however, proved of little or no avail against the prodigious importation of cheap and attractive Indian piece-goods of that time.

In fact, the whole of the eighteenth century must be regarded as a period of boom for the Madras handloom industry of all sorts, artistic as well as non-artistic. One cannot read the records of this period without being struck by the great encouragement given to this industry by the East India Company. They formed weavers colonies in or near their settlements; they advanced money to the leading merchants of Madras, of Cuddalore, of Masulipatam, of Conjeevaram, of Madurai, of Salem and of several other handloom centres, for the manufacture of various kinds of cloth; they allowed remissions in times of famine and distress; and they annually sorted, priced, purchased and exported all the cloth produced to England. No Indian prince could have done better for fostering this industry; none could have provided a wider market. Thus, under the patronage of the Company, the industry grew to great proportions.

All this, however, was done not without any selfish motives. England, nay, the whole of Europe, could in those days, get no better or cheaper cotton fabrics than the Indian cotton fabrics, and some of the finest cotton fabrics were then produced in Madras. The East India Company therefore must have made immense profits by their trade in cloth or, as it was then

called, "the Investment." But, in course of time, the position changed completely. The Industrial Revolution came in Europe. Machine replaced man. Chemical dyes replaced vegetable dyes. Raw materials, not finished goods, then became the primary needs of Western Countries and Western industrialists. And with the raw materials and machinery they began to turn out cheap, even artistic, goods in ever increasing quantities. Vested interests now clamoured for Eastern markets. And, all the time, the subtle, powerful, insidious, influence of Western taste and fashion began to invade and undermine all ideas of Eastern taste and fashion among Indians. The rulers thus imposed their imprimatur on the ruled. Under all this stress and strain our handloom industry, our woollen carpet industry, our wood and ivory carving industries and our artistic metal industry, began rapidly to decline. Import of mill-made or machine-made goods now became the order of the day. English as well as Indian patronage was, in this manner, more and more withdrawn from our indigenous art industries, with the result that, we see them occupying a precarious position today.

A note of warning

The gradual languishing of these industries was noticed with great concern by many a thoughtful observer and well-wisher of our country. Towards the end of the last and the beginning of the present century lovers of Indian art like Edward Balfour, E. B. Havell, Edgar Thurston and Alfred Chatterton, sounded a note of

warning saying that, unless something was done to revive the ancient art industries, they would soon sicken and die. And very soon the agitation for revival of not only the art but also the other indigenous industries was carried on by Indian industrialists and Indian politicians and the Government were thereby compelled to look into the matter. The result was the summoning of an Industrial Conference at Ooty in 1908 and the appointment of an Indian Industrial Commission in 1916. Since then, much discussion has taken place on the ways and means by which our art industries can be revived and developed, but very little has been done to make them occupy the noble niche that they formerly occupied in the cultural heritage of Southern India.

Let us first compare the past and the present condition of our art industries before we see what has been done to revive them.

Madras was once celebrated for its palempores and chintzes. The term palempore was in those days applied indiscriminately to all varieties of block printed or hand painted cottons including canopies, prayer cloths, mats, bed covers, screens, handkerchiefs, turbans and cloth for male and female wear. The term chintz was also generally employed to describe any dyed or printed cotton, thereby including in its category all palempores as well. The artistic work by which hand-printing or painting was done was called "Kalmkari" work. The chief centres of the finest palempores or chintzes in ancient days were Masulipatam, Pallakolu and Gollapuram in the north, Kalahasti and Walla-anagar in the centre and Kumbakonam, Tanjore, Pamban and Madurai in the south. The palempores of Masulipatam had a European reputation, especially those which could be used as screens or canopies, printed by hand, designed in beautiful colours and displaying the representations of the Persian tree of life, covered with flowers, parrots and other birds perched or flying among its branches and rendered more picturesque by animals resting under its shade or drinking the limpid waters of a stream. Such cloths were also made to portray flowers or various subjects of Hindu mythology, such as scenes from the Ramayana and the Mahabharata. Their beauty, it must be realised, consisted in the skill and delicacy with which they conveyed the religious or philosophic concepts of the people and

portrayed the natural surroundings amidst which they lived. Indian ideas clothed in Indian garb, could not but win the admiration of all lovers of art, whether Indian or European.

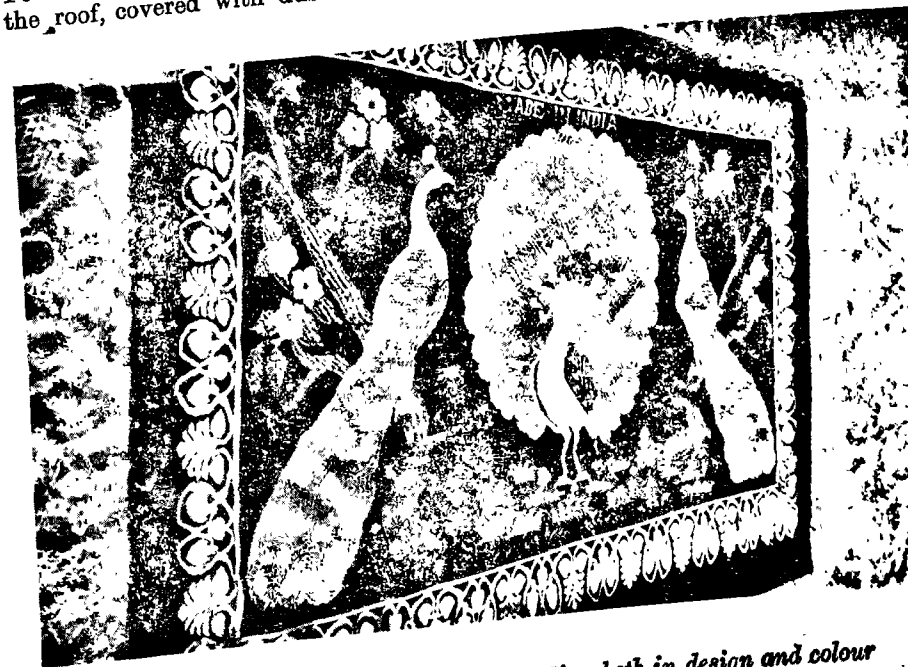
Cotton painting and printing

But all this is now past glory. At present the palempore industry is virtually dead. There are very few families who possess a knowledge of this art; and their workmanship is said to be crude, corrupted by foreign fashion and ruined by foreign dyes. Edgar Thurston, who wrote a monograph on cotton fabrics in 1897, observed that palempore manufacture was fast disappearing everywhere and that there were then only three families in Masulipatam who knew that art. W.S. Hadaway, who wrote a monograph on cotton painting and cotton printing in 1917, remarked that, in spite of the great and rapid development of the European cotton fabric trade, even so late as the middle of the nineteenth century, there was still a considerable demand for palempores, but that, at the time of his writing, the industry was rapidly declining for want of encouragement. Havell is said to have, towards the close of the last century, discovered in Walla-anagar and Arcot, in nearly every weaver's house, old blocks of elaborately and beautiful designs, many of them of Persian origin, piled up in corners or on the roof, covered with dust or cut to

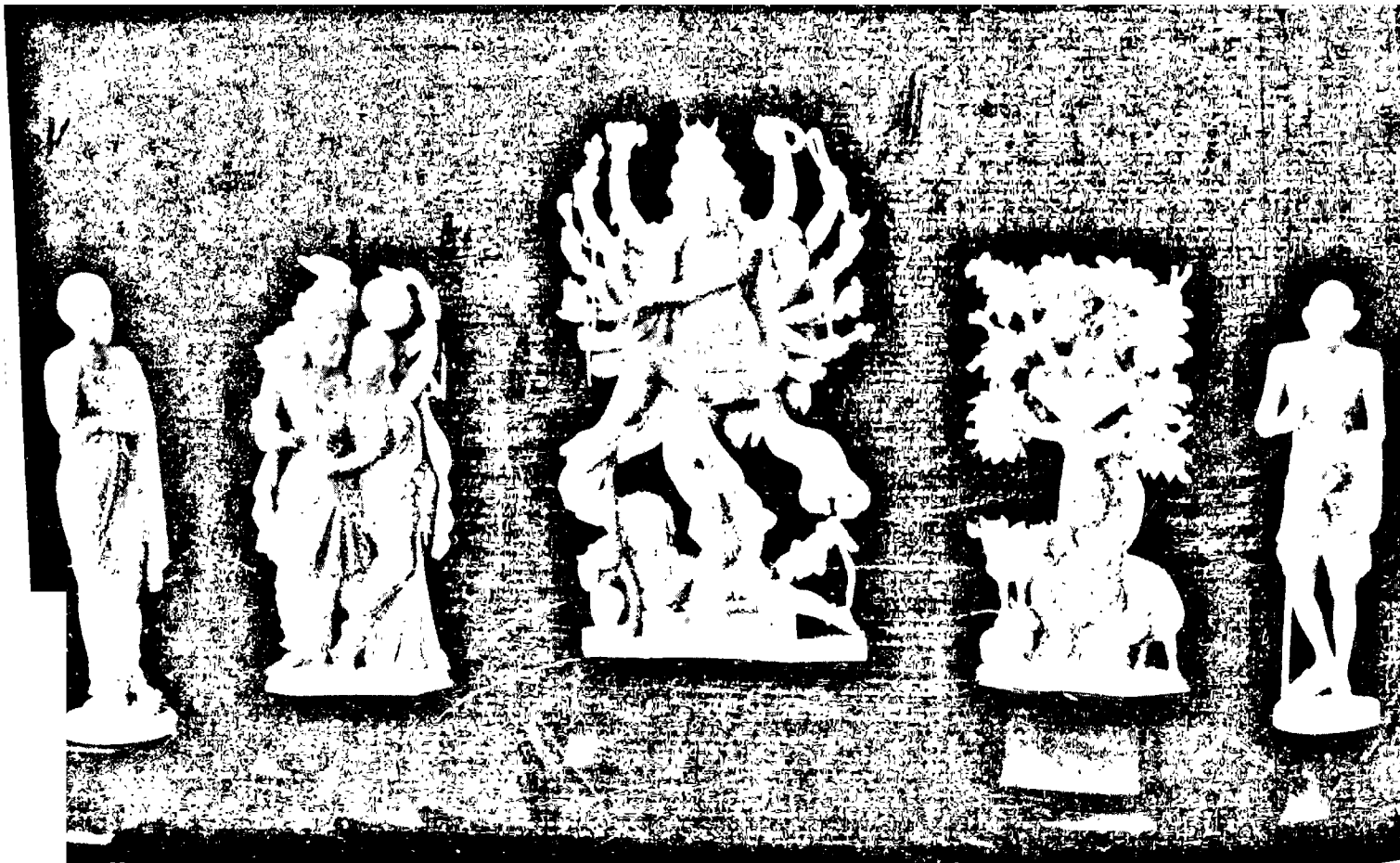
pieces and used for poor patterns. He is said to have salvaged out of these blocks more than 200 splendid specimens, which now occupy an honoured place in the Madras Museum. It is not surprising, therefore, that in 1928 the Special Officer appointed to enquire into the condition of the Cottage Industries reported that cotton printing for which Masulipatam was once famous "is now a dying industry." He said that, although there were two firms engaged in "Kalmkari" work there, there were only two workmen skilled in the ancient art of making palempores. It does not appear that the conditions are better in other districts.

Arni Muslins

Another cotton fabric industry for which Madras was equally celebrated was the manufacture of muslins. The principal centres of this industry were Arni, Kancheepuram, Kalahasti, Coimbatore, Salem, Tanjore and Madurai. It is said that the muslins of Arni made of fine handspun yarn, were inferior only to those of Dacca and that, even so late as 1851, they won the admiration of all at the Great Exhibition held in London. There has no doubt been a great falling off in this industry, but still it cannot be said to have very much deteriorated. We can still boast of the finest handloom of Uppada, Peddapuram, Kalahasti, Satyamangalam and Coimbatore going



A woollen carpet which is distinctly Indian both in design and colour



Ivory Carvings which show delicate skill and exquisite workmanship

up to even 200 counts; but these are all made of mill-made yarn. It would, also, appear that their market is now not so wide nor the condition of the weavers, who make them so flourishing.

Closely allied with the cotton fabric industry there was in Madras the dyeing industry which was at one time the "cynosure of neighbouring eyes." There is ample evidence to show that the deep, subdued and composite tints produced by our vegetable dyes were "at once the aspiration and despair of artistic European dyers." Balfour, who had the eye of an artist, attributed the power of colouring beautifully, of achieving a happy combination of tints, to the traditional instincts of Orientalists never to be attained by Europeans by any scientific methods. Again, the fastness of many of our dyes was unquestioned, and the fugitiveness of some of them was ascribed to the desire, then as now, prevalent among some people who wish one and the same cloth to be dyed each time in a different colour. There were indeed fast dyes as well as fugitive dyes but all dyes were, without exception, pronounced by lovers of art to be wonderfully

pleasing to the eye. It is a mistake to suppose, as some have supposed, that their colour scheme was very limited; it might not have been as wide as the colour scheme of chemical dyes, but it was wide enough to cover a large variety of tints.

Dyes they prepared

It is neither possible nor desirable to give here in detail the recipes and processes of manufacture of the various dyes used in the past. They are so many and so detailed that they demand a special note by itself. It is perhaps sufficient to mention here the chief dyes and the chief materials out of which they were prepared. And here it is also worth noting that the dyers knew not only much about colouring materials but also much about mordants. The recipes in use in 1851 were as follows: Kusumba, or red dye of first sort, was prepared from Kusumba or Safflowers and Saffron; Gulumba, or rose dye, from Kusumba and Billakaram; Nauranjah, or orange dye, from Kusumba, turmeric, limes and Billekaram; Pahj from Kusumba, limes and Billekaram; Puckha Karoor from gallnut, alum

and Chirunja roots; Karoorah, second sort, from gallnut, alum and Pathungoo bark; Purple by immersing the cloth dyed red in vinegar; Blue from indigo and Kusumba; green from indigo and turmeric and yellow from Saffron, turmeric and gallnut. For wool a brilliant red dye was prepared from the lac insect; another red dye was made out of chips of Putteny wood; a third red dye was prepared from roots of Papli. Ordinary black dye was produced by putting old pieces of iron into water containing ragi flour and a small quantity of gur; and a finer and more permanent black dye was obtained by putting iron pieces into a cold solution of hera cas (Sulphate of iron), gur and a small quantity of powder of hullah nut.

Edgar Thurston in his monograph on cotton fabrics published in 1897 decries the crude, bright aniline and alizarine dyes which were then fast coming into vogue and praises the cool and subdued compound tints of indigenous dyes. He applauds the beautiful vegetable reds of Madurai and Kancheepuram and admires the lovely coloured saris of

doni, Arni, Kampti, Madurai and Tanjore and the sweet satins of Ayyampet. Edwin Holder in his monograph on dyes published in 1896, gives a description of the various materials and processes by which the dyes in olden days were prepared. Under the indigenous colouring substances he mentions sticklac which yields a very fine crimson dye; Noona plant or Chay-root or Sooranjee which gives a fine clear red; Poorasam flower or Palas flower which gives yellow and orange; Vertangi or Saffron wood chips which give orange and red; the seed of the Jabra plant which gives yellow and orange; Avari or indigo and Pala from which blue is prepared; leaves of the Kasa tree from which yellow is made; Annabedi or sulphate of iron from which black is obtained; turmeric from which yellow is got; Sembrumpatti which, with the Noona-root and Kusumba, yields a fine red and red sanders wood which yields another red dye. Among mordants he mentions appalakaram, Paddikaram (alum), seeds of the Tagarai plant, chunam, Kaddukai (gallnut), Pista (tree gall), sheep's dung, gingelly oil, milk-hedge, lime juice, soda and marking nuts. He remarks that the dyes made out of indigo and the Noona-root are by far the most permanent, and that the permanency of the others depends on the mode in which they are prepared and the mordants used.

Vegetable dyes

We should not forget that this dyeing industry was even more important than the art fabric industry, since it supplied dyes not only to all art fabrics but also to all non-art fabrics as well. It is therefore a pity that it has now completely disappeared. Its decline dates from about 1880 with the importation of foreign chemical dyes. By about 1900 we find that the aniline and alizarine dyes of Austria and Germany had more or less effectually driven out all vegetable dyes from many parts of our State. By 1918 we find that they had scored a complete victory everywhere over our vegetable dye industry. And when, during the Second World War, the importation of chemical dyes became an impossibility and the revival of the vegetable dyes became a necessity, it was found that no one knew the indigenous art of dyeing. The All-India Spinners' Association knew no more than the preparation of a couple of crude vegetable

dyes; and the Department of Industries could suggest only a few bloodless recipes which were found to be practically good for nothing.

Woollen carpets and rugs

The next important art industry, which claims our attention, is the woollen carpets and rugs industry. Madras in olden days was noted for this industry which had its chief centres in Ellore, Masulipatam, Bellary, Wallajanagar, Tanjore and Ayyampet. Balfour pays an encomium to this industry and says that in point of texture and workmanship the carpets and rugs from Ellore and Tanjore were greatly preferred to the Northern Indian Carpets. He also refers to the beautiful South Indian Carpets displayed at the Madras Exhibition of 1857, particularly those from Ellore which were bright and harmonious in colour, and closely woven and dexterously varied in pattern. Havell too, held these carpets in high estimation, and Thurston attributed much of their beauty to their excellence in colouring provided by the vegetable dyes. There were ten principal colours used in their making; white, ivory white, green, orange, rose, red, black, sky-blue, burnt umber and khaki. But the

colours which mostly predominated were the full Indian red, a pleasing orange, a cool low blue, a green of similar gravity of hue and a soft creamy white. The beauty of these colours was not a little enhanced by the charming, skilful patterns of pure Indian origin. The patterns were mostly floral, not geometrical. The carpets and rugs had a great demand in Europe.

Patterns lost.

But to-day this industry has lost much of its charm. Ever since the introduction of chemical dyes the carpets have lost much of their beauty; and ever since the introduction of western patterns and designs and this happened since about 1850 they have lost much of their aesthetic appeal. Moreover, during the last fifty years, on account of the scarcity and high price of live wool, the workmen have largely used dead-wool or chunam wool. And, what is more, the workmen are now putting in less stitches and manufacturing only ordinary carpets. Superior carpets are now made only to order and, even these, can by no means be considered equal to the superior quality carpets made in olden days.



Another Ivory piece of art

And now we come to a group of minor industries for which Madras was once held in high estimation by all lovers of genuine art; namely ivory carving, wood carving, artistic metalware, artistic pottery and artistic toys. None of these industries covered any wide areas; almost every one of them was confined to one or two districts at the most. But all of them showed delicate skill or exquisite workmanship and all of them reflected our culture.

Ivory and wood carvings.

The main seats of the ivory carving industry in the south were Travancore, Mysore and Visakhapatnam. Under the personal patronage of the rulers of the first two States the industry greatly prospered in the past. In Travancore were made palanquins, idols, human forms, animals, birds, fish, fruits, leaves, flowers, creepers and trees of ivory. In 1850 Raja Marthandavarma sent as a present to Queen Victoria an ivory throne elaborately carved and beautifully set with jewels. It was exhibited at the Great Exhibition of 1851 and much admired by the people. In Visakhapatnam also no less exquisite workmanship was shown in floral and artistic decoration work, not only in ivory but also in bison and stag horns and porcupine quills. Much of its beauty however lay in inlaying work. Sir George Birdwood writes that it was applied to the same class of articles as Bombay inlaying, such as



Cotton printing was once a flourishing industry and had European reputation.

jewel cases, work-boxes, desks, chess-boards, etc., and a variety of fancy articles. It does not appear that there has been a considerable falling off in this industry. It is still said to be in a fairly flourishing condition and among the articles manufactured are mentioned fancy articles, idols and pictures of Hindu deities, floral work and miniature engraving of animals, birds, etc. This is perhaps the only art industry which has not been mauled by time.

The same thing, however, cannot be said of the wood carving industry. Its chief seats in the past were South Kanara, Tirupati and Madurai. South Kanara with its abundant forests was at one time the home of the most deft, skilful and artistic wood carvers. These carvers had a Shasthrum of their own which, with wonderful exactitude and keenest technical knowledge, defined and described the various kinds of wood that could be utilised for rough as well as delicate carving. At Moodabidri are some splendid carved pillars in the ruined palace of Chautor, the old local Jain chieftain; two of these pillars are said to bear representations of the "pancha-nariturage," the horse composed of five women. The doors of the old Jain basti at Moodabidri are also most elaborately carved. And even the ancient family houses all over the district display much artistic wood-work, doors, pillars or roofs richly carved. Tirupati too bears witness to the ancient artistic wood-carving industry. Here, it is said, one

can come across wood carving on door frames, lintels, etc., even in the most obscure villages. Madurai likewise was at one time equally noted for wood carving. Beautiful carvings showing artistic skill can be seen in the Kalyana Mahal in the Sree Meenakshi Temple and on the cars belonging to it, and even on the doorways of several ancient houses. All this art is now no more. Alike in South Kanara, Tirupati and Madurai, the wood-carving industry has greatly degenerated. Modern wood-work shows none of the rich massive effect or the delicate workmanship of the ancients. It is now mostly confined to the carving of small idols or the making of toys, utensils and fancy articles.

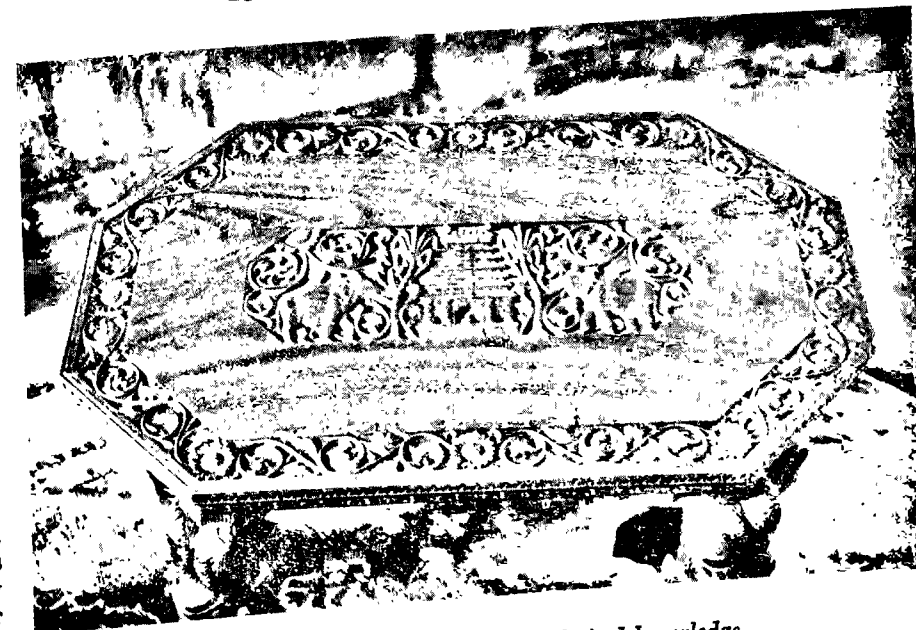
Artistic metal industry does not seem to have suffered so badly. But still it has lost many of its attractions. In olden days Tanjore was much more famous than to day for the manufacture of a large variety of fine metal ware showing a combination of copper and silver, or brass and copper or of graven brass. So also was Tirupati, which made bronze idols; Vellore, which made pierced brass trays engraved with mythological figures; Sivaganga, which made brass models of lizards, cobras, frogs and various kinds of insects; and Kurumbalur, which made brass trays inlaid with zinc. We have also now virtually lost the art of making fine ornamental brass and bronze work in the shape of many-branched lamps, sacrificial utensils and exquisite images. Most of our metalware no doubt still possess some artistic merit, but a great deal of it has lost the religious touch to make any very deep impression on the imagination. One need only compare the old artistic metalware with its present prototype to come to this conclusion.

Glazed pottery.

Nor has artistic pottery fared better. In olden days, there is reason to believe, that our art pottery had many votaries in our State. Some of the vessels found in ancient carins and cromlechs in several districts were said to be of great size and excellent finish. This ancient pottery, it is said, far surpasses any of the same class now made in India and bears a striking resemblance in the great variety of its shapes, its decorations and the quality of the ware, to the fine pottery found in old Etruscan and Roman tombs. The clay of which this pottery was made was of a very superior quality and the articles were

often varnished and incised with linear patterns. Pottery of this type, of which some samples are in the Madras Museum, has now become a lost art. The glazed pottery of Madurai mentioned by Birdwood has also now become a lost art. At present, at Karigiri in North Arcot district, several kinds of vases and other articles with a pretty green glaze are made out of a fine white clay found locally. These articles have been much appreciated and even exhibited at the Wembley Exhibition. At Panruti and Villupuram in South Arcot district, some glazed pottery is made as well as representation of fruits, Hindu gods etc., out of China clay available locally. At Uppinangadi and some other places in South Kanara water vessels and toy representation of articles used for domestic and ceremonial purposes are made in black clay. But, in all these places, art pottery is on the decline and is simply struggling for existence. The potters are poor, unable to find markets and mostly indebted to merchants.

The same atmosphere of want and decadence mars the picture of the artistic toy industry of to-day. Before the advent of machine made foreign toys, our ancestors, or such of them as had any artistic taste, must have taken not a little interest in encouraging the hand-made toy manufacture of our own country. We had no rubber, celluloid or tin toys, but we had an ample variety of wooden, lacquer and brass toys. We have already seen how Sivaganga was once noted for making brass models of lizards, cobras, frogs, and various kinds of beetles. There is evidence to show that Kondapalle, Nossam and many places in the Visakhapatnam district, were then equally noted for making beautiful wooden and lacquer toys of figures or groups of figures, animals and all sorts of natural objects. There must have been other centres as well of artistic toy-making although we have no definite information about them. However, on account of foreign competition and change in taste, our artistic toy industry soon lost much of its market and it is now only pitifully struggling in Sivaganga, Kondapalle and a few villages in the Visakhapatnam district. Its demand is now chiefly confined to festival seasons at pilgrimage centres. There is little doubt that, for want of encouragement, the industry is now deteriorating.



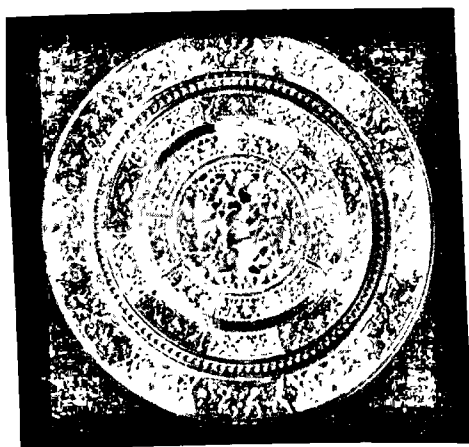
Wood carvings demand keen technical knowledge.

Such was the past and such is the present. Of the several art industries for which we were once famous, our finest palempore and finest muslin manufacture has now almost completely vanished. So also has vanished our much admired dyeing industry which was at one time "the aspiration and despair" of Europe. Our carpet industry has lost much of its fame and much of its pristine purity. Our ivory carving industry has in some measure escaped this rack and ruin but our wood carving industry has hopelessly degenerated, while our artistic metal, pottery and toy industries are now no more than carrying on a precarious existence.

Need for revival.

The question then naturally arises whether any attempts have been made to revive these industries and, if so, why these attempts have proved futile. Now, the Government Textile Institute, no doubt, among other things, affords instruction in handloom weaving and dyeing. But there is nothing to indicate that it teaches the manufacture of fine palempores or the making of fine muslins. And what it teaches in dyeing is not the preparation of indigenous dyes and their application but the dyeing of cloth with foreign chemical dyes. The School of Arts and Crafts provides, in its craft section, instruction in cabinet making, metal working, engraving, enamelling,

lacquering and pottery. The Government School of Technology teaches, among other things, casting and metal working. A few of these subjects are also taught in the various aided Industrial Schools. Besides this, attempts have been now and again made to send out peripatetic parties to the villages for demonstration in better methods of handloom weaving, woollen carpeting, pottery, etc. But these measures, have not, it must be admitted, materially contributed to improve the condition of our art industries. Again, it is well known that financial assistance for the establishment of industries, including cottage industries, is afforded under the State Aid to Industries Act. This has in some measure, generally assisted cottage workers to obtain loans for starting their industry. But the fact that the art cottage industries are not thriving, or showing any signs of promise, shows that the liberalised aid given has proved infructuous in the case of art workers. Further, in recent years, grants have been given by the Government of India for the improvement of handloom weaving industry on co-operative lines and for the development of the Ellore pile carpet and cumbly weaving industries. With the help of these grants the Madras Handloom Weavers' Provincial Co-operative Society has been set up; and some pile carpet weavers' co-operative societies have been started and some cumbly weavers' co-operative societies



The world renowned Tanjore Plate.

have been organised, in some districts. A number of primary production societies for handlooms have also been opened in the districts and all these have been linked up with the Handloom Weavers' Provincial Co-operative Society. The Provincial Co-operative Society has opened several sales depots at important centres. Indeed, in recent years, co-operation has been prescribed as a remedy for all the ills of industry. But there is little to show that co-operative societies have contributed to revive our palempore or muslin industries or to improve our carpet industry in any large measure. There is little to show that either finer or better artistic carpets are now made than those manufactured in olden days. Information available, on the other hand, points to a decay in taste and texture caused by the adoption of foreign patterns and by the use of chemical dyes and dead wool.

Victoria Technical Institute.

If there is any organisation that has done something for our art industries, it is the Victoria Technical Institute. Composed mainly of a body of lovers of art and assisted partly by the public and partly by the Government; it has taken upon itself the collection, the exhibition and the sale of some really fine art productions of our State. By accepting only the best articles and insisting on quality rather than cheapness it has, no doubt, been gradually inducing the craftsman to return to the higher standard of work formerly in vogue. But it lacks a sufficiently aggressive policy, does nothing to instruct the craftsman, to criticise his work or to supply him with raw materials and designs. It establishes

no direct contact with the workmen who remain isolated in the villages and makes no endeavours to hold periodical art exhibitions or to push the sales in every possible market in India and abroad.

What then can be done is a question which demands a careful consideration. The first essential thing to be done is doubtless the creation of a sufficiently large demand for our art goods. In days gone by, this demand was fostered by the patronage of our Indian rulers, nobles and other higher classes, and by the East India Company. But the same was not done by our British rulers, after the Industrial Revolution in Europe.

'Cast off all that is foreign.'

Now is the time to rise from this lathargy and to rouse the enthusiasm of the people for all that is precious and dear to us. We must cast off all that is foreign in the domain of art and put on all that is national, all that reflects the cultural glory of our land. Propaganda and advertisement are powerful weapons in the modern world; and these should be strenuously employed to gain for our art goods the patronage of the well-to-do classes. The radio and the press should be enlisted in support of this national campaign; art festivals should be organised both inside and outside our State on all important occasions; art galleries should be opened and art exhibitions periodically held in every district. The conduct of such displays should not be left to any one but the real lovers of art. It is easy to corrupt tastes but difficult to purify them; and hence the greatest caution is needed in selecting the agency for organising displays. Nor should the leaders of the people fail to set an example to the multitude. It has been said that the drawing room of a Japanese breathes essentially of a Japanese atmosphere, the pictures, the mates, the furniture that adorn it being typically and essentially Japanese. If we can somewhat approach this ideal, it is obvious that our art industries cannot fail to find markets, cannot fail to prosper.

Advertisement in foreign countries.

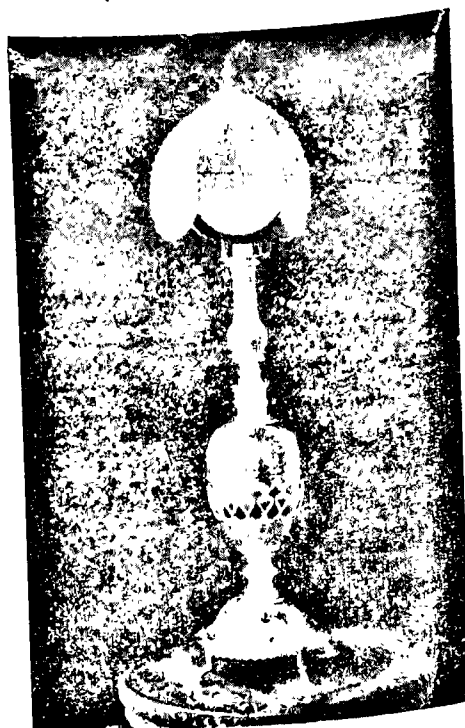
Advertisement and propaganda should also be carried on in all possible foreign countries likely to afford a market for our art goods. It was at one time suggested by Sir John Atkinson, when he was a member of the Government as well as the President of

the Victoria Technical Institute, that for this purpose no better agency could be employed than the Victoria Technical Institute. He suggested that the Government might assist the Institute to send out art travellers to Europe and America, whose sole business would be to popularise our art goods among foreigners. There seems to be every reason at present to predict a success for this scheme, now that the travellers could enlist the aid of our Indian embassies abroad. It is also worth considering whether a permanent display cannot be organised in these Embassies.

It has been again and again urged that, as in the case of ordinary goods so in the case of art goods, co-operative marketing societies should be organised.

It would indeed be a good thing, if this could be done, if the craftsmen could be rescued from the clutches of the middlemen sowcars and induced to seek salvation in co-operation. But it is doubtful, if this could be done at all successfully at this stage, seeing that the majority of them are now improvident, indebted to middlemen, averse to co-operation and ignorant of the first principles of running a business.

(Continued on page 34)



A product of artistic metal industry. It has not suffered badly due to the passing of time.

Balance your DIET...



and your BUDGET

IN these hard days, a balanced diet and a balanced budget seldom go hand in hand as a matter of course. But, with care, they can. Take your diet, of which fats are a necessary and valuable part. India's cattle cannot provide anywhere near the amount of milk products needed to give every adult and growing child their basic need of two ounces of fat per day. And even if it were possible, good ghee and butter would be beyond the reach of the average person's purse.

Now take your budget. All over the world, diet-conscious people faced with the rising cost of living are cooking with wholesome vegetable fats—margarine, shortening and vanaspati—as a good means of keeping meals

nourishing and tasty. Besides being good for our health, these vegetable cooking media are economical—a double advantage to the family budget.

Dalda Vanaspati is made from the purest vegetable oils, to which are added 700 International Units of Vitamin A per ounce, the same Vitamin A content as that of good ghee. In addition, Dalda contains 56 units of Vitamin D per ounce. Hygienically manufactured according to Government specifications, Dalda comes in sealed, double-lidded tins. More and more housewives are turning with confidence to Dalda, and relying on it to put *extra nourishment* into food cooked with it.



HVM. 315-X52

A PRODUCT OF HINDUSTAN LEVER LTD., BOMBAY.

a milk Colony



for Madras

By SRI C. G. RANGABASHYAM, Special Officer, Cattle Colonisation Scheme, Madras.

The unsatisfactory position of Milk Supply in Madras City has been subject to expert investigation from time to time. All these investigations have revealed that the quality of market milk in Madras is very poor and that the milk trade requires a thorough reorganisation. With a view to meet the increasing demand for milk in the City, the Government, as a post-war measure, set up a Milk Factory in 1947 to prepare and put on the market what was known as "reconstituted" milk at a cheaper cost. Imported skim milk powder was reconstituted into milk by the addition of water, vegetable fat and carotene or Vitamin A in certain proportions and the milk so reconstituted was pasteurised, bottled and distributed to consumers, primarily to hospitals. The reconstituted milk was naturally found to be poorer in quality as compared with whole milk and therefore there was considerable public agitation against its preparation and distribution. The Government thereupon constituted a Committee in 1953 under the Chairmanship of Dr. A. Lakshmanaswamy Mudaliar to examine the working of the Government Milk Factory and also to investigate the milk supply position in the City and recommend methods to reorganise the City's milk supply. This Committee recommended, among other things, that the Government Milk Factory should produce "Toned Milk" instead of "reconstituted milk" (Toned Milk being prepared by the addition of pure buffalo milk to skim milk powder in certain proportion so that the resultant

product will contain 3.5 per cent fat and 8.5 per cent solids-not-fat this being more or less equivalent to cows' milk from the nutritional point of view) and that the City cattle from the congested areas should be evacuated and settled in colonies to be formed on the outskirts of the City in conjunction with the sewage farms to be developed by the City Corporation. The Government accepted the above recommendations of the Committee and the Government Milk Factory at Teynampet has been producing "Toned milk" with effect from July 1955. According to the recommendation regarding the colonisation of the City cattle outside the City limits and the general reorganisation of City's milk supply, a comprehensive milk scheme has been drawn up and is in the process of implementation.

City's cattle population.

According to the census figures gathered from the Corporation authorities, there are about 5,193 cows, 7,856 buffaloes and 5,211 calves owned by about 2,000 milkmen. Besides these, there is also likely to be a large number of unlicensed cattle and therefore the milch cattle population within the City can be safely taken as round about 20,000. Among the City milch cattle, about 60 per cent are buffaloes and the rest are cows. Our cattle being notoriously poor yielders, the total quantity of milk produced within the City can be estimated to be 160,000 lb. at the rate of 8 lb. (or 2 measures) per animal per day. This quantity is hardly sufficient to meet the demands of

a large City like Madras and therefore a considerable quantity—about 70,000 lb.—is brought into the City from surrounding rural parts. Out of this quantity, about 30,000 lb. are handled daily by the Madras Co-operative Milk Supply Union, Aynavaram, which is the largest single organisation at present for the City's milk supply. The absence of well-developed rural milk pockets around the City has contributed to the concentration of milch cattle within the City. The concentration of milch cattle, which varies from division to division, is more pronounced in areas like Georgetown, Mint, Washermanpet and Triplicane, and it has created serious problems of public health and sanitation. Not only is the quality of milk produced under such conditions naturally unclean and unhygienic, but also the cattle that produce the milk are uncared for and spoiled, resulting in heavy expenditure for their maintenance and replenishment and the same being recouped by the milkmen by unimpeded adulteration and selling of milk at a prohibitive cost. Small wonder that the price of milk, which was sold at the rate of Rs. 0-6-0 to Rs. 0-8-0 a measure in 1940, has now increased to Rs. 1-4-0 to Rs. 1-8-0 a measure.

In other major Cities.

The unsatisfactory conditions described above have not been peculiar to Madras. Similar problems seem to have existed till some years ago even in advanced Western countries. Even in our country Bombay, faced with a similar problem, has tackled it

successfully and Calcutta is going a head with a major milk scheme and Delhi has planned a milk scheme on a gigantic scale.

The Government of Madras have, after careful thought, come to the conclusion that the only solution for reorganising the present milk supply in the City is to set up a cattle colony outside the City limits and also to develop rural milk pockets and collect large quantities of milk from the rural areas around the City. A scheme costing about Rs. 123.5 lakhs has accordingly been drawn up and included in the Second Five-Year Plan. The aim of the scheme is not to eliminate the milkmen by purchasing their cattle, but only to give assistance to them on the right lines to enable them to do their business on a properly regulated basis.

A 600-acre plot has been selected in Madhavaram Village on the Madras Red Hills Road—about seven miles from the City for locating the cattle colony. The scheme aims at evacuating all the City cattle from the congested areas of the City and at the same time offer accommodation for 4,000 milch animals together with their owners in the cattle colony. The scheme being essentially a milk-trading scheme, it will not be advisable to settle all the displaced cattle in the colony irrespective of their quality. A restriction has naturally to be imposed and only cattle of commercial standard will be admitted in the colony. Ten animals will form a minimum unit of cattle for admission to the colony as also for provision of residential accommodation for the producer or his representative. Producers having smaller number of cattle as are desirous of occupying the accommodation provided in the colony will be permitted to join together and take up a unit. Evacuation of cattle will be done in stages (if need be by legislation) after giving sufficient notice and time. The producers, who are offered accommodation in the colony, will be treated as "weekly licensees". A flat licence fee (which will be fixed in consultation with the producers) will be levied per adult animal. This fee will include the provision of accommodation for the animals, residential accommodation for the producer or his representative, veterinary aid and artificial insemination service for the cattle. Necessary arrangements will be made for the supply of fodder and cattle feed at

cost price plus a certain over-head charges. The producers will be required to sell all the milk produced in the colony (barring a quantity required for their domestic consumption) to the Government at a rate which will be fixed in consultation with the producers, who will be allowed a reasonable margin of profit. The purchase and sale of cattle, payment to the staff of the licensee and the entire management of the cattle will be the concern of the licensee himself and his men. All accounts will be settled on a weekly or fortnightly basis and the bills shall be paid to the licensees after deducting the value of cattle-feed, licensee fees and other charges due from them.

Developing rural milk pockets.

The quantity of milk produced in the colony from out of the 4,000 cattle will be hardly sufficient to meet the needs of the City. It is therefore imperative to develop other sources from where milk can be made available. The only method of doing this is to develop rural milk pockets outside the City. There are a number of milk co-operatives in the neighbouring districts which can be developed further by offering more facilities like interest-free loans for purchase of milch stock, providing chilling plants at convenient centres for initial chilling of milk and transporting chilled milk in insulated vans to the Central Dairy. These

rural milk co-operatives can be made to develop potential rural milk pockets. The Co-operative Milk Supply Union, Ayanavaram, which has already developed rural collection of milk, is expected to form an integral part of the scheme and be a principal supplier of milk to the Government Dairy.

It has also been proposed to set up a Central Dairy at a suitable place with a pasteurisation plant of a capacity to handle about 1½ lakhs of lb. of milk a day. The cost of the plant is estimated to be about Rs. 15 lakhs. Until such time the Central Dairy is established the plant in the Government Milk Factory at Teynampet will be used for pasteurising whole milk as also producing "toned milk" as heretofore. A well-equipped Dairy laboratory will also be set up to ensure a high degree of quality control. Samples of all consignments of milk will be taken before acceptance in the Dairy and payment will be made only according to standards prescribed and based on the results of the analysis.

Adequate arrangements will be made to bottle and distribute milk to the consumers through the several sale depots that will be opened throughout the City.

800-Acre Fodder Farm.

The Corporation authorities have proposed to acquire a 800-acre plot
(Continued on page 36)



Sri K. Kamaraj, Chief Minister, during his tour of Kanyakumari district declared open Kanyakumari District Co-operative Central Bank at Nagercoil.

To Carry Light to Rural Homes

Home Science Training for Gramasevikas

By SRIMATHI RAJAMMAL P. DEVADAS, Home Economist, Union Ministry of Food and Agriculture.

The launching of the Community Development Programme and the National Extension Services in India revealed that any attempt towards community improvement should take the women of the home along with it. For this purpose, a large number of Home Science trained women workers—Gramasevikas are required. In fulfilment of these requirements, the Ministry of Agriculture, through its Directorate of Extension and Training Centres, established in 1953, 27 Home Science wings all over India. Most of these wings are integral part of Agricultural Extension Training Centres. In each of these wings, 20 Gramasevika trainees undergo a one-year programme. Two of such centres are established for the Madras State, one at Bhavani Sagar and the other at T. Kallupatti.

Scope of Home Science extension.

Home Science can be defined as education for home and family living. It includes the study of many science and art subjects, such as Physics, Chemistry, Biology, Physiology and Bacteriology, Economics, Sociology, Psychology, Art and Architecture. Knowledge of these subjects are applied in the study of Home Science and its aspects of foods, nutrition, clothing, housing, health, family planning, child development, community services and home relationship. These help women to enrich light in the homes, to live within their needs and without waste, and give satisfaction and joy to all the members of the family.

It carries knowledge, from colleges, institutions and laboratories, to rural homes in a form easily assimilable and applicable by families through extension activities. Rural women have opportunities to discuss their problems and seek solution to them. The Gramasevika bridges the gulf between the home and the institutions teaching Home Science. She studies the needs of rural homes and gives

directions to the Home Science institutions regarding the types of instructions required for improving homes. She takes the findings of science to rural homes.

Home Science Extension activities assist the rural families in utilising to the best advantage their fruits of labour in agricultural production. The targets of agricultural production may be easily reached. But their utilisation to maximum benefit to alleviate poverty and enhancing standards of living is not easy unless women are educated along those lines.

The training programme for Gramasevikas include theoretical and practical courses and family fruits of nutrition, clothing for families—selection, construction and laundering, mother and child care, housing and home management, health, sanitation, handicrafts and cottage industry, agriculture, dairy, poultry, bee-keeping, co-operation and extension methods.

Bhavanisagar Wing.

Twenty trainees undergo the Gramasevikas' Training programme in Bhavanisagar. The Home Science Wing is accommodated in six small houses, three for instructors and three for the trainees, so that all of them can live in small houses and practice home meeting activities. The trainees have named their houses as "இன்ப இல்லம்," "பண்பு இல்லம்" and "அன்பு இல்லம்."

All the household duties are performed by the trainees in addition to their participating in class room instructions and village work. Each house is so organised that the tasks of cooking, vegetable cutting, cleaning vessels, cleaning house and serving food are divided amongst the members in rotation.

In the Home Science Wing itself, all the three houses have formed into five committees amongst themselves to look after the family affairs—Health, food, finance, agriculture and cultural activities. One member from

each of the houses works on each of these committees. Thus each committee has three members one of whom is selected as Chairman. Their committees are elected every month by all the members. The group as a whole elects a leader designated as Chief Minister. Through the activities of all these committees and leader, the activities of the Home Science Wing are carried out smoothly in a democratic manner.

Daily routine.

The daily routine starts with the rising bell at 5 a.m. followed by 15 minutes of exercise, and then prayer. From 6 a.m. to 7-30 a.m. which is the busiest period in the individual homes, the groups are engaged in different community duties like cleaning, cooking, etc. Since these activities are correlated with instructions in Home Science, the instructors go round the house to supervise activities in the kitchen to see whether or not the principles of nutrition are applied in preparing menus and preparing meals. She sees that what is taught is practised and what is practised is understood. The nutrition values of the food consumed are analysed and discussed in the nutrition classes. The Magan Choola is used for cooking. Procedures like cooking rice in minimum water, without drained cooking vegetables for the shortest time are used. The bell for breakfast goes at 7-30 a.m. After breakfast classes are washed, and by 8-45 a.m., the class room session commences. Here also the instructors see how the trainees wash their clothes, applying the methods demonstrated by them earlier in the teaching room, whether the clothes had been sorted out properly, the type and amount of soap or other cleaning materials used, etc.

In order to give experience in looking after children, the Home Science Wing brings children from the neighbouring villages three or four times to the centres

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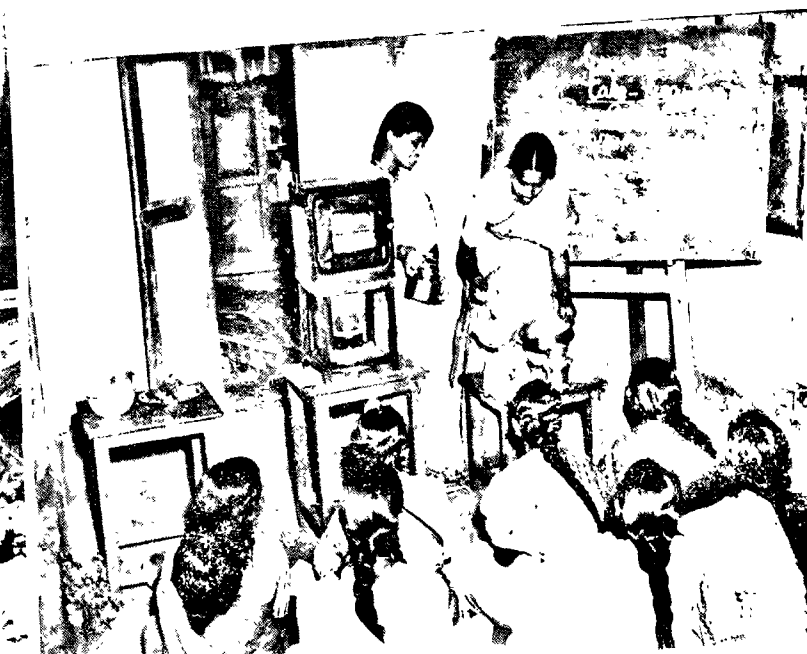


Bhavanisagar Home Science Wing

One of the two Centres established in Madras State to give training to Grama Sevikas in Home Science is functioning at Bhavani Sagar, Coimbatore, under the Ministry of Agriculture.

Twenty Grama Sevikas undergo training here. The Home Science Wing is located in six small houses and the instructors live with them so that home meeting activities may be practised. They learn everything from sweeping, gardening to cooking. They go to neighbouring villages, mix with the womenfolk and organise community singing.

These Grama Sevikas, after their training is over, will go to villages to guide the village mothers to run their household in a more planned manner.



Rehabilitation of Ex-Servicemen

Need to Expand Soldiers' Boards

By Sri D. D. ANUGRAHAM, Deputy Director of National Employment Organisation.

The Soldiers', Sailors' and Airmen's Boards in our country owe their origin to the two World Wars. At the close of these wars the returning soldiers, sailors and airmen had to be welcomed back from hazardous service and those who had suffered a blow physically and mentally in such service had to be rehabilitated. The Nation had to respond to this call and make adequate recompense for those who risked their lives and staggered back to the scene of their own existence in the hope that their service and sacrifice would receive recognition by one and all. The Government of India therefore established the Soldiers', Sailors' and Airmen's Board Organization as early as 1919.

A branch of this Organisation then known as the Madras Soldiers' Board functioned in the Madras State for a decade. Later, it was reconstituted in 1943 and placed in charge of the Civil Liaison Officer who was responsible for the co-ordination of work among the

District Soldiers', Sailors' and Airmen's Boards functioning in every district. The work that was undertaken by the Madras Soldiers' Board developed in an unprecedented manner to meet the growing needs of the ex-servicemen. It was at that stage that a reorganization of the Soldiers' Boards was considered necessary, for expanding their activities and for facilitating a closer liaison between the Army and Civil authorities, so that the interests of the ex-servicemen might be effectively safeguarded. In this context the Government of India proposed that the State Governments should take over the administration of the Soldiers' Boards on the understanding that 50 per cent of the total expenditure be borne by the Government of India and the rest by the State Governments. The Government of Madras took over the Soldiers' Board in Madras State in June 1948 and reorganized them by appointing the Deputy Director of Employment

Exchanges as Ex-Officio Secretary of the Madras State Soldiers', Sailors' and Airmen's Board and the Employment Officers in the district as Ex-Officio Secretaries of the District Soldiers', Sailors' and Airmen's Boards.

Madras Board.

The Organization consists of two sections, namely, the Madras State Soldiers', Sailors' and Airmen's Board and the District Soldiers', Sailors' and Airmen's Boards. The primary functions of the Madras State Soldiers', Sailors' and Airmen's Board are to supervise, co-ordinate and control the work of the District Soldiers', Sailors' and Airmen's Boards in the State and to administer the Madras State Ex-Services Personnel Benevolent Fund which provides for various amenities.

The Soldiers', Sailors' and Airmen's Boards functioning in the districts sponsor the cause of ex-servicemen and their families. But much of the silent service rendered by these Boards is not known to many. These Boards feed and clothe destitute ex-servicemen and their families, support the sick and the suffering and take special care of the disabled ex-servicemen. Financial aid has been extended to 276 ex-servicemen and their dependants during the last year from the various benevolent funds involving a commitment of about Rs. 16,000.

It is not uncommon that ex-servicemen who come to Madras for various purposes are stranded in the City and have none to look up to except the Soldiers' Board which examines their cases and renders immediate relief for food, clothing and shelter. Immediate relief constitutes a life saving factor. During 1956, 251 ex-servicemen were given financial assistance from the Madras State Ex-Services Personnel Benevolent Fund.

The sick and the suffering.

There are ex-servicemen who are sick and suffering and who come to

Madras to get expert medical treatment. They approach the Soldiers' Board for help and the Board endeavours to relieve them of their distress and get them admitted into the hospitals or sanatoria. In 1956, 52 ex-servicemen suffering from Tuberculosis and 12 from leprosy were admitted in the various sanatoria due to the efforts of this Organization. The Soldiers' Boards do not stop with admitting ex-servicemen into hospitals or sanatoria but closely watch their progress and render them financial assistance by way of pocket money of Rs. 5 per mensem per patient. When the ex-servicemen who are treated in sanatoria long for a home visit, their transport charges are being met by the Soldiers' Boards.

Monthly benevolent funds.

There are a number of ex-servicemen and their families, and families of deceased soldiers left in the remotest villages of our State with no one to look up to except the nearest Soldiers' Board that comes to their immediate help. In some cases ex-servicemen and the members of their family who are disabled or infirm have no means of existence but to resort to begging, a menace that confronts modern civilization. One of the ideals of the Soldiers' Board Organization is that if an ex-serviceman comes to a stage of destitution, he should never be allowed to beg, as this would undermine dignity of service in the Armed Forces. Deserving cases are therefore referred to the Madras State Soldiers', Sailors' and Airmen's Board and given a monthly benevolent grant up to Rs. 20 per mensem in the case of other ranks, and Rs. 30 per mensem in the case of Junior Commissioned Officers. These grants are given for a period of six to twelve months subject to renewal if necessary. In 1956 monthly benevolent grants amounting to about Rs. 6,000 were remitted to 53 parties direct by the Madras State Soldiers', Sailors' and Airmen's Board. The Madras State Soldiers', Sailors' and Airmen's Board cannot give grants to all the cases in the State but it does help those who have no means of existence.

Disability Pension.

The rehabilitation of the disabled ex-servicemen adds a unique chapter to the service of the Soldiers' Board Organization. There are those who have contracted diseases in the most trying conditions

and who have been disabled for life. There are others who were victims to sprays of bullets resulting in permanent deformity. Cases of deafness caused by bombing, cases of blindness caused by grenades, cases of amputees whose limbs have been severed still remind us of the gruesome episodes of the war. Most of the disabled ex-servicemen are given a disability pension either for a period or for life. But what is a disability pension for a man who has lost his sight or his hearing. No disability pension can adequately compensate the physical damages one has been subject to. Paltry pensions are supplemented by lump sum grants to enable the disabled ex-servicemen to set up a petty shop or purchase materials or appliances for engaging themselves in certain gainful occupations. Besides, the supply of artificial limbs and hearing aid and equipment constitute a special feature of help to the disabled.

A permanent feature.

Earlier it was said that the Soldiers' Board Organization renders a silent service. A question has been raised in some quarters as to whether the Soldiers' Board Organization should continue to function indefinitely even after the close of the War. As the Armed Forces of our country have come to stay as a permanent feature, the Soldiers' Boards have to play a continuous and substantial role in the interests of the services

and ex-services personnel. Therefore the expansion of the organisation is of vital importance as it is believed that the general welfare and the resultant psychology of the ex-servicemen and their families shall contribute a great deal to the maintenance of a high standard of morale in the home front.

It is for this purpose that funds are raised every year on the 7th of December which is observed as the Flag Day in the whole country. The money that is raised goes to the ex-servicemen and their families in the form of a substantial service so that what is done to the ex-servicemen and their families who are left helpless will pave the way for building up the Armed Forces for the dangerous and delicate task that lies ahead of them.

Opening of Primary Health Centres.

Locations for seven more of the 28 Primary Health Centres proposed to be established in 1957-58, have been decided upon by Government. Four centres having already been opened during the year, 17 centres remain to be located, to complete the 28 centres sanctioned for this year, under the Second Five-Year Plan. The seven centres have been distributed two for each of the districts of Tanjore, Salem and North Arcot and one in Ramnathapuram.



'Ready to enter to rescue the trapped'. Srimathi Lourdhammal Simon looks on the equipment used by Fire Brigade during Fire Services Week Celebrations.



Sri K. Kamaraj, Chief Minister, inaugurated the N.E.S. Block in Saidapet on 14th October 1957, at a public meeting held at Alandur.

(Continued from page 28)

It is because of this that some of the ablest officers have hesitated to recommend co-operative sales societies. Nor have they seen much prospects in co-operative credit societies. They have held that unless the craftsmen are better educated and released from their bondage of middlemen, if necessary, by assisting them with funds to wipe off their prior debts and start on a clean state, co-operative credit societies can never become a success.

At present no better agency for reviving our art cottage industries can be thought of, than the Victoria Technical Institute. It is therefore only proper that the Institute should be encouraged and assisted to expand its activities. Under adequate subsidies it should be possible for the Institute to make a survey of the art cottage industries, to come into closer touch with the craftsmen, to finance them with loans, to supply them with raw materials, tools, and designs and to help them in marketing their goods both in India and abroad. All this would obviously provide credit

and marketing facilities to the workers and free them from the clutches of the middlemen sowcars. And afterwards, when the sales improve and the workers' position also improves, the workers may themselves be relied upon to start co-operative societies with success.

One thing, however, which the Institute should be specially asked to do, is to encourage only those of our indigenous art industries which represent our culture and to see that none of them are corrupted by foreign influences. Foreigners have been struck by the rapidity with which our arts and crafts are losing their individuality and character and getting stifled in a medley of design of foreign origin. This is entirely out of sympathy with our culture and civilisation. Our country is rich in traditions, in monuments, in legacies of a great age of art. Purity of design should be preserved and improved but always with the idea of making it a distinctive national thing. And there is ample material in the plant and animal life of our country as well as in her temples,

her monuments, her peoples, her costumes, her customs, her ceremonious her religions and her philosophies, on which to fashion a grand school of national arts and crafts. We have till now left this business to the school of Arts and Crafts and to the Industrial Schools, without achieving any very substantial results. Havell, who was undoubtedly a great authority on Indian arts and crafts, once gave a warning when he said that such schools would be economically as well as educationally unsound. They would, he predicted, become costly failures; and they would, he said, substitute a commercial and secular system of teaching for an artistic and religious one. It is perhaps time that we took heed of this warning.

Fifty years ago Chatterton said that the decay of our arts and crafts was due to centuries of subjection to a foreign yoke and that the vitalising force of nationality was very much needed to revive them again. Now that we have freedom, it is up to us to re-vitalise our nationalism, to revive our arts and crafts, and to make them yield a rich harvest of cultural glory.

(Continued from page 17)

Large sums of Government Revenue, may be dispensed with and the Conference decided that the Government of India should be moved in the matter.

The Chief Secretary Mr. W. R. S. Sathianadhan proposed a vote of thanks to the Chief Minister and Minister for Finance for guiding the deliberations of the Conference.

Development Board's review

The State Development Board at its meeting today at the Rajaji Hall, reviewed the progress of Second Five-Year Plan Schemes of the Agriculture, Animal Husbandry, Co-operation, Fisheries and Forest Departments as also the minor irrigation schemes during the quarter ended June 30, 1957. Sri C. Subramaniam, Minister for Finance, presided.

The Board directed Heads of Departments concerned and Collectors to see that all steps were taken to expedite the opening of State Seed Farms according to plan.

The meeting emphasised that local manurial resources should be exploited to the fullest extent under the Urban Compost, Rural Compost green manure and other such schemes. The achievements for the quarter, it was noted, fell far short of the targets and it was ordered that special efforts should be made to fulfil the targets, in the context of the anticipated shortage of chemical manures for some time to come.

The Schemes of the Forest and Animal Husbandry Departments, it was noted, were progressing according to the targets set. The propagation of exotic breeds of cattle like the Jersey which is now in force in Nilgiris, it was recommended, should also be extended to Kodaikanal. The all-weather grass tried as an experiment in the Nilgiris, it was announced, has proved a success and it will be introduced in other hill stations of the State.

Good progress was also seen to have been maintained in the execution of Minor Irrigation Works and Desiltation of Tanks-cum-Reclamationschemes. The latter scheme which has been tried successfully in Chingleput district, has been ordered to be put into force in Kanyakumari district this year. Under this scheme tank-beds are deepened to reduce the water-spread and enable reclamation of fore-shore

Twenty-Five National Extension Service Blocks for Madras

Twenty-five blocks were allotted by the Union Government to Madras State for launching National Extension Services this year. These include two blocks allotted to Mudukalathur taluk. By the allotment of two blocks to Mudukalathur taluk, the entire taluk is now brought under Community Development work. The other twenty-three blocks are distributed among the districts as follows:—

Name of district.	Name and headquarters of block.	Area comprised.
1 North Arcot	.. Vembakkam block.	Perungattur, Dusi and Vembakkam firkas in Cheyyar taluk.
2 Do.	.. Pernamallur	.. Pernamallur and Nedungunam firkas in Wandiwash taluk.
3 South Arcot	.. Tittagudi	.. Tittagudi and Sirupakkam firkas in Vriddhachalam taluk.
4 Do.	.. Ulundurpet	.. Elavanasur firka and Ulundurpet firka (part) in Tirukkoilur taluk.
5 Chingleput	.. Saidapet	.. Saidapet, Pallikkaranai and Aminjikarai South firkas in Saidapet taluk.
6 Do.	.. Minjur	.. Medur and Minjur firkas in Ponneri taluk.
7 Coimbatore	.. Bhavani	.. Bhavani firka and part of Kurichi firka.
8 Do.	.. Suler	.. Suler firka in Palladam taluk.
9 Kanyakumari	.. Killiyoar	.. Part of Vilavancode taluk.
10 Do.	.. Melpuram	.. Do.
11 Madurai	.. Palni	.. Palni firka in Palni taluk.
12 Do.	.. Andipatti	.. Andipatti firka in Periakulam taluk.
13 Ramanathapuram.	Kallal	.. Forty-seven villages in Tirupattur taluk.
14 Do.	Manamadurai	.. Seventy-one villages in Sivaganga taluk.
15 Salem	.. Mathur	.. Mathur, Kallavi and Uttangarai firkas in Krishnagiri taluk.
16 Do.	.. Pennagaram	.. Pennagaram and part of Indur firka in Dharmapuri taluk.
17 Do.	.. Namagiripet	.. Namagiripet firka in Rasipuram taluk excepting seven hill villages.
18 Tanjore	.. Orathanad	.. Orathanad, Thondarampatti and Moorthiambalapuram firkas.
19 Do.	.. Avadayarkoil	.. Ponbathi and Velur firka (part) in Arantangi taluk.
20 Tiruchirappalli	.. Turayur	.. Kannanore firka in Musiri taluk.
21 Do.	.. Perambalur (II)	.. Perambalur firka in Perambalur taluk.
22 Tirunelveli	.. Alangulam	.. Alangulam firka in Tenkasi taluk excluding eight villages added to Kila Pavoor block and nine villages transferred to other taluks.
23 Do.	.. Karungulam with headquarters at Saidunganallur.	.. Karungulam and Vallanad firkas in Srivaikundam taluk.

The Board was apprised that some of the schemes were delayed on account of the slow pace of construction works and a suggestion was put forward that the Junior Engineers employed in the N.E.S. areas may be entrusted with construction jobs and it was approved by the Board.

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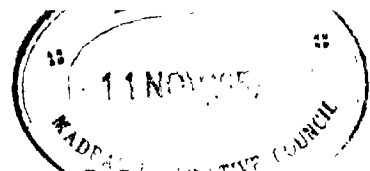
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Mudukulathur Fully Covered by NES

The recent disturbances in the Mudukulathur areas of the Ramanathapuram district have focussed particular attention on the need for the economic development of the areas and their cultural advancement. Whilst the Government have all along been devoting their earnest attention to raising the standards of living, in the countryside particularly it has not been possible to attend to all areas all at once due to limited resources. In view, however, of the special circumstances of the case, it becomes urgent that the case of the Mudukulathur taluk is reviewed on a separate footing. The Government have accordingly bestowed anxious considerations to the developments in question in consultation with the Collector of the Ramanathapuram district and have come to the conclusion that it is urgently necessary to take up development works in the entire Mudukulathur taluk of that district. This taluk has been delimited into three blocks for purposes of development and the National Extension Service is already in operation in the Kamuthi Block of the taluk. The Government trust that with the extension of the National Extension Service Programme to the remaining areas in

that taluk, there will be ample opportunities for the public of that area to canalise their energies to constructive purposes and have, therefore, decided to launch straightaway the National Extension Service Scheme in the other two blocks of the taluk, viz., Mudukulathur and Kadaladi, with which the Government of India have kindly concurred. The Government expect that the local people will co-operate with them, without distinction of caste or creed or political affiliations, in improving the lot of the common man on which depends the entire progress of the country.

(Continued from page 30)

where the trainees participate in children's activities. Children and youths, clubs are organised in the villages also.

Thus all household work is completed by 8-45 a.m. The morning session concludes at 12 noon at which time lunch is taken. During lunch time, the trainees discuss the omissions and commissions in cooking and their achievements in procuring balanced diets and the changes desired in menus, etc. The topics slowly widen into the village and how through garden the

health and the nutrition of the village women can be improved.

After lunch hour, silent spinning begins. This is followed by washing vessels. The afternoon session starts from 2-15 p.m. and extends to 4-45 p.m. On days, village work is not scheduled. Three times during the week, village work is carried out during this period.

Cooking evening meals is accomplished between 5 p.m. and 7 p.m. by the members in charge of cooking. Others let themselves free in the open air for recreation or garden work. Games like throw-ball and Tennis are played. The cogent garden products are carefully recorded to assess the income, through food production. Every Saturday night, the trainees conduct "Bhajans" for the villagers. The cultural programmes are given on every Sunday night. Once or twice during the year, the trainees are taken for study tours.

(Continued from page 29)

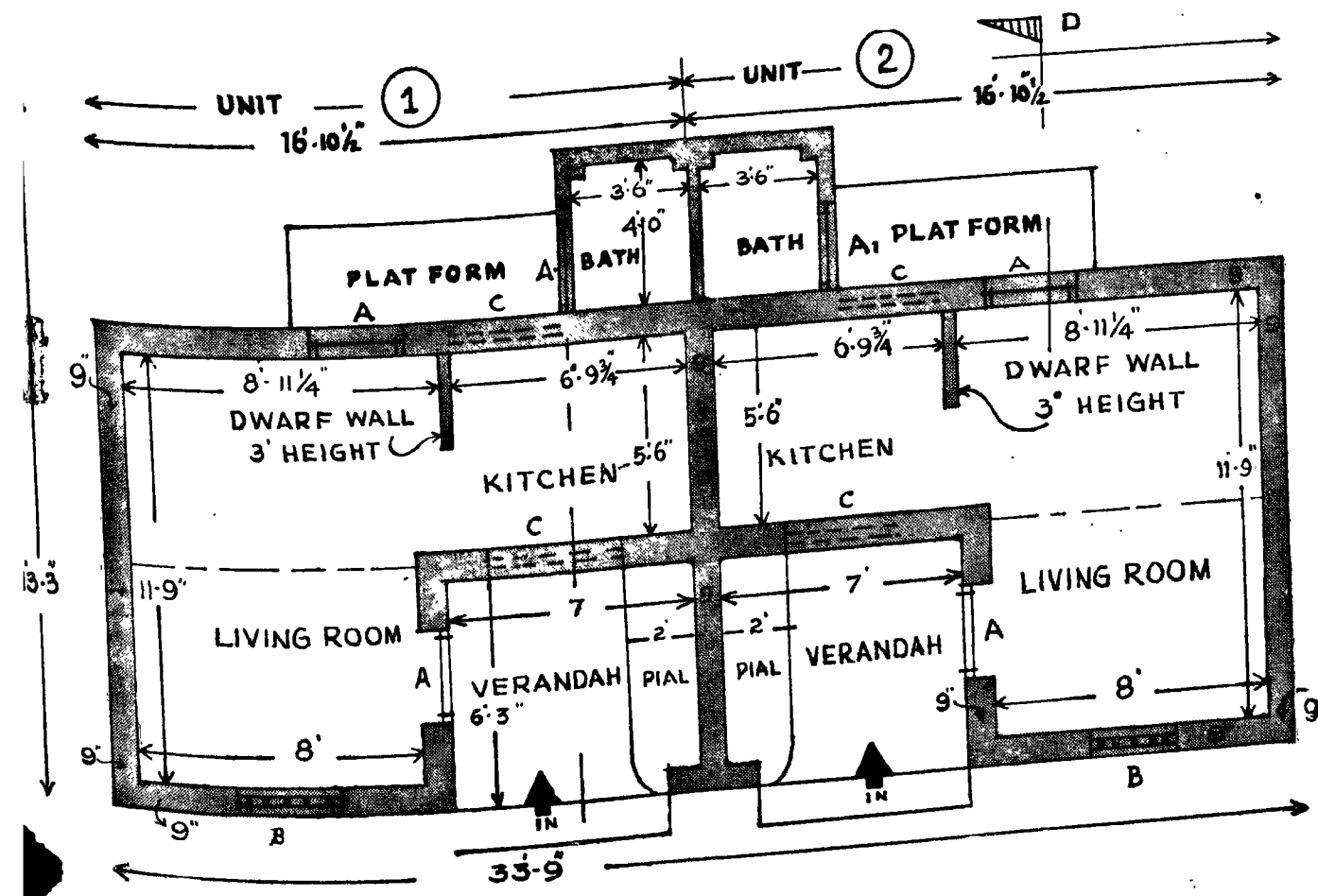
in Kondagayaur village, which is only two miles from the colony site and grow fodder with the help of sewage water. Adequate provision for veterinary aid and artificial insemination facilities will be given in the colony. It has also been proposed to run a salvage farm at Alamadhi, which is again only a few miles from the colony site, where the dry cattle belonging to the producers can be sent for salvage. A calf-rearing unit is also proposed to be set up in the colony.

It is the intention of the Government to set up eventually a Milk Marketing Board, which will be responsible for the supervising of production, collection and distribution of milk throughout the City and perhaps later throughout the State.

It will be seen from the above that a well-thought out comprehensive Milk Scheme has been drawn up for Madras City. It is hoped that unstinted public co-operation will be forthcoming in implementing the scheme. In the welfare State, we are attempting to usher in, the supply of such an essential article of food as milk should naturally receive a high priority and should be the prime concern of the State and the citizen alike.



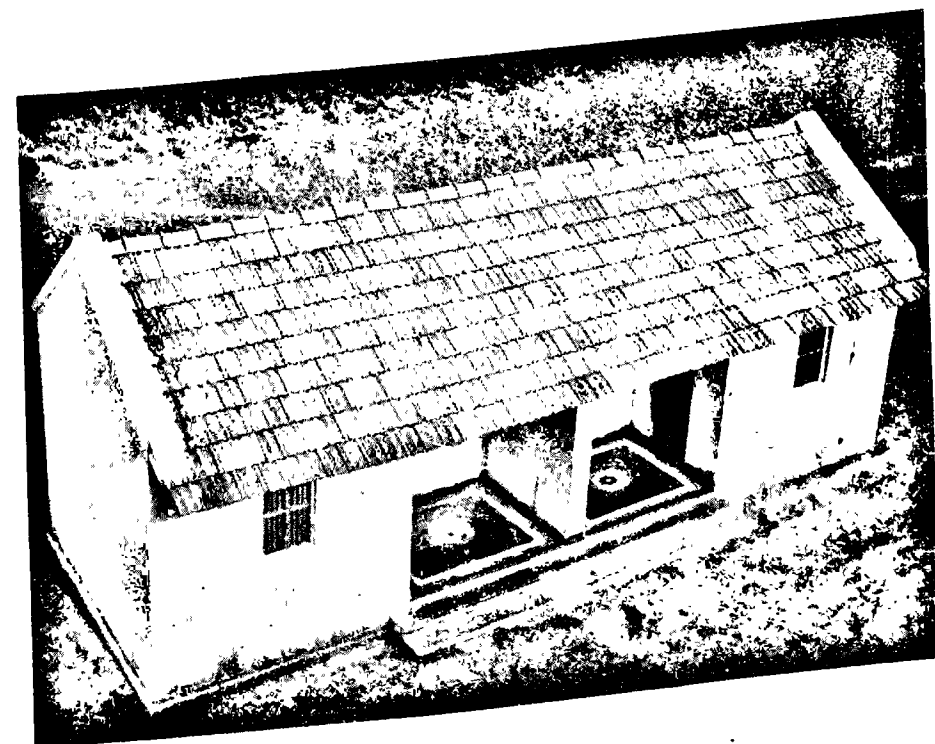
Kumaresapuram, a newly built Harijan Colony, under the auspices of the Co-operative Department, was declared open by Sri R. Venkataraman, Minister for Industries, during his tour of Tanjore district in the last week of September.



TYPE DESIGN FOR HARIJAN HOUSES

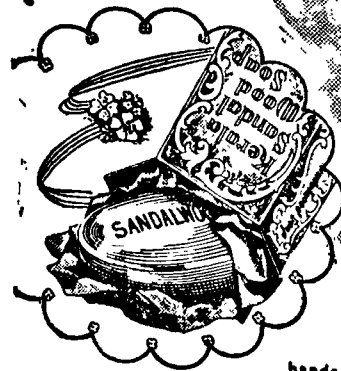
The Government have approved a type design to be followed generally for putting up houses under the Housing Scheme for Harijans, with such modifications as may be found necessary to suit local conditions. The type design (top) and the built house for two families are shown in this page.

The cost of construction of each house is estimated at Rs. 750 of which the Government give a free grant of Rs. 550 by way of materials and the balance of Rs. 200 is met by the beneficiaries by way of free labour, etc. The cost of construction has however been increased in the Nilgiris district due to special climatic and physical features to Rs. 1,000 per house to be made up of the Government subsidy of Rs. 700 and labour charges costing Rs. 300 met by the beneficiaries.



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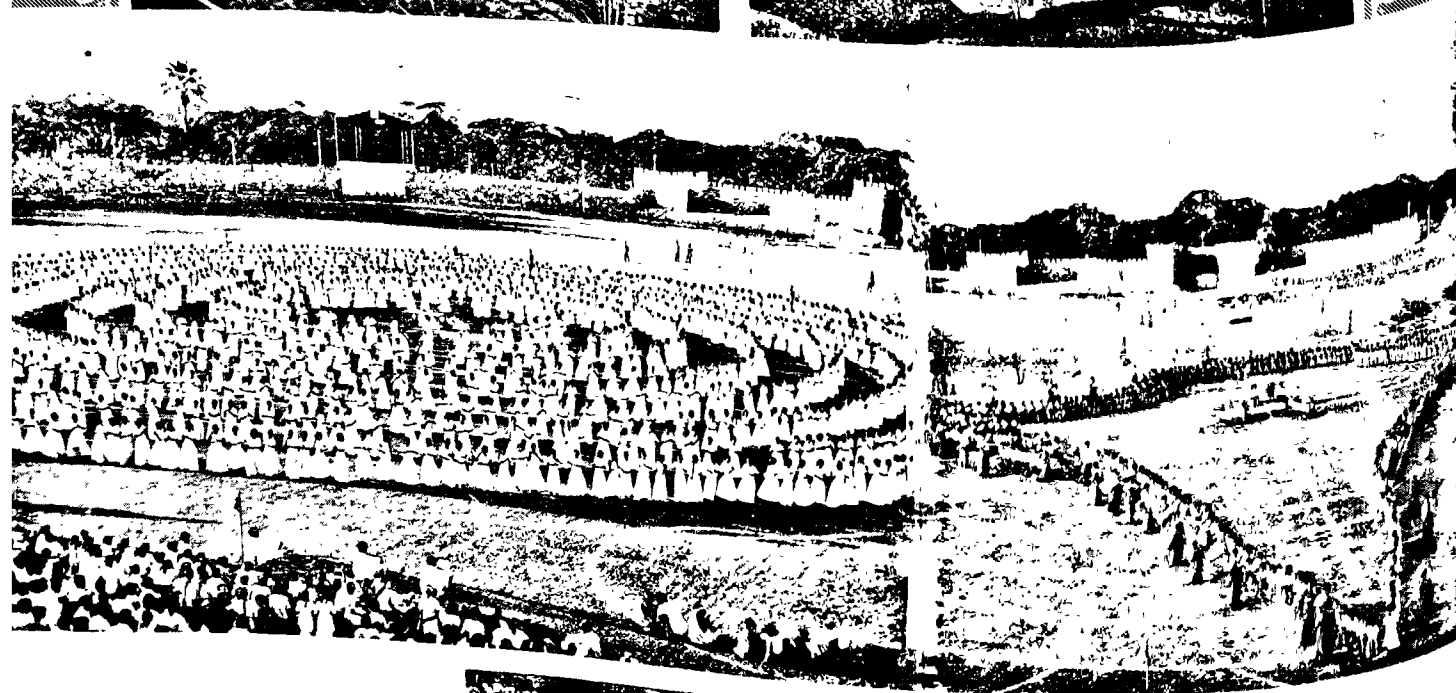
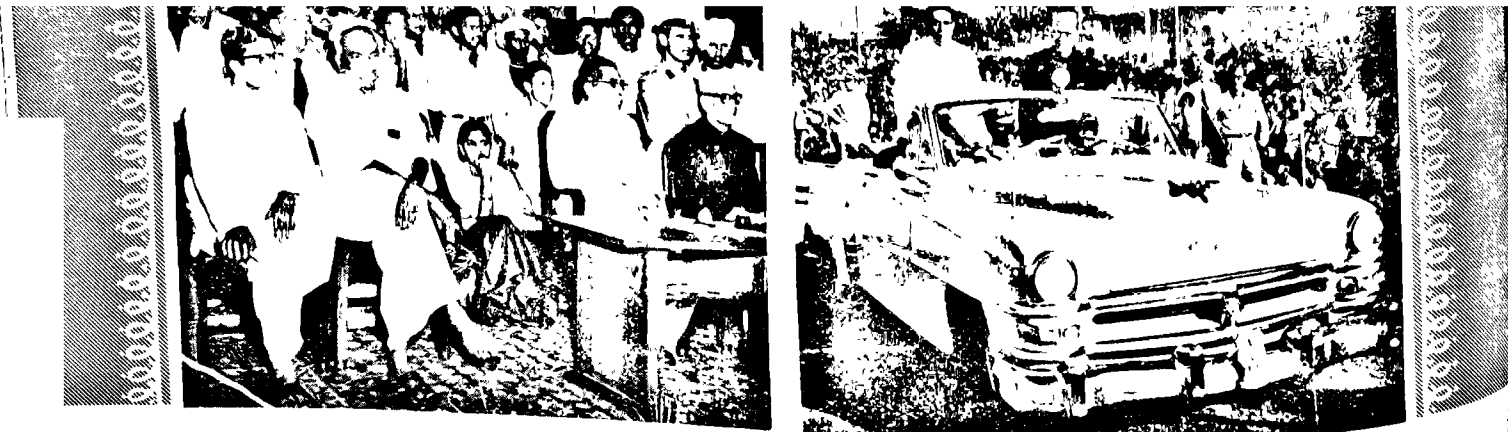
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Children's Day Celebrations



A big rally of children at the Corporation Stadium on November 14, marked the beginning of a week long celebrations. Acting Governor, Chief Minister, Finance Minister and Revenue Minister participated in celebrations. A playground for children of Policemen was opened by Home Minister during celebrations.



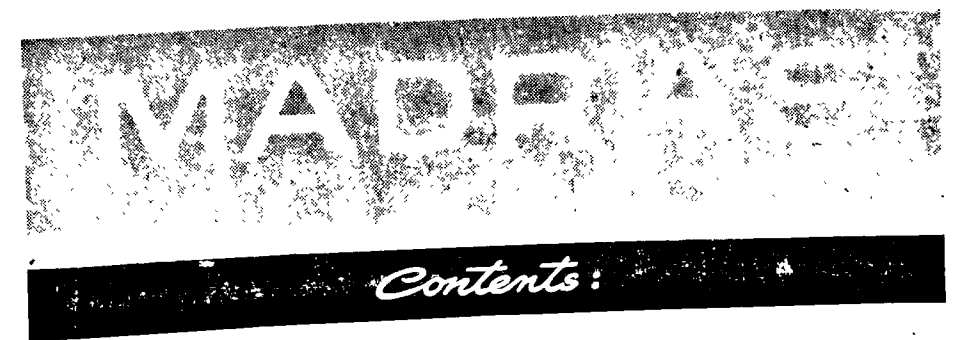
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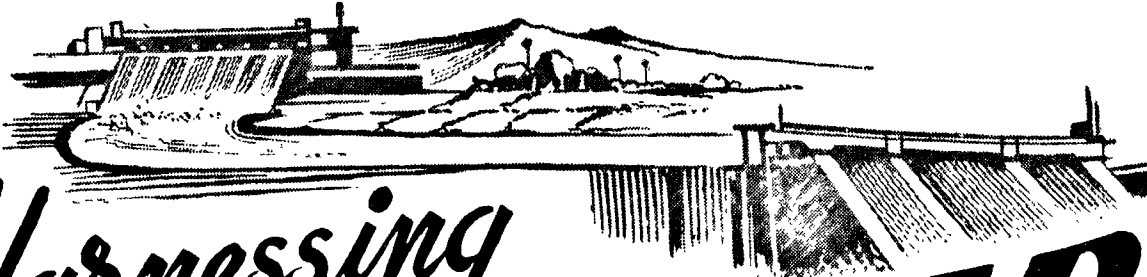


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Cover page: A happy pair of children who symbolise the hope of the Nation. Children's Day which coincided with the 68th Birthday of Nehruji was celebrated all over the country on November 14, 1957. A few articles on the subject are produced in this issue of Madras Information.



Harnessing PONNIYAR

By SRI U. ANANDA RAU, Chief Engineer (Irrigation).

During the First Five-Year Plan period—April 1951 to March 1956—a number of development projects were taken up and the Sathanur and Krishnagiri Reservoir Schemes on the Ponniyar are among them. Before describing the details of the scheme, it is essential to give a brief description of the river Ponniyar, its origin, its course, the area it traverses and where it finally enters the sea.

The river Ponniyar rises in Mysore State in Chennakesava hills, east of Nandidurg. It is there known as the Dakshina Pinakini and this name is thought to have been derived from 'Pinaka', the bow of Siva, because the continuous curve of the two rivers, Northern Pinakini or Pennar and Southern Pinakini or Ponniyar, resembles a bow. This river enters the Madras State territory at a place three miles north-east of Bagalur village of Hosur taluk, Salem district. From here, the river which runs in a south-easterly direction takes a sharp turn and flows in a southerly direction through Salem district. Flowing through deep ravines and narrow gorges, the river enters the North Arcot district. In this district the Ponniyar traverses through thick jungles of the Ponniyar reserve forest and flowing through South Arcot district it finally enters the sea, north of Cuddalore town.

The river from its origin in the Mysore State to its infall into the sea is about 260 miles long of which 53 miles are in Mysore State, 110 miles in Salem district, 21 miles in North Arcot and 76 miles in South Arcot district

of the Madras State. In its course through this State, the river has the Aliyalam and Nedungal anicuts in Salem district and the Tirukoilur and Ellis Choultry anicuts in the South Arcot district, which irrigate extents of 4,718 and 35,012 acres in the two districts respectively. There are also several open channels irrigating a total extent of 28,856 acres. The total existing irrigation under the river is therefore 68,586 acres. The supply in it is affected less by the rain which falls locally than by that at its source in Mysore and it comes down in short floods which rapidly dry up again. Because the floods in the river come down with great suddenness and subside rapidly, there is a local saying that "ere butter (vennai) can melt Pennay will rise".

Genesis of projects

The drainage area of the river at the Sathanur Reservoir site including the area intercepted by the Krishnagiri reservoir is about 4,180 square miles and is under the influence of both the South-West and North-East monsoons, the upper reaches getting more flows from the former and the lower reaches from the latter monsoon. The average rainfall is of the order of 30 to 40 inches annually, each monsoon contributing about half the total. Records of flows at the Nedungal and Tirukoilur anicuts revealed that a fairly good quantity of water was running to waste and that it also pointed out to the need for a storage reservoir or reservoirs on the Ponniyar to afford irrigation facilities for the upland tracts in Salem, North Arcot

and South Arcot districts and also to stabilise the supplies to existing wet lands.

The idea of building a reservoir on the Ponniyar in North Arcot district is an old one. The earliest suggestion for a reservoir is contained in a letter written by Mr. Dechazel. Later in 1920, Sri R. N. Arogyaswami Mudaliar, the then Superintending Engineer, inspected and selected a site, which was investigated in 1926 by Sri L. Venkatakrishna Ayyar, who drew up rough proposals comprising a reservoir of 11,000 m.cft. capacity and a canal to serve 110,000 acres of irrigated dry crops.

This site is the same as the present Sathanur Dam site. Several modifications of this scheme were examined from time to time, but lack of reliable data on river flows and utilization, consideration of financial return, priority for more attractive schemes elsewhere in the State, all those contributed to this scheme being deferred from time to time. Similarly, the idea of forming a reservoir to benefit areas in Krishnagiri taluk is as old as 1875 when the suggestion was made by one Mr. Thomas, the then Collector of Salem district. The proposal was for a reservoir to benefit 50,000 acres. After investigation, plans and estimate were prepared for a reservoir of 6,000 m.cft. capacity to benefit 15,000 acres, the cost being about Rs. 67 lakhs. But in view of the unreliable nature of the data of river discharge and want of finance, the scheme was abandoned.

Consequent on the general drive to augment food production in the State these two reservoir projects were taken

up for active consideration by about 1947, and detailed investigation was made and completed in 1949. Permission was accorded by the Planning Commission to include these two projects in the First Five-Year Plan and accordingly Government sanctioned the projects in 1954 for execution.

Krishnagiri Project

Salem district, receiving low rainfalls to the tune of 15 inches during south-west monsoon and 10 inches during the north-east monsoon periods, is rightly relegated to the ranks of dry districts of Madras State and partial failure of crops is by no means uncommon. On a population basis, the Salem district stands fourth in our State. Most of the arable lands are dry and the ryots have perforce been resigned to the vagaries of monsoon, casting longing eyes on the waters of Ponniyar flowing year after year through their terrain and practically slipping through their lands without benefiting them. The Aliyalam and Nedungal anicuts across Ponniyar within the limits of Salem district, are restricted

in scope since they have been designed as diversion works across a river with flash floods.

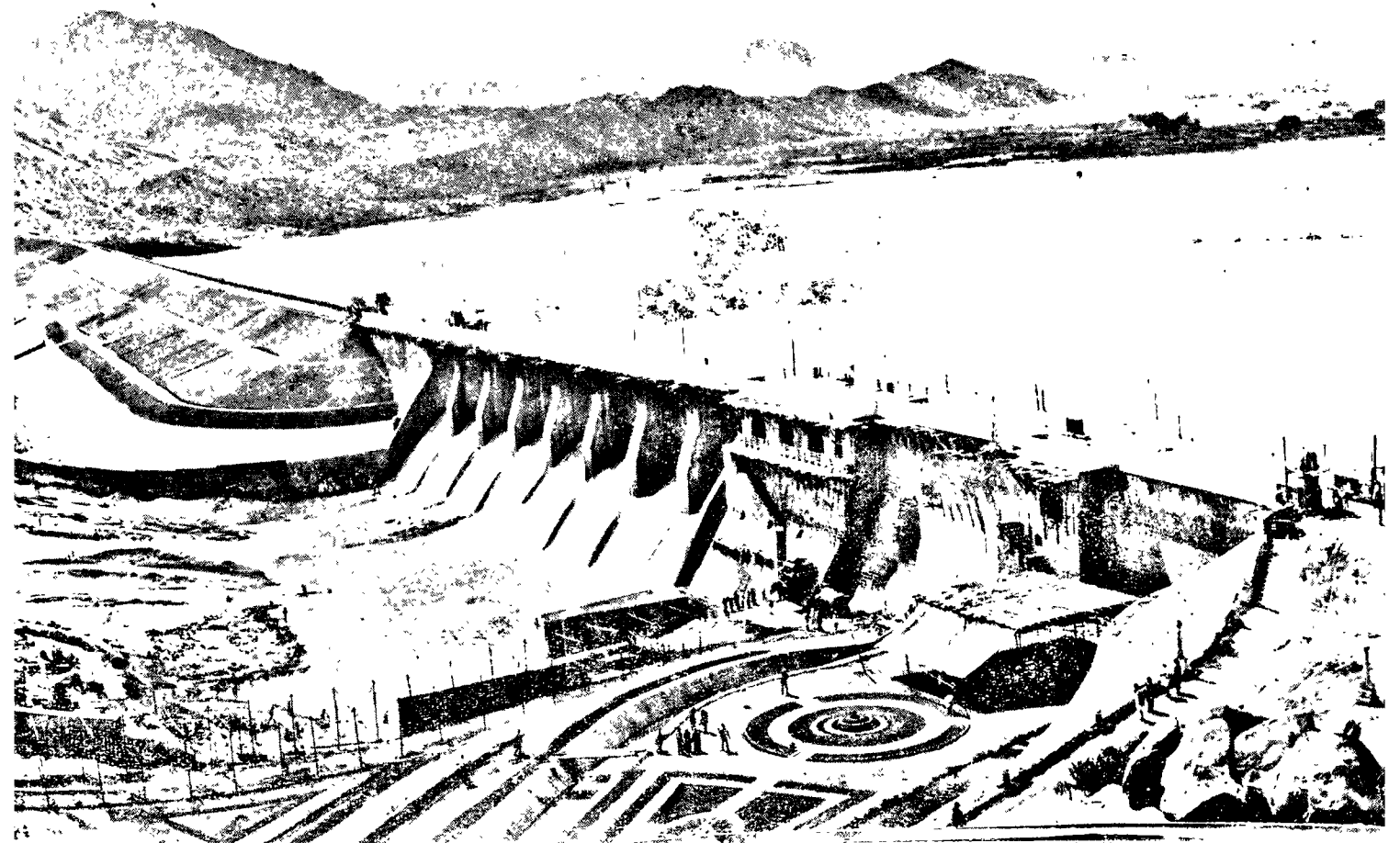
Original proposal.

During the year 1875, Mr. Thomas, the then Collector of Salem district put forth a proposal for a reservoir across Ponniyar. According to the preliminary investigation of 1884, the reservoir Scheme was designed to irrigate 50,000 acres at a cost of Rs. 40 lakhs. As the Scheme was based on insufficient data as to the availability of water for the huge acreage sought to be benefitted and as the financial commitment was high the Scheme was dropped. The food scarcity of the postwar era caused the revival of the Scheme in 1947 and it was investigated between the years 1948-49. The scheme in its present form was sanctioned administratively in G.O. No. 4112, dated 23rd November 1954 for 184.03 lakhs and technically sanctioned by the Chief Engineer for Irrigation for Rs. 202.43 lakhs, for immediate execution under the first Five-Year Plan.

The Krishnagiri Reservoir Project is located across Ponniyar river, about two miles west of 163/4 of the Madras-Calicut Trunk road in the village limits of Periamuthur and Peyanapalle in Krishnagiri taluk. The reservoir is formed by a dam 3,250 feet long and is of a composite type with 2,339 feet of earth dam in the right flank and 911 feet of masonry on the river bed portion. The spillway portion comprises eight vents of 40 feet span which will be fitted with crest shutters 20 feet high. The storage capacity of the reservoir is 2,410 m.cft. The Project is expected to be successful for 25 years in a period of 30 years.

According to the sanctioned scheme one canal from each of the flanks takes off directly from the reservoir. The left side canal, 10 miles 4 furlongs long will irrigate 3,440 acres and right side canal 9 miles 1 furlong long will irrigate 4,060 acres. The total ayacut under the reservoir, all within the Krishnagiri taluk is 7,500 acres, which includes 2,500 acres under existing wet. Efforts to intensify irrigation and studies conducted for the purpose, have now shown that the ultimate ayacut could be 9,000 acres.

Krishnagiri Dam. The project is nearing completion and waters were let out for irrigation on November 10, 1957.



The construction work on the Project was started with the Inauguration of the Project by Chief Minister Sri K. Kamaraj on 3rd January 1955. The progress on the Project gained momentum almost from its inception and it was maintained at a rapid pace all along. I am happy to announce that 2.6 m.cft. masonry dam and 20 million c.ft. earth dam have been substantially completed. The appurtenant works have been coming up side by side. The crest gates will be erected shortly, with this the reservoir will be completed in all respects. Construction on the two main canals, left and right, was also started simultaneously and they are almost completed now. There are 40 masonry works including four bridges and four superpassages on the left main canal and 33 works which include two bridges and two syphons on the right main canal.

Colony for project staff

While giving top priority to the project works as such, the welfare of the Project personnel have also

been accorded adequate attention. A moderate sized Colony for the Project staff and workers was put up quickly and was made available for occupation. Basic amenities like water supply, electricity and sanitary conveniences have also been provided. Installation of a community radio set and similar amenities have contributed to the zest of the workers. The Project is now attracting a continuous stream of visitors and the well maintained Project House is a welcome feature of this Project.

The most distinguishing feature of the execution of this Project lies in the unique procedure of phasing the construction sequence such that the main work and preliminaries like construction of existing colony, etc. have been done simultaneously resulting in appreciable savings in time and money. By this method the construction period was substantially reduced and it has been possible to complete the Project much ahead of the Programme. This involved no doubt, great strain and sacrifice willingly borne by the Project personnel. As the works progressed, further

attention was paid to devise ways and means to speed up the progress of the Project and today, Sir, I am in a proud position to announce the completion of the Project in just about 2½ years after its inception and I assure you, Sir, this speed of construction has been attained in addition to effecting economy all round and with an increase in the scope of the Project.

Rs. 30 lakhs saving

As soon as the Project was started, no time was lost and no energy spared to speedily locate the most economical dam alignment, by considering minor alterations other than the one proposed during the preliminary investigation. Happily, the one finally selected and where the dam has been built has yielded a savings of 10 lakhs in cost. As works progressed, an eye was always kept on economy in big as well as in small items of works, thereby gaining a further savings of 10 lakhs in the head-works and 5 lakhs in canal works. A saving to the tune of 5 lakhs has been effected in the establishment charges on account of the reduction of construction period from 4 to 2½ years. The ayacut

has also been increased from 7 500 to 9 000 acres by a careful lay out of canals and distributaries to secure economy in the utilisation of water. In addition to the benefits to the direct ayacut, the reservoir will also be in a position to stabilise an area of 4 500 acres in Krishna-giri taluk under Nedungal anicut situated 14 miles below the reservoir. The booked expenditure so far on the Project is Rs. 97.03 lakhs with a probable expenditure of Rs. 75.40 lakhs towards land acquisition, crest gates and balance of work, the total expenditure on the Project is expected to be Rs. 172.43 lakhs resulting in a substantial saving of about 30.0 lakhs of rupees.

In the execution of the scheme the broader interests of the working masses have always been kept in mind, by employing the machinery to the minimum and that too only in places where human labour was not suited to the nature of work. Most of the work was done on job-work system, thereby eliminating the middlemen's profit. The magnitude of the labour force employed in the Project will be evident from the fact that the Project has so far utilised

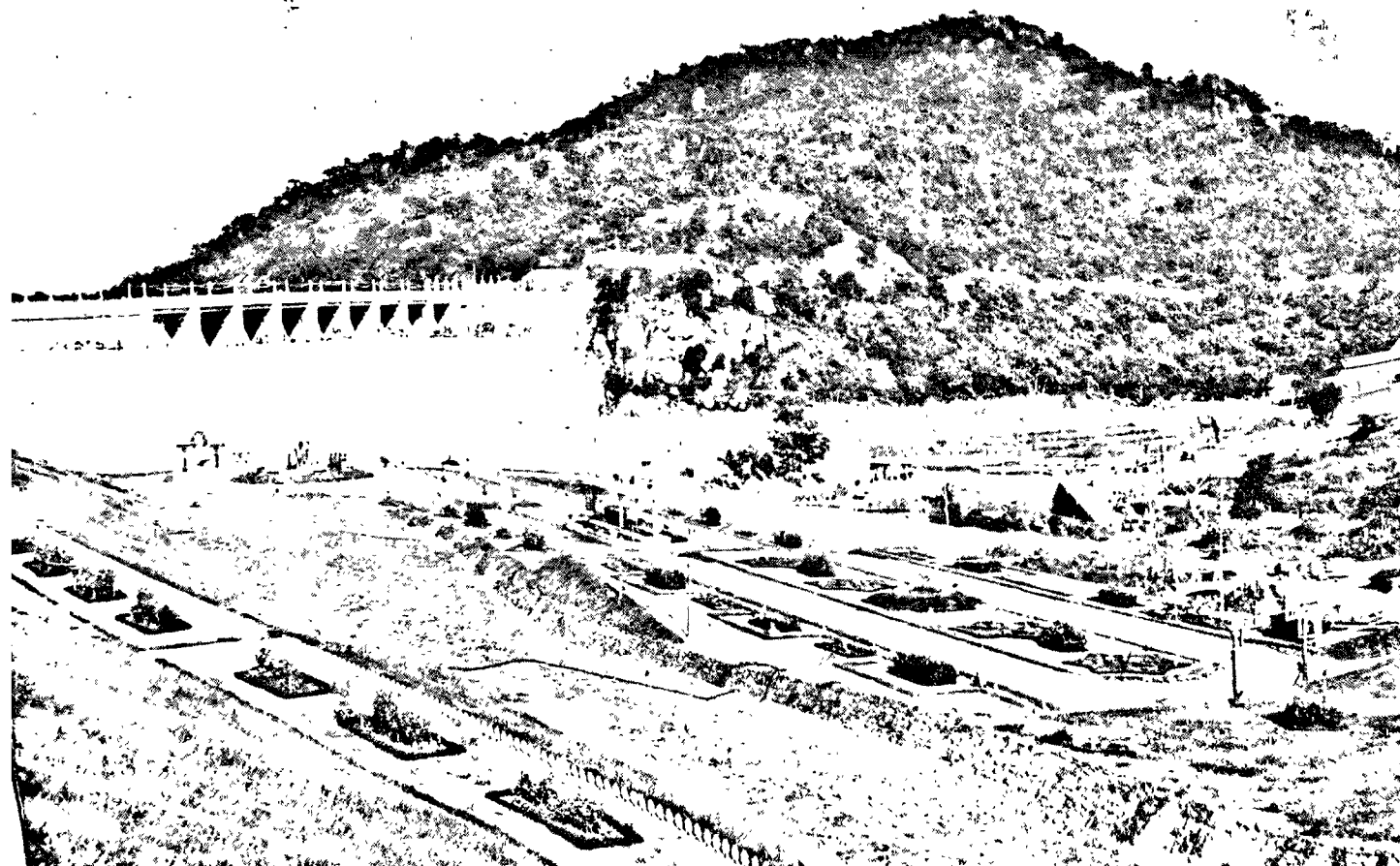
2,50,000 skilled labour-man-days and 14,50,000 unskilled labour-man-days and the total expenditure so far on labour alone is 30 lakhs and the Project has provided work for more than 5,000 persons daily when the works were in full swing. The sight of hundreds of workmen working on masonry day after day, giving shape to the dam slowly and steadily will ever be fresh in the minds of the Project personnel as indeed it will be for every one who had visited the Project during its construction stages.

It is well known that in the implementation of these Projects, repercussions are inevitable and submersion of villages is inescapable. Special efforts have been taken towards the rehabilitation of 555 families which have been effected in the eleven villages within the submersible area of the reservoir. Each affected pattadar is being allotted on an average three acres of lands in the nearby villages. The affected Harijan families have been provided with 32 quarters with the co-operation of the National Extension Service Scheme.

Sathanur Project.

The average seasonal rainfall over the North Arcot district has been unfavourable to irrigation, being as low as 18 inches during South-east monsoon and even lower viz., 15 inches during the North-east Monsoon. The incidence of crop failures has been quite frequent and resulted in perpetual hardship to the ryots of the district. The existing irrigation facilities in the North Arcot district comprises of off takes from anicuts across Palar, Cheyyar and Poiney and from minor anicuts across smaller rivers besides tank irrigation from a large number of them scattered throughout the district. The system do not benefit the ryots of Tiruvannamalai and Chengam taluks. The ryots of North Arcot district have thus for decades been carrying on their irrigation precariously reconciling their needs to the vagaries of the monsoon. They have had no means to help themselves to the water flowing periodically in the Ponnai traversing through the district. The adjacent taluk of Tirukoilur in the South Arcot district could also not boast of any assured irrigation

A panoramic view of Sathanur Dam and the beautiful garden springing up in the foreground



Sathanur Dam was gaily illuminated on November 10, 1957, when waters were let out for irrigation.



in spite of the location of the Tirukkoilur and Ellis Choultry anicuts across Ponnar. This river is too flashy to feed the supply channels taking off from the anicuts to a practical extent.

The plight of the ryots in the rain starved lands in the Tiruvannamalai and Chengam taluks led Mr. Dechazel in the year 1904 to propose a reservoir for utilising the Ponnar waters. Anicut schemes were also investigated from time to time but no scheme ever reached the execution stage owing to several considerations like uneconomical return on outlay, unreliability of flow data in Ponnar, objection by lower down riparian rights, etc. The stagnant state of affairs was happily set right during the post war grow more food campaign drive. A further investigation was taken up in the year 1954. This was quickly followed by the sanction of the Sathanur Project at an estimated cost of Rs. 289 lakhs.

The Sathanur Dam is located at a distance of about 21 miles from Tiruvannamalai town across Ponnar river in a narrow gorge between the Chinna-padi hills on the East and corresponding low range of hills on the west. It is about four miles south-east of Sathanur village situated near mile 5/4 of Than-daramput-Chengam Road. The river drains an area of about 4,200 square miles at the dam site, and has a maximum flood discharge of 281,000 cusecs. The reservoir has been programmed for phased construction. In the first stage which has been just now completed, a full reservoir level of +709.00 giving a capacity of 4,600 million cubic feet has been provided. In the second stage which will be in the nature of a future expansion, a full reservoir level of +729.00 will be obtained with the installation of 20 feet crest shutters over the spillway. The capacity will then be increased to 8,100 million cubic feet. The first stage reservoir will submerge an area of 3,100 acres of reserve forest. No inhabited village will be affected by the reservoir water-spread.

Dimensions of the Dam.

The total length of the dam is 2,580 feet. It comprises of 1,400 feet of masonry dam and 1,180 feet of earth dam. In addition to this, there will be saddle with dykes on either sides in the right flank for a length of 1,738 feet which includes the abutment portion also. The masonry dam houses the spillway section of 432 feet length with

nine spans, 40 feet each and eight piers nine feet thick in the middle and non-spillway section of 290 feet at Left Flank and 678 feet at Right Flank totalling 1,400 feet of masonry dam. In the left flank of the non overflow section, a river sluice of five vents, 5 feet X 6 feet has been provided. The height of the dam above the deepest river bed is 135 feet and 167 feet above the deepest foundation. The volume of masonry involved is eight million cubic feet. The maximum height of the earthen dam above the average ground level is 55 feet.

The margin of the river below the dam are rocky and are rugged for a considerable distance downstream, thus rendering the direct take off from the reservoir for irrigation impracticable. Waters from the Sathanur reservoir will, therefore be let down in the river itself and picked up lower down from an anicut. Diversion for irrigation into the Main canal will take off from this anicut through a head sluice. The pick up anicut has been constructed less than a mile upstream of the Olagalapaddy causeway across the river at M. 36/6 of the Tiruvannamalai-Thaipadi Road. The canal was opened for irrigation of a partial nature on 30th October 1956. The length of the pick up anicut is 430 feet and the

maximum height above the foundation is 25 feet. The canal which takes off from the pick up anicut on its left flank is 22 miles long and irrigates 20,000 acres both in North Arcot and South Arcot districts. It is proposed to irrigate 15,300 acres in Tiruvannamalai and Chengam taluks of North Arcot and 4,700 acres in Tirukkoilur taluk of South Arcot district. First eight miles of the Main canal have been lined with 3 inches thick of cement concrete which has resulted in a saving of sufficient water to irrigate an extra area 1,000 acres. Total length of distributaries in both the districts is about 55 miles.

The Project work was inaugurated on October 2, 1954. Right from that date of the project staff have maintained a rapid progress so that today after a comparatively short construction period of just three years, the reservoir involving eight million cubic feet of masonry and 53 million cubic feet of earth along with eight hundred 22 miles long Main canal, 55 miles of distributaries and innumerable cross drainage works have almost been completed. While maximum concentration was directed towards works the welfare of the Project personnel was not allowed to suffer in any way

The colony for Project staff and workers sprang up in a short time with all amenities like water supply, electricity and sanitary convenience. Community Radio set and allied recreational facilities have helped to ease the monotony of the workers. The large project house which stands amongst picturesque mountainous surroundings and luxurious vegetation and the vast expanse of the reservoir, the lay out of the lawns and the parks will continue to attract a lot of people.

In minimum time.

The outstanding feature of the Project is that the sequence of execution was so planned as to secure maximum progress in a minimum time without in any way sacrificing the quality of work. The main works were started at several points simultaneously as also the preliminary work of colony construction. This method called into play, utmost effort and constant watch in co-ordinating activities at several points, unlike the traditional method which followed the safe method of proceeding from one item to another in the usual sequence of construction. Further as the Project progressed ways and means were devised in the light of the experience gained with a view

to speeding up the progress of the work and economising in cost. Instead of straightway following the alignment approved in the preliminary investigation, an opportunity was taken at the commencement of the target period to secure the best possible alignment by suitable adjustments with the information gathered during the clearance of site and exploration of foundation. Savings to the tune of rupees six lakhs was effected in the choice of the final alignment. At no stage of the progress of work were the efforts to economise the construction cost relaxed. This has resulted in savings of Rs. 30 lakhs in the Head-works and Rs. 10 lakhs in Canal works. The savings in establishment charges amount to 7½ lakhs on account of the Project being completed within three years against the scheduled period of four and half years. The total savings of nearly a sixth of the estimated cost of Rs. 289 lakhs is an achievement which has contributed to the austerity measure in an appreciable manner. This has been made possible due to co-ordinated combination of the various links of the department, viz., the Research, the Designs and the Project branches.

In these days of controversy on the adoption of mechanical means of execution of works in a country where man power is available in plenty, a judicious combination of man and machinery was followed in the Sathanur Project, paying utmost consideration for the utilisation of man power. Only where human labour was handicapped for specialised works were machines allowed to step in. This policy together with the policy of direct engagement of petty job workers on a big scale, enabled the project to maintain a high employment potential in the backward area of North Arcot district. The project has so far obtained 20.65 lakhs of unskilled labour man days with a total disbursement of Rs. 50 lakhs on labour alone. At the peak activity of the Project, the impressive sight of 8,000 labourers moving about on work against the background of the gradually rising structure of the dam resembled swarms of gigantic bees gathering about the formation of a big beehive.

No hardship to people.

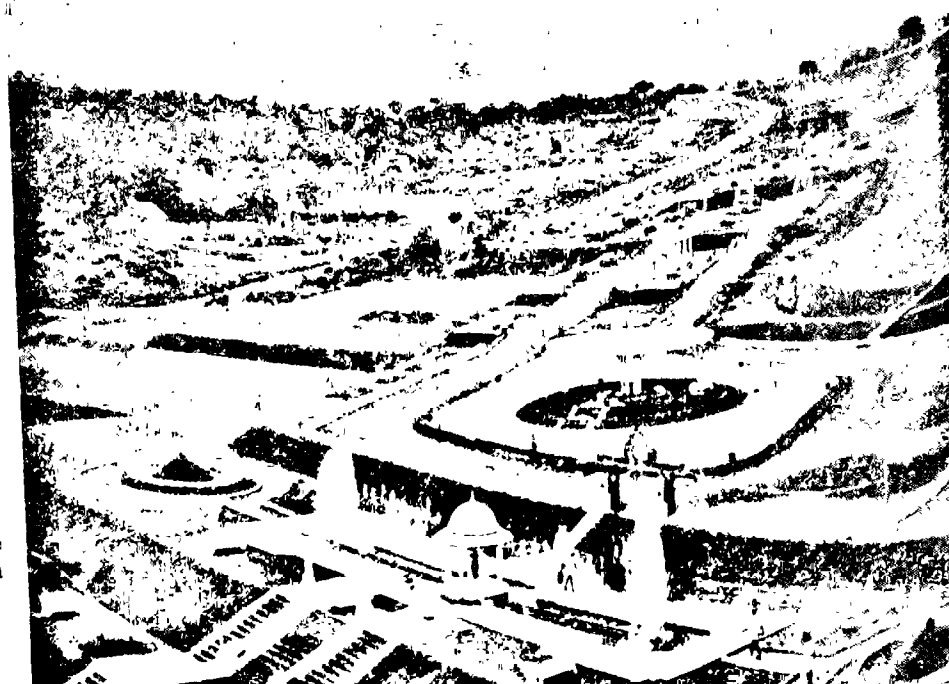
Another unique feature of the Project is that the entire project site lies in reserve forest area and thus the construction of this Project has not in any way caused any hardship to any section of the people, as in the case of other projects which are faced with the problem of rehabilitation of persons displaced from the waterspread areas.

The project staff did not stint under the arduous nature of execution based on the job work system but carried on with excellent team spirit and enthusiasm. The workers displayed a high morale and toiled cheerfully and diligently. All of them have reaped the concrete reward of having completed the dam in a record period of three years with a total savings of Rupees 40 lakhs on works alone.

Amaravathi Main Canal Opened

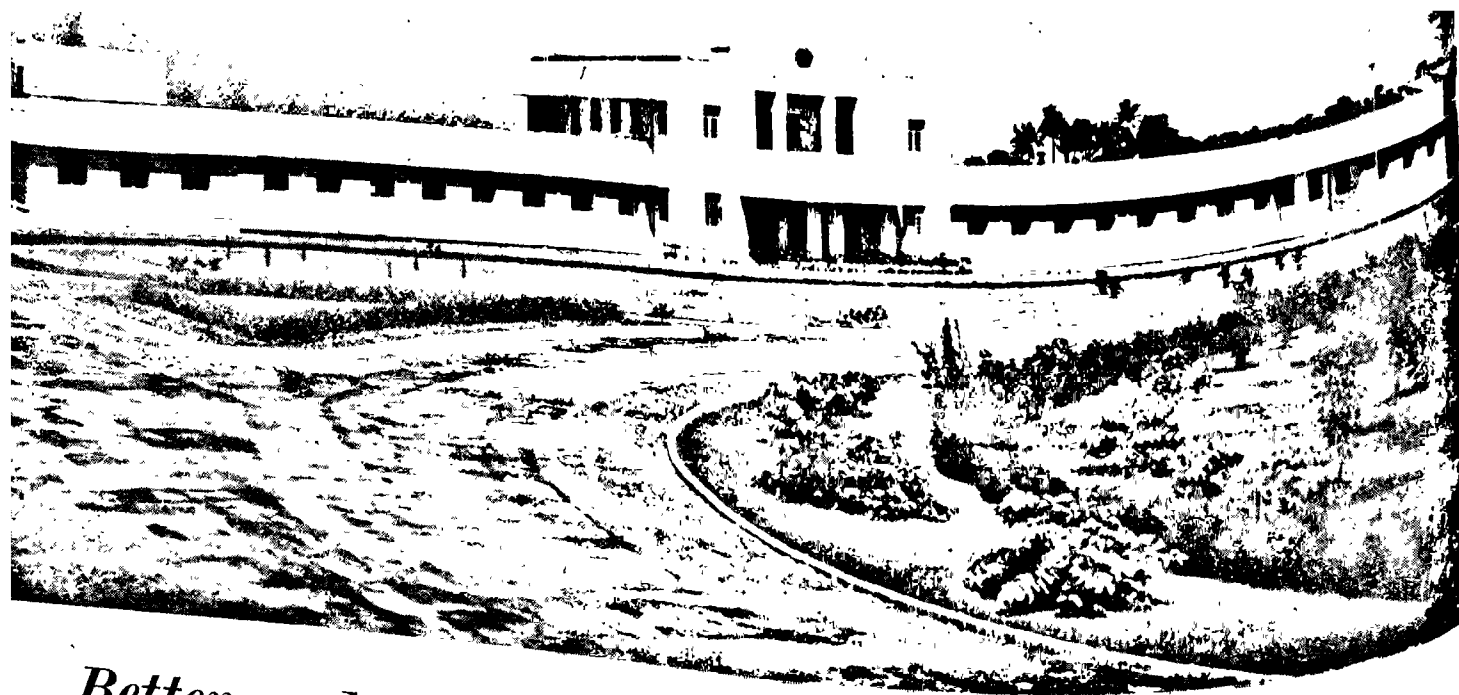
The Government have opened the Amaravathi Main canal, for the first time from 15th November 1957. The canal will remain open till about 28th February 1958. The 39-mile stretch of the canal will irrigate 6,318 acres in Udumalpet taluk and 5,504 acres in Dharapuram taluk. Only irrigated dry crops are to be grown in the area.

Lay-out of the beautiful garden near Sathanur Dam, which may in the course of time



prove an ideal spot for holiday makers.





Better and Cheaper Roads Aim of Highways Research Station

By SRI K. K. NAMBIAR, Chief Engineer (Highways).

We live in a period of wonderful inventions. Far more things have been invented in our age than in the past two thousand years. What were mere wishful-dreams of the past, have actually materialised in our time. We cross our continent in the light of one day. Supersonic speeds have already become common. Man has probed into the mysteries of atom, which unfolds an almost unlimited source of energy for his requirements. It is really astounding to think of the achievements in the field of science. The promise of tomorrow is even greater. The first man made Satellite to encircle the world was launched only on 4th October. Now in quick succession, a second Satellite of much greater weight has already been launched on 3rd November and is now encircling the world at a much higher attitude, that too with a living creature on board with good chances of its being recovered alive. With such space travels already accomplished a journey to the moon appears a practical proposition in not too far distant future. All these achievements go to prove the fact that the intelligence of man is superior to the forces of nature and that he can overcome and control

them to serve his own purpose. But such achievements would not have been possible but for systematic scientific research, carried out through years.

Research is all the more necessary in this era of ours when things are changing fast. No one would deny that in times of change those fare best, who are prepared. Most fortunate are those who can, with their foresight, judgment and skill anticipate the directions of change. These attributes depend on superiority of knowledge which is just what is to be gained by research. Research is not merely a static collection of facts and principles but a developing adventure of thought. It is truly stated that one test in a research laboratory is better than thousand expert opinions.

A research worker like all men who pursue an ideal, will need moral qualities even more than imagination, intelligence or knowledge: probity, sincerity towards himself and others, tenacity, courage, faith in himself and in his work, passion for and pride in his task. In the words of Francis Bacon, a research worker should have

"The desire to seek,
The patience to doubt,
Fondness to meditate,
Slowness to assert,
Readiness to reconsider,
Carefulness to dispose and set in order
And hating every kind of imposture."

In short, a research worker should "apply himself to his work with a pure heart and all the forces of his soul."

Status of research worker

There is a general shortage of efficient research workers. Though the engineering colleges and allied institutions in our country are turning out annually a large number of engineers, only a few of them make research as their career. It is also unfortunate that most of the brilliant students prefer to go to other vocations rather than to research. More alluring prospects are offered to young men in other walks of life than in research, though the latter involves a more diverse and comprehensive education. Therefore it is time that necessary steps are taken

to make the conditions and prospects of research workers as attractive as possible, so that brilliant young men will devote themselves to research work.

Road research

The origin of roads dates back to prehistoric times. The roads that we have inherited and are now in our possession, are the result of the patient work done by Highway Engineers for the past 2,000 years. Progressive improvements have been made from time to time to the type and design of the road. Yet the rate of improvements to the roads can hardly keep up with the rapid strides with which the modern motor transport is growing in this country. It is often found that our road system constructed and maintained on traditional methods is inadequate for the demands of modern vehicles with their ever increasing speeds and weights, with the result that these vehicles are not used to the full advantage. These conditions must be changed by evolving new ideas and new technique in road construction so that a time will come when, instead of designing the vehicles to suit the roads, the roads can be designed to suit the most advanced type of vehicles. This can be accomplished only by sustained research in laboratories and test tracks.

Categories of research

There are various categories of research conducted in the field of science (i) *fundamental research* which aims at acquiring an understanding of the inner nature of physical phenomena without reference to any practical problem; (ii) *basic research* aiming at a study of physical phenomena to such a degree that the circumstances in which they will occur and their nature and effects can be predicted, desirably in quantitative terms and finally (iii) *applied research* aiming for the solution of a particular problem of practical importance. It is the last kind of research, i.e., applied research, that is proposed to be conducted here for solving the problems of practical importance connected with Highway Engineering.

The primary function of the Research Station will be to cheapen the cost of construction and maintenance of roads and bridges.

The work of the Research Station is divided into roughly four sections (1) Physical Division which will deal with the physical properties of road materials, surface characteristics and safety problems of roads and tests thereon; (2) Concrete Division which will deal with all problems of concrete road construction; (3) Bituminous Division which will deal with research on Bituminous products used for road construction and other problems connected with bituminous road construction; (4) Soils Division which will deal with the mechanical and physical properties of soils and other problems connected with foundations of roads and bridges.

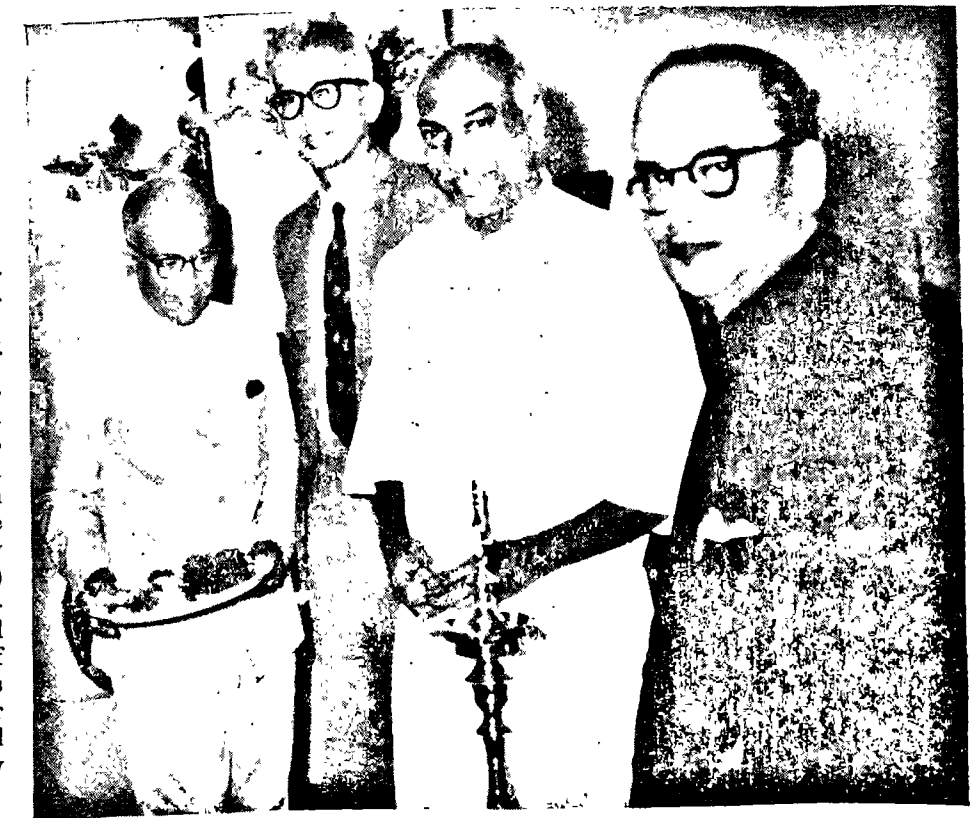
In addition to the vast amount of routine testing conducted, the department will have always in progress several special investigations or research problems in the effort to improve methods of testing, to determine the suitability of proposed revisions of existing specifications, and to arrive at satisfactory specifications, for new materials.

Much of this work will be conducted in co-operation with other highway

laboratories, the Central Road Research Institute and the Indian Roads Congress. The Research Station will also maintain a library and publication section with a necessary indexing service to collect and disseminate technical data concerning roads. It will also arrange for refresher courses and impart advanced training to the departmental officers and men.

Highways Research Station

The basic problems are essentially the same in all countries, although differences in climatic conditions may well throw the emphasis in different directions in different areas. For example the foundation problems in the Gangetic plains of U.P. and Bengal, deficient in road stones, and in Assam subject to heaviest rains are very different from those of Madhya Bharath with black cotton soils; areas with heavy rain-falls will have skidding problems that hardly occur in areas of no or little rain-fall; areas deficient in good road stone will have special surfacing problems that may not arise in areas with good road stones as in



Sri K. Kamraj, Chief Minister, declared open the Highways Research Station on November 14, 1957. Sri S. K. Chatur, Secretary, Public Works Department, Sri K. K. Nambiar, Chief Engineer (Highways) and Sri Ramaswami Reddiar (extreme left), Director of the Research Station are also seen in the picture.



A conphalt road for high speed and heavy traffic.

our State. Naturally with such varying conditions, of climate, terrain and traffic obtaining in this sub-continent of India several Road Research Stations have to be started to serve various zones, charged with the task of investigating problems peculiar to the respective areas. This Research Station will serve such a purpose in the South. Proposals for establishment of this Research Station was put before the Government of Madras on 11th June 1951, and the Government of India agreed on 8th June 1952 that the entire expenditure for building and equipping the Research Station, then roughly estimated to cost Rs. 10 lakhs being charged from the Central Road Fund allocations to Madras and also agreed for giving a recurring grant of not exceeding Rs. 15,000 every year from the Central Road Fund Reserve to cover the works expenditure for this Research Station in the matter of experimentation and testing.

The foundation stone of this building was laid by Sri Shri Prakasa, the then Governor of Madras, on 3rd February 1956, and the work was commenced immediately after the sanction was communicated in April 1956. The work has been successfully completed in quick time, despite adverse conditions of foundation soil.

The building which houses different sections of the Research Station consists of nine blocks, four main testing laboratories being set up in the spacious halls 110 feet x 30 feet in the rear. The front section contains the Library, Indexing Room, Auditorium, Administrative Offices and Model Room. One of the Laboratory halls is provided

with a basement section to store all the specimens and other samples.

Details on cost of Highways Research Station Scheme is furnished below:—

	RS.
(1) Land : 23.53 acres ..	2,35,000
(2) Highways Research Station Building.	9,18,000
(3) Electrification, water-supply and sanitation.	1,18,500
(4) Initial equipment, equipments for the photographic and duplication section, books for the Library and furniture for office and Laboratories.	3,20,500

(5) Miscellaneous expenditure like purchase of Pickup van, tell-tale clocks, internal telephone system, road work, gardening and nursery, etc.

(6) Barbed wire fencing.

Total ..

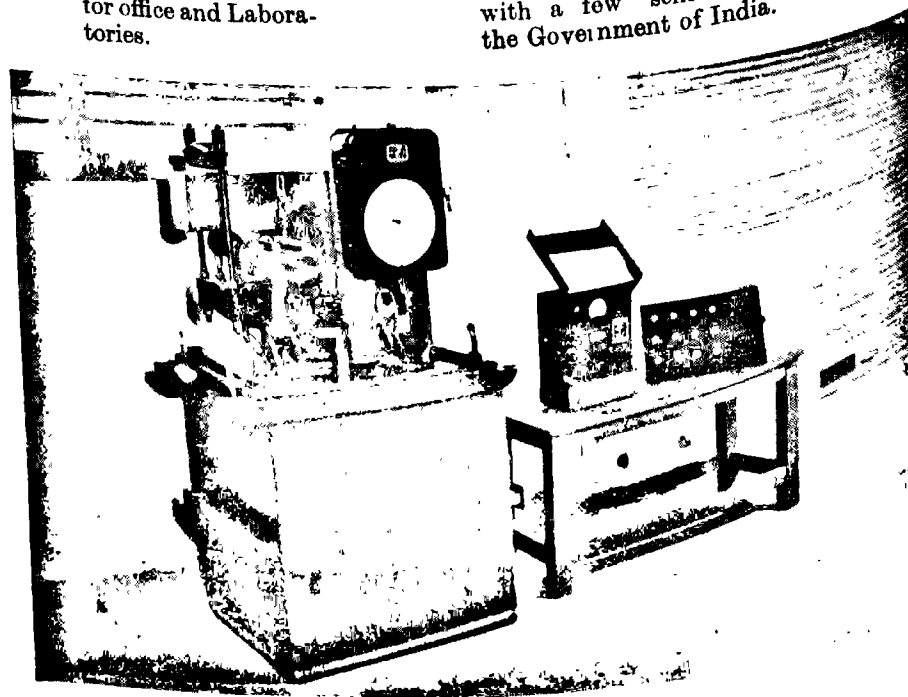
RS.
98,000

10,000

17,00,000

Though the building work has been completed, we are very much handicapped for equipping the different laboratories as most of the equipments have to be imported from abroad due to international situations like the Suez Crisis combined with the import restrictions of the Government of India, the firms could not keep up the time schedule to supply the equipments. In spite of all these difficulties, some essential equipments have already been secured.

Due to the import policy of the Government of India, most of the equipments expected long ago have not yet been received; since the progress and success of our National Plan depend mostly on the progress of scientific research, arrangements should be made to give top priority for the import of scientific equipments for the research laboratories. It may be stated that a beginning has already been made in the Research Station with a few schemes sanctioned by the Government of India.



Sarma Nagar at Erukancheri Second State Sponsored Labour Housing Colony

One more Industrial Labour Housing Colony built under the auspices of the State Government at Erukancheri and named after the renowned labour leader the late Sri P. R. K. Sarma, was declared open for occupation in the second week of this month. The housing colony which has 450 houses was built along with Thiru Vi. Ka. Nagar at a cost of Rs. 12.46 lakhs. Sri K. Kamaraj, Chief Minister, declared open the colony during the second week of November and Sri R. Venkataraman, Minister for Industries and Labour presided over the function.

As is well known, the late Sri P. R. K. Sarma was one of the pioneers of the trade union movement in this State. He was connected with a large number of trade unions such as the Western India Match Company Labour Union, the P.W.D. Workers' Union, the I.L.T.D. Staff Union, etc. In 1937 he was elected to the Madras Legislative Assembly in one of the six seats reserved for labour. In 1945 he represented Indian Labour in the International Labour Conference held in Paris. In 1946 he was nominated to the Madras Legislative Council. He had done a great deal to safeguard the interests and welfare of workers in Madras.

The provision of housing facilities is one of the very important welfare measures for industrial workers in which the State and Central Governments have been taking special interest since the advent of independence. Healthy housing conditions have far-reaching effects on community life, on levels of productivity, and on the welfare of the general public. The housing problem has assumed tremendous importance in recent years. The increase of urban population has accentuated the gravity and vastness of the problem. Consequently, it became necessary for the Government to prepare suitable scheme for the provision of houses for the benefit of industrial labour. As the resources of the State Governments were not sufficient to shoulder this responsibility exclusively by themselves, necessary financial assistance was offered to them by the Government of India as early as 1949 in the shape of loans and subsidies. This financial assistance was also offered to the Housing Boards, Co-operative Societies and private employers so as to encourage them to undertake construction of houses for the benefit of their workers. Under the Subsidised Industrial Housing Scheme sponsored by the Government of India which is now in force, the State Governments and Statutory Housing Boards are granted

50 per cent of the approved ceiling cost of the land and building as loan and the remaining 50 per cent as subsidy. Private employers are granted 37½ per cent as loan and 25 per cent as subsidy and Co-operative Societies are granted 50 per cent of the cost as loan and 25 per cent as subsidy.

A number of private employers have so far taken advantage of the Scheme. The Government of India have made a provision of Rs. 55.10 lakhs for schemes for the construction of houses for private industrial workers during the period of the Second Five-Year Plan. The State Government have decided to utilise this provision for housing schemes to be undertaken departmentally on lands obtained from the employers free of cost. There has been a good response from the employers in the matter of donation of lands.

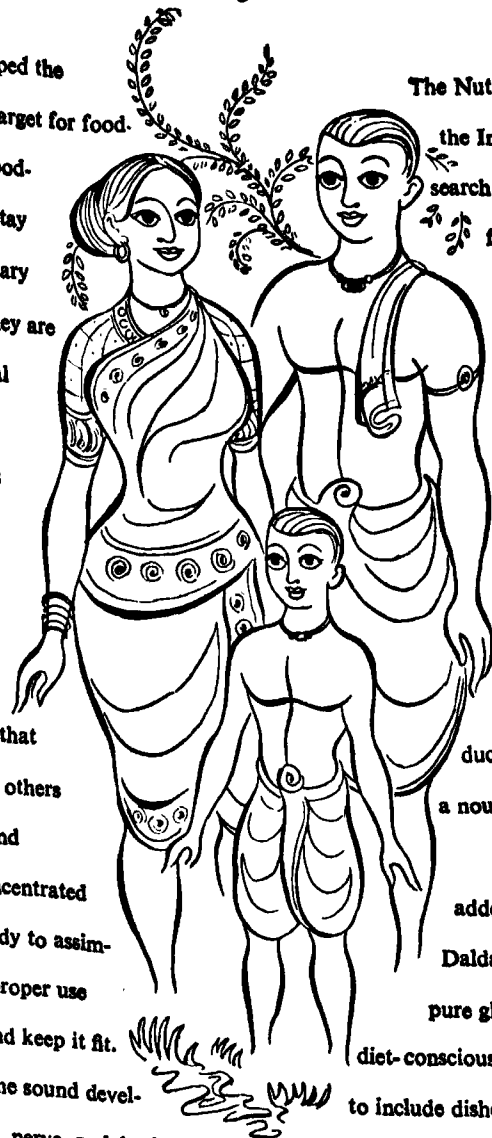
The Thiru Vi. Ka. Nagar Colony and this colony have been constructed by the Government with the financial assistance of the Government of India under the Scheme. There are 936 houses in both these colonies which have been put up on the lands purchased from the Management of the Buckingham and Carnatic Mills. The Government of India agreed to sanction a

Continued on page 25

A plan for your health

The first Five Year Plan helped the farmers of India to exceed the target for food-grains by three million tons. Food-grains are, of course, the mainstay of our diet; but health and dietary experts point out that unless they are supplemented by other essential nutrients, our diet lacks the proper nourishment to keep us healthy. A *balanced diet* is a necessary part of any plan for the health of the nation. Fats and vitamins are two of the five essential food factors that make up a balanced diet. The others are proteins, carbohydrates and minerals. Besides being a concentrated energy food, fats help the body to assimilate other foods and make proper use of them to build the body and keep it fit.

Vitamins are necessary for the sound development of bones, muscles, nerve and brain tissue. Each vitamin imparts its special benefit—Vitamin A prevents night blindness, resists colds, keeps the eyes and skin healthy; Vitamin D (the 'Sunshine' vitamin) prevents rickets and softening of the bones.



The Nutrition Advisory Committee of the Indian Council of Medical Research recommends at least 2 oz. of fat per day for adults, whereas the average consumption of fat per adult per day is only about $\frac{1}{2}$ oz. in this country. It is therefore heartening to note that Vanaspati manufacture has increased by about 1 lakh tons between 1950 and 1955—thus making a valuable contribution to the total production of fats. Dalda Vanaspati is a nourishing fat made from vegetable oils and has Vitamins A and D added to it; in fact, every ounce of Dalda is as rich in Vitamin A as pure ghee. That is why more and more diet-conscious people are planning their meals to include dishes cooked with Dalda Vanaspati,

because they know that it adds to the food value of every dish. Untouched by hand during manufacture, Dalda comes to you fresh in sealed tins—with the familiar palm tree emblem which is your guarantee of a nourishing fat.



HVM. 301A-X52



SILVER JUBILEE OF RANIPET VETERINARY INSTITUTE

By SRI S. VANCHESWARA IYER, Superintendent Institute of Veterinary Preventive Medicine.

Early History.—The prosperity of an Agricultural Nation like India depends primarily on its good and healthy livestock and it is one of the important duties of the Animal Husbandry Departments in the States to protect and preserve them from the ravages of various contagious and infectious diseases. Prior to 1932, the biological products necessary for this purpose in the Madras State were being obtained from the Indian Veterinary Research Institute, Mukteswar, situated about 1,500 miles away from Madras. About this period, Rinderpest, the most serious of all cattle diseases, was raging in a severe form in many parts of the State taking a heavy toll of livestock and causing great economic distress to the ryots. It was found extremely difficult to get sufficient stock

of Anti-Rinderpest Serum in time from the Indian Veterinary Research Institute to control these outbreaks promptly and hence the Government of Madras, considering the seriousness of the situation, decided to have the necessary serum manufactured at Madras itself. For this purpose, experimental studies were commenced at the Madras Veterinary College and finding that potent Anti-Rinderpest Serum could be prepared here successfully, Government sanctioned in 1932 the establishment of a "Serum Institute" at Madras, as a temporary measure for a period of 3 years. A portion of the lands and buildings originally known as "Slater Hostel" in Perambur Barracks opposite to the Carnatic Mills was made available for the purpose. After carrying out some additions and

alterations to make the buildings suitable for a Laboratory and providing necessary accommodation for housing livestock, etc., the Serum Institute was established in these buildings in July 1932, and Sri K. Kylasam Iyer, a Senior Officer of the Department was appointed as the first Superintendent. A staff of 7 Veterinary Assistant Surgeons, 9 attenders, 4 clerks, a carpenter and a number of peons and mazdoors were also sanctioned.

With the establishment of the Institute at Madras, it was found possible to manufacture and supply sufficient quantities of Anti-Rinderpest Serum and Rinderpest Virus in time and at a cheap cost to control effectively the outbreaks of Rinderpest in the different parts of the State.



Freeze Drying Machine used for the preservation of sensitive biological materials.

At this time, studies were also initiated at the Institute to passage the bovine strain of Rinderpest Virus serially into local goats with a view to attenuate it and free the Rinderpest Virus from secondary protozoon parasites. A considerable degree of success was achieved in this attempt.

Encouraged by the results obtained, the Government sanctioned in 1935 the continuance of the Institute for a further period of two years up to 31st March 1937 and also sanctioned the manufacture of the Anti-Hæmorrhagic Septicaemia Serum and Hæmorrhagic Septicaemia Vaccine at this Institute for the control of Hæmorrhagic Septicaemia among cattle and buffaloes in the State. Two more Veterinary Assistant Surgeons with necessary staff were posted for this purpose.

In order to arrive at a correct idea of the advantage to Government by maintaining this Institute, Government ordered in 1935 that pro forma cost and commercial accounts should be maintained at the Institute and the manufacturing cost of each product worked out.

The Anti-H. S. Serum and H. S. Vaccine manufactured at the Institute

were also found to be quite potent and efficient and their manufacturing cost was found to be much lower than the prices prevailing at the Indian Veterinary Research Institute, Mukteswar, and other places.

Encouraged by the results obtained and convinced of the economy and usefulness of maintaining this Institution, Government in 1937 extended its continuation for a further period of two years.

The manufacture of Anti-Rinderpest Serum, Rinderpest Bull Virus, Rinderpest Goat Virus, Anti-Hæmorrhagic Septicaemia Serum and Hæmorrhagic Septicaemia Vaccine was continued. To cope up with the increasing activities of the Institute and to provide additional accommodation for the laboratory and animals, the adjoining lands and buildings on the Cooks Road, belonging to the Labour Department were transferred to this Institute. The buildings were remodelled and equipped with necessary apparatus and furniture. Additional cold storage facilities were provided and more sheds were constructed to accommodate the large number of animals.

Government, convinced of the good and useful work carried out at the

Institute and the economic benefits derived from it both by themselves and the livestock owners in the State, ordered its permanent retention in 1939.

In addition, Government sanctioned the manufacture of some more biological products like Anti-Black-Quarter Serum, Black-Quarter vaccine, Bovine Lymphangitis Vaccine, Fowl Pox Vaccine, Fowl Cholera Vaccine and Fowl Cholera Serum. The manufacture of these products was taken up early in 1940 and the appointment of two more Veterinary Assistant Surgeons was sanctioned to cope up with this increased work.

Shifting to Coimbatore.

In the early part of 1942, when the Institute was steadily expanding its activities and becoming more and more useful to the livestock owners of the State, it had to be shifted to Coimbatore as an emergency measure due to war. At Coimbatore, the Institute was located in a portion of the Agricultural College estate, where it functioned for a period of nearly 6 years continuing its activities on a restricted scale due to limited accommodation and inadequate facilities. Repeated efforts made in this period to return to the original buildings at Madras or to have new buildings constructed in or around the City of Madras to house the Institute proved futile. The original buildings at Madras were sold to the Buckingham and Carnatic Mills by the Government of Madras. Coimbatore, being located in one end of the State, some difficulties were experienced by the staff working in the northern parts of the State in getting timely supplies of Anti-Rinderpest Serum and Virus to control outbreaks of Rinderpest promptly. To overcome this difficulty a sub-station for the manufacture of Anti-Rinderpest Serum and Rinderpest Goat Virus was established at the Madras Veterinary College in 1944. This sub-station manufactured and supplied Anti-Rinderpest Serum and Rinderpest Goat Virus to the areas now transferred to the Andhra State.

New Premises.

The question of providing permanent accommodation for the Institute was engaging the serious attention of the authorities for a considerable time and when the present buildings at Ranipet originally constructed for a Meat

Dehydration Factory by the Government of India became available, the State Government were pleased to acquire the same under the Post-War Reconstruction Scheme and the Institute was shifted to these buildings during March 1948. The present premises has an area of about 100 acres of land with residential accommodation for the majority of the staff working in this Institute. The water-supply to the premises is made by Messrs. Parry & Co., Ranipet. The Institute is situated in the place known as Karai Maidan on the outskirts of Ranipet Town and is about 71 miles away from Madras. Since moving into the present premises, some additions and alterations were made to the main buildings to make it suitable for accommodating the different sections of the Institute. The land round about has been levelled and provided with a fencing and a number of trees have also been planted. Some additional furniture, equipments, cold storage facilities and a well equipped library with a number of periodicals and latest reference books have also been provided.

The Veterinary Disease Investigation Section consisting of three Gazetted Officers and their staff which was functioning at the Madras Veterinary College was transferred to Ranipet in the year 1948 and they were provided with necessary accommodation and facilities in the Institute buildings.

The sub-station at Madras was also closed and brought to Ranipet during the year.

After occupying the present buildings at Ranipet, in addition to manufacturing and supplying the different biological products in sufficient quantities, research studies were commenced to produce suitable vaccines for the control of Sheep Pox and Enterotoxæmia in sheep which were causing heavy economic loss to the people in the State.

Consistent with the nature of work carried on at the Institute, the name of the Institute was changed in 1950 from "Serum Institute" to "Veterinary Biological and Research Institute" Ranipet.

To cope up with the increased work due to the expanded activities of the Institute, a post of Research Officer was created in the year 1951, to assist the Superintendent in the administration, manufacture of biological products and cognate research activities.

With the appointment of the Research Officer, work on the research side was intensified and studies commenced on (1) the experimental manufacture of Anti-Anthrax Serum and Anthrax Spore Vaccine for the control of Anthrax among livestock, (2) preparation of Brucella Abortus Vaccine and antigens for the diagnosis and control of Brucellosis among cattle and (3) the manufacture of chick embryo adopted for the control of Fowl Pox among poultry. Considerable success was achieved in these items of work and the laboratory and field trials with the products evolved, proved highly satisfactory.

Research Activities.

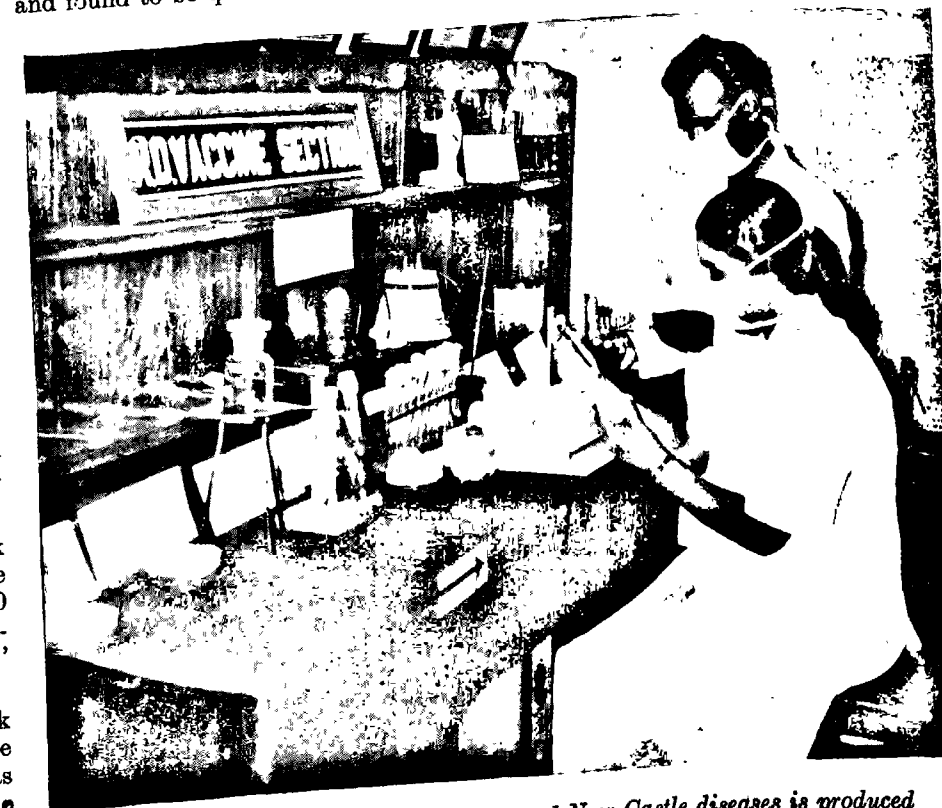
Simultaneously, experiments were started to adopt the local strain of Rinderpest Bovine Virus to rabbits, to produce a mild, cheap and efficient vaccine for the control of Rinderpest in the State. Great success was achieved in this work and it has been possible to evolve a new strain of Lapinised Rinderpest Vaccine at the Institute. This vaccine has been tested on local breeds of cattle and buffaloes and found to be quite safe and potent.

The product has to be tested on foreign breeds of cattle and animals highly susceptible to Rinderpest.

As a result of further research studies carried out, improved and potent vaccines have been produced for the control of Hæmorrhagic Septicaemia and Black-Quarter, by the addition of adjuvants like alum, liquid paraffin, mineral oil, lanolin, etc., to the routine broth bacterins. The H.S. alum precipitated and oil adjuvant vaccines have been tested extensively both in the laboratory and in the field with encouraging results. These new adjuvant vaccines confer a much better and lasting immunity than the broth vaccines in use hitherto. The alum added Black-Quarter Vaccine is also found to have high immunising qualities as compared to the routine vaccine in use. A vaccine for the control of Johne's disease in cattle has been prepared at the Institute and is under experimental study.

F.A.O. Assistance.

During 1952, the Food and Agriculture Organization of the United Nations provided this Institute with the services of an expert, Mr. G. G. Alton, for manufacturing Rinderpest



Vaccine which will counter Ranikhet and New Castle diseases is produced in the Institute. Eggs are inoculated for the production of the vaccine.

and other Virus Vaccines in a freeze dried form and to train the staff of this Institute on the modern methods of vaccine manufacture. They in addition supplied this Institute with a freeze drying machine and other equipments costing about Rs. 30,000 necessary for the freeze drying of vaccines and for carrying out research. With the help of this expert and the equipments supplied, the manufacture of the different virus vaccines for Rinderpest, Ranikhet Disease, Fowl Pox and Sheep Pox in freeze dried form using modern methods and technique was commenced at this Institute and these vaccines are now supplied to the field staff in the freeze dried form only. The production of these vaccines in this form has resulted in considerable economy as their bulk is much reduced, making it easy for storage and transport and in addition, has also improved its keeping qualities, as it could be stored in a deep freeze cabinet at -20°C without loss of viability for a period of over two years. The F.A.O. expert worked in the Institute for a period of 15 months and trained the members of the staff in the handling of the freeze-drying equipments and manufacture of vaccines using modern methods and technique.



Serum to control Haemorrhagic Septicaemia a highly infectious and fatal disease is produced in Ranipet Institute, for the last twenty years.

After the termination of the expert's assignment, a post of Special Officer for the manufacture of Rinderpest and other Virus Vaccines in the freeze dried form was created in 1954.

During this year the name of the Institute was again changed from "Veterinary Biological and Research Institute" to "Institute of Veterinary Preventive Medicine, Ranipet."

In February 1954, the Ranikhet Disease Vaccine Section which was functioning at the Madras Veterinary College was transferred to the Institute with the staff, equipments and a poultry unit and subsequent to this, the Ranikhet Disease Vaccine is being manufactured and supplied to the staff in the freeze dried form in the place of the liquid vaccine supplied hitherto from the College.

To facilitate further research work and to accommodate the animals under different experiments and tests, a few more equipments, a dozen isolation sheds and an animal house for breeding and rearing small experimental animals like rabbits, mice, guinea pigs, etc., were added on. The room where freeze drying work is carried out was air-conditioned to improve the efficiency

of the machines and the products manufactured. The construction of an incubator room has been sanctioned by the Government and the work is expected to be taken up shortly. Quite recently, the facilities at the Institute have been improved by the addition of a steam generator (boiler) and a horizontal steam sterilizer. The Institute is now fairly well equipped for manufacturing almost all the biological products necessary for controlling the various epidemics of livestock in the State and also for undertaking research in this direction.

Besides meeting the demand of the staff of the Animal Husbandry Department in Madras and Andhra States, the biological products manufactured at this Institute have also been supplied to other States in the Union like Bombay, Uttar Pradesh, Madhya Pradesh, Mysore, Kerala and Pondicherry and other places like Ceylon.

The biological products prepared at this Institute are supplied to the staff of the Animal Husbandry Department in Andhra State on a no-profit-no-loss basis as per Section 60 of the Andhra Partition Act from the date of partition on 1st October 1953.

During the disastrous cyclone of 1955, which hit the four districts of Tanjore, Tiruchirappalli, Madurai and Ramana-thapuram, the Institute manufactured and supplied large quantities of Haemorrhagic Septicaemia and Black-Quarter Vaccines to protect the cattle of these districts from Haemorrhagic Septicaemia and Black-Quarter and saved them from these diseases.

I.C.A.R. Schemes.

The following three research schemes partly financed by the Indian Council of Agricultural Research are in progress at the Institute:—

(1) Scheme for the improvement of Haemorrhagic Septicaemia Vaccine and the manufacture of a combined vaccine for Haemorrhagic Septicaemia and Black-Quarter.

(2) Scheme for the improvement in the technique and methods used for the manufacture of Virus Vaccine.

(3) Scheme for the survey and control of Brucellosis in Madras State.

During the first Five-Year Plan period, the Institute manufactured and supplied freeze dried Rinderpest Vaccine for use in the area covered by the Pilot Project and it is one of the

centres for the manufacture and supply of freeze dried Rinderpest Goat Tissue Vaccine for use under the National Plan or Rinderpest eradication in the country.

For convenience of working, the Institute has a member of sections, each section preparing biological products for the respective diseases and undertaking research on the manufacture of improved and new products.

Achievements.

From a modest beginning in 1932, commencing with the manufacture of Anti-Rinderpest Serum and Rinderpest Virus, this Institute has gradually developed and expanded its activities in the course of the last 25 years and is now fairly well equipped with the necessary buildings, apparatus, equipment, facilities and staff to undertake research work on the different animal diseases and the manufacture of suitable biological products on modern lines for their prompt and effective control.

The control of the major contagious and infectious diseases of livestock is no more a great problem in the State as this Institute is now manufacturing necessary biological products for the purpose and by the timely use of these products in endemic areas, the valuable livestock can be saved from the ravages of these diseases and the livestock owners saved from the economic loss.

Madras State has been free from Rinderpest for the last four or five years and this is not a little due to the prompt and timely supply of necessary biological products from this Institute.

It has been the constant endeavour of the Institute to strive for the manufacture of quality biologicals to protect and preserve the livestock of the State from the ravages of the different contagious and infectious diseases.

Financially, the establishment of this Institute has proved to be a very sound one, as almost all the products required for use in this State are now manufactured economically and that a much cheaper cost than the rates prevailing in similar institutions in the country.

The cost of manufacture of each product is worked out annually on a pro forma commercial basis and the financial savings to Government worked

out each year by the Accountant-General, Madras. It will be seen from the statement attached that considerable savings have resulted to Government from this Institute and the Institute has been run on the most economic lines.

Due to the ready availability of necessary biological products at the Institute, it has been possible for the Animal Husbandry Department of the State to effectively control the various contagious and infectious diseases of livestock promptly and to forge ahead with ambitious plans for the development of livestock in the State in the Second Five-Year Plan period.

Sale of Khadi

Total sale of Khadi by Khadi Department during the month of October amounted to Rs. 7,46,798. Khadi sold through departmental depots amounted to Rs. 1,01,171.

The rest was sold through Intensive Khadi Centres. Total production of Khadi during the month is 216,377 yards worth of Rs. 4,04,610 and Silk production of 1,120 yards worth Rs. 12,382.

Vidur Project Sanctioned

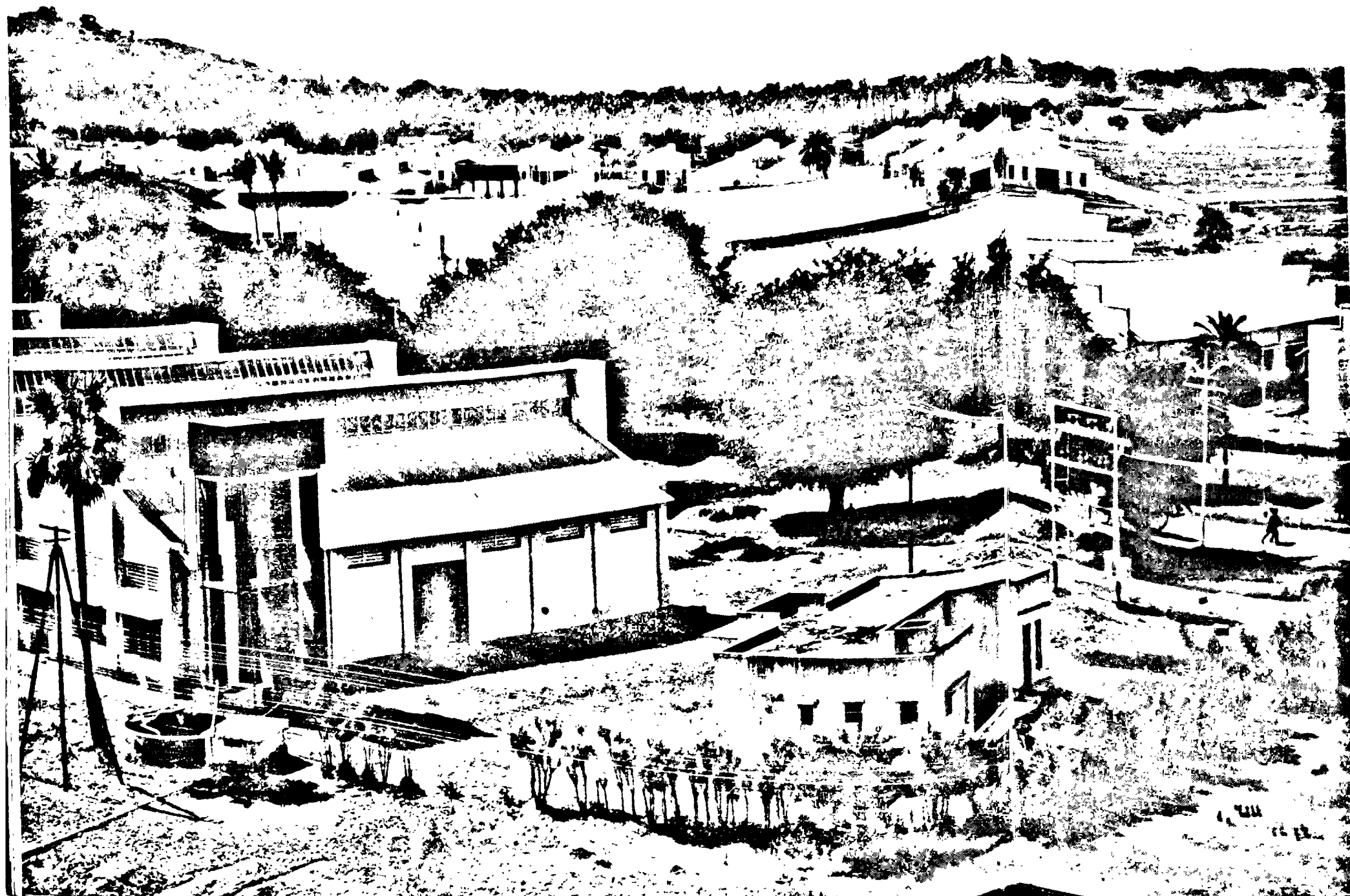
The Vidur Reservoir Project costing Rs. 55.16 lakhs has been sanctioned for immediate execution. The scheme comprises a reservoir of 550 million c.ft. capacity across the Varahanadhi river about half a mile below the confluence of the Thondiar river with it and a 11-mile canal from the left flank end of the dam. The total cost of the Scheme including indirect charges is Rs. 61.37 lakhs. The cost of the project will be apportioned between the States of Madras and Pondicherry in the proportion of 11 : 5 (i.e., Pondicherry bearing 5/16ths of total cost).



Sri Vancheswara Iyer, Superintendent of the Institute, explaining to the Chief Minister and Home Minister, some of the methods adopted in producing the serum for prevention of cattle disease.

Guindy Industrial Estate—Achievement of the year

A bird's eye view of the Guindy Industrial Estate. In the foreground is seen the new buildings of the Central Polytechnic Workshop.



Many Factories Move in

Guindy today is far different from what it was barely ten months ago. The name Guindy was for long associated only with Race Course and the residence of the titular Head of the State. But now it bids fair to become the focal point of a variety of new industries—mostly under small private entrepreneurs—in a sort of a centrifugal pattern. Within comparatively a very short period more than fifty factory buildings with all amenities for the starting of small-scale industries have sprung up in this area. The State Industries Department has done a splendid job in completing so many factory buildings in so short a period working round the clock. While all the other States except Delhi are still planning their factories, here at Guindy the Industrial Estate is an accomplished fact. About three-fourth of the Rupees seventy lakh, ninety unit Guindy Industrial Estate is completed and many factories including departmental units have moved in. The rest of the construction work is expected to be over by March next year.

Central Polytechnic and the Chemical Testing and Analytical Laboratory under Industries Department are also proposed to be shifted to this place.

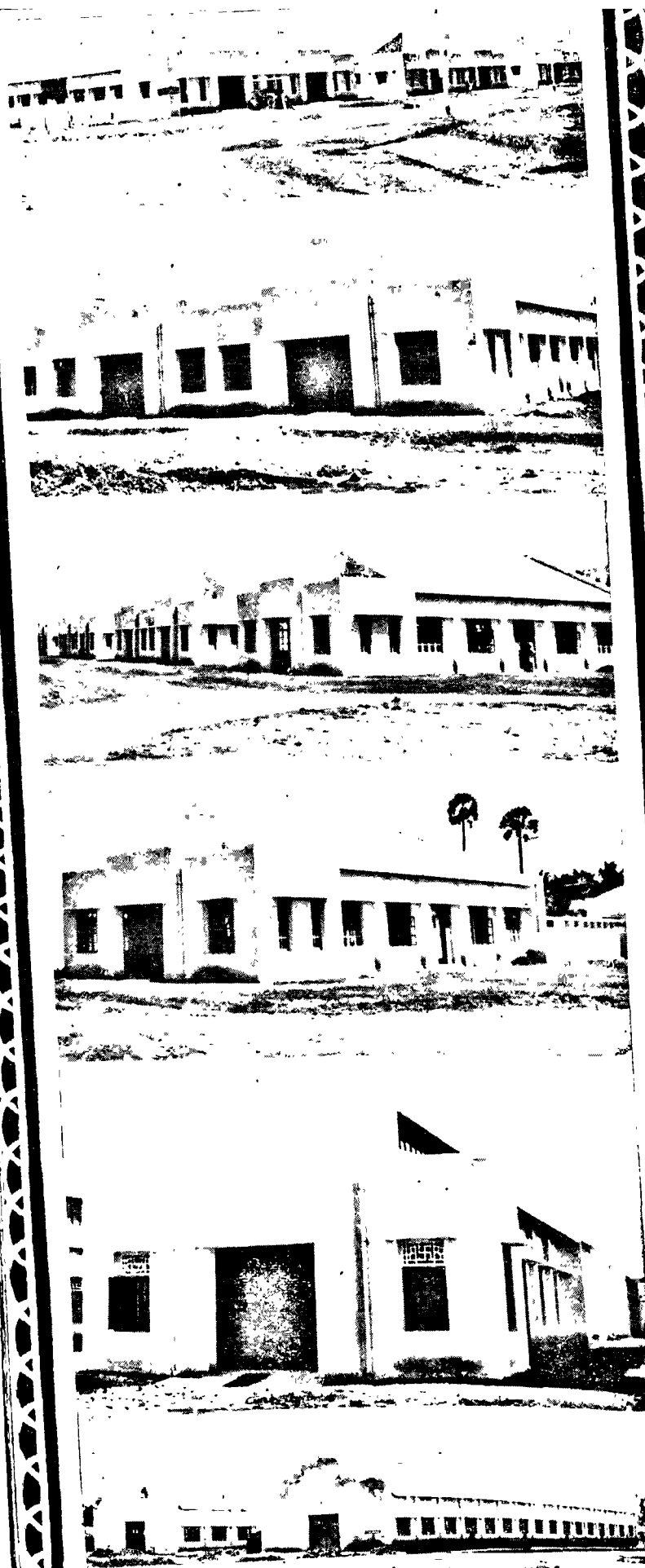
Industrial Estates are developed and planned sites with built factory spaces of different sizes available for rent or otherwise to small-scale industries providing for them facilities like supply of electricity, gas, compressed air, steam, water, drainage, etc.

While industrialization would become a marked feature of the second Five-Year Plan, the effect of such industrialization occurring in an indiscriminate way should be avoided from a town and country-planning point of view. There already exist in this State several protective and restrictive principles, legislative and otherwise, to guide and regulate the location of industries. While these restrictions have been imposed, there has been a significant lack of development and of facilities in the industrial areas set up. For this reason, special attention will require to be paid to give fillip to expansion, on a large scale of various kinds of small-scale industries by providing organized facilities.

From a small-scale industrialist's point of view, the chief obstacles in setting up small industries are the scarcity of capital and the long delays and troubles involved in having to approach different authorities for obtaining the necessary facilities such as water-supply, electricity, etc. In the first instance, the purchase of a site for the factory and also the erection

of a factory building thereon and providing it with all required services and amenities consume a great part of the capital he can muster with the result that he is unable to find adequate working capital. Further, a large number of small scale industries are struggling for survival for the reason that they do not find proper factory accommodation and are invariably located in buildings in congested localities not designed for factory use and not possessing many of the essential facilities required for the industry. Many of these small units cannot afford to have special facilities such as gas, steam, etc., in view of the high cost involved and as the full capacity of the plants installed is not required. If Government provide factory space with all facilities it will go a long way in solving the difficulties of entrepreneurs and industrialist in setting up their industries. For the above reasons it is very essential to set up Industrial Estates in important centres.

Such Industrial Estates were tried in United Kingdom and some other countries run by private companies for profit and by the public sector on a more or less non-profit basis and have been found successful in tackling the problem of slum clearance in big cities, developing industrial suburbs, planning future location of industries, assisting development of diversified small-scale or light industries, etc.



So far no Industrial Estates have actually started functioning in this country. Almost all the States have taken up this scheme and have started acquiring suitable sites, etc., and in some places new factory buildings have already been completed. After sufficient experience has been gained in the working up of a few pilot units to be started during the current year, it is hoped that a large number of estates would be set up in the succeeding years.

Apart from the facilities which will be available in all the estates it is proposed to undertake in the estate at Madras purchase of raw materials in bulk and distribute the same at cost price to the small units to be housed there. All concessions available on account of bulk purchases, will be passed on to the consuming small industries. For the benefit of the small-scale units in the estate, it is also proposed to set up in a plot of 30 acres adjoining the estate, service centres for the manufacture of surgical instruments, scientific glass apparatus, laboratory equipment, sports goods, hand tools and electrical goods. At these servicing centres facilities will be available for testing the products of the concerned industries and for undertaking certain operations requiring costly machinery which the small units cannot afford to purchase. The Chemical Testing and Analytical Laboratory of this department is also proposed to be shifted to this place. If this experiment in Madras proves to be a success, the scheme will be extended to other estates.

After the various units in the estates have started regular production, it is proposed to set up a marketing corporation with chain stores in each estate.

The estates are being set up with borrowed capital bearing $4\frac{1}{2}$ per cent interest. The cost of buildings and the land on which they stand, is a 20-year loan and the rest of the expenditure (i.e.) layout, roads, power, transmission,

From the top. A row of 'A' double Units. A single 'A' double building. A row of 'B' Units. A single 'B' Unit building. The last two pictures show a 'C' Unit and Departmental Units built to house some of the small scale industries run by Industries and Commerce Department.

water-supply, etc., is a 30 year loan. During an initial period of, say about five years, the estate will function on a no-profit basis under Government control and later, if possible handed over to a Corporation consisting of the small-scale units occupying the estate. To start with, the intending users will be given the option to take the land and buildings on the rental-purchase system or on a rental basis or on an outright purchase basis. Those who take the sites on a rental basis will be permitted to change over to the rental-purchase system at any time. An initial payment of 25 per cent of the cost will be made by those who adopt the rental-purchase system. The balance of 75 per cent will be paid in equal instalments spread over a period of 20 years. Outright sales will be subject to condition that the purchasers comply with the rules and regulations of the estate such as starting of only specified industries, etc. For general services rendered in the estate such as provision of roads, supply of electricity, etc., the capital cost will be proportionately recovered from all users. If a particular user wants to construct a building himself, he will be permitted to do so and 75 per cent of the cost will be provided as loan and he will be required to follow the building regulations laid down by the authorities of the industrial estate.

Industrial Estate at Guindy.

In order to promote the development of small-scale industries by providing ready-built factory spaces for the entrepreneurs and industrialists the establishment of Industrial Estates in principal cities and towns was suggested by the Government of India. Based on this suggestion the State Government decided to set up an Industrial Estate at Guindy besides seven more in other places. The total estimated cost of the Industrial Estate at Guindy is Rs. 70.03 lakhs and will be given by the Union Government as loan at $4\frac{1}{2}$ per cent interest repayable in 20 years.

It is programmed to construct 90 factory units in the Industrial Estate at Guindy out of which the construction work relating to 52 units is nearing completion. Tenders have also been called for the construction of the remaining 38 units and it is expected that the construction of the entire 90 units will be completed before 31st March 1958.

The following are the details of factory units provided in the scheme and that are under construction :—

	Number provided.	Number started.
A single	5	12
double	16	1
B single	6	12
double	14	7
C single	7	20
double	42	

Allotment of Factory Buildings.

So far 83 applications have been received for the allotment of factory space. four units have been allotted to the Government of India Footwear Centre. The allotment in respect of 45 factory units has just been finalized and orders will be issued soon. At least 10 to 15 industries will occupy the buildings and start functioning in the Industrial Estate, before the middle of October and many of the rest will be in the process of setting up their factories.

Departmental Units.

For providing servicing facilities to the small industries housed in the Industrial Estate, the following 11 departmental units at a total cost of 87.47 lakhs have been proposed to be set up besides one Saranjan Kariyalaya and Central Ambar Charka Workshop at a cost of 11.02 lakhs. The Saranjan Karyalaya has been completed and has started functioning since the 2nd August 1957. The Ambar Charka Workshop building has been completed.

(1) *Manufacture of Hand Tools.*—A Service Centre for the manufacture of hand tools has been programmed to be set up at a cost of Rs. 10.3 lakhs. One building out of the two is completed. Orders have been placed for machines worth Rs. 6.5 lakhs. Machines amounting to Rs. 1.5 lakhs have been already received and erected. Shipment advice regarding machinery worth Rs. 2 lakhs has been received and the unit will start functioning shortly.

(2) *Sports Goods Unit.*—A Sports Goods Unit set up at a cost of Rs. 1.81 lakhs has started manufacture of goods. The buildings for this unit are completed and the machinery installed.

(3) *Servicing Corporation.*—Cost of the scheme is 4.5 lakhs. This Corporation is intended to supply raw materials, etc., required by the various small units at reasonable rates. This has already been registered as a registered stock-holder and indents have been raised for the initial allotment

of iron, steel and coal. The Deputy Chief Mechanical Engineer, Railways, has also agreed to supply Railway scrap to the small industries through the Servicing Corporation. It will be possible to buy the scrap and demonstrate the working of this unit before the end of this month.

(4) *Surgical instruments.*—Total cost of the scheme is 6.60 lakhs. The building work is completed. Orders have been placed for machinery worth Rs. 3.8 lakhs of which machinery worth Rs. 25,000 have been received. This cannot start functioning.

(5) *Electrical goods.*—Cost of the scheme is 17.7 lakhs. Building work is completed. Machinery to the value of Rs. 4.15 lakhs have been ordered for this unit.

(6) *Laboratory and Scientific equipment.*—Building work is nearing completion and will be completed by the end of September 1957.

Machinery to the value of Rs. 21,000 out of Rs. 1 lakh have been received.

(7) *Technical Information Section.*—Total cost 7.07 lakhs. This will be started in a nucleus scale in one of the buildings completed.

(8) *Pressure die casting plant.*—9.69 lakhs*.

(9) *Model Foundry.*—(5.46 lakhs)*.

(10) *Wood Working Unit.*—(8.32 lakhs including expansion)*.

(11) *Glass Factory.**.

* Building works likely to be started only during the current year.

It will be seen from the above that out of the 11 departmental units proposed to be established in the Industrial Estate, about 5 units will be functioning by the end of this month.

The Government have sanctioned a Rs. 10-lakh scheme for the supply of mid-day meals to primary school children in the State by providing grants to supplement local donations. The scheme has been sanctioned for implementation from 1st November 1957 and will extend to all rural and urban areas in the State except the City of Madras, for the benefit of poor pupils reading in standards I to VIII, provided there is sufficient local support for the scheme, in the form of donations, in cash and kind from the local public, to the extent of at least 6 nP. per meal. The Government grant will be calculated at the rate of the amount by which the actual expenditure exceeds 6 nP. per meal per pupil.

Care of Children

By. DR. S. T. ACHAR.

The 14th of November is dedicated to the children of India and observed throughout the length and breadth of this resurgent country as *Children's Day*. This day is also the birthday of our beloved Prime Minister, Jawaharlal Nehru. His interest in children is spontaneous and he has shown it abundantly in always finding time to spend a few hours in the company of the children of the locality, wherever he goes, in India and abroad. It is fitting that the Indian Council of Child Welfare has chosen this day to celebrate children's day, and as the peak day of the week devoted to children's rallies, baby shows and other activities; the aim is not only to give pleasure to children but also to educate public opinion on the various aspects of child care.

Too often, in our country, and perhaps, elsewhere too, a day devoted to a particular purpose, like Vanamahotsava for instance, is celebrated with enthusiasm; and then the purpose is forgotten till the celebration falls due again, next year. This happens when the purpose is not near to our hearts; this should not happen with the purpose of children's day. The challenge to care for children and produce the best youth possible, pledging our fullest resources, is something that must be



A facsimile of a postal stamp issued by the Union Government in connection with the Children's Day Celebration.

taken up, as a continuous national responsibility; for the old saying is true today too, that "a nation marches on the tender feet of the young".

Health of the children.

Child care is a wide subject; children's health is a most important aspect of it. It is the bare truth that due to various reasons, the standard of health of the majority of children in India is among the lowest in the world today. Not only is the rate of infant and child mortality very high (available figures show that this rate is one of the three or four of the highest in the world); but also the condition of the surviving children is appalling since they are weak in body and mind and exposed to the dangers of preventible diseases, such as T.B., bowel disorders, etc., which are rampant in our country.

A radical change from this deplorable condition is a challenge that has to be met, if our next generation has to stand comparison favourably with the youth of other countries. We have to realise the importance of health and good physique of the children in the march to progress of the nation. All the Western countries, both capitalistic and communist as well as some resurgent countries in the East have forged ahead in this field, the past 50 years. In Great Britain, the United States of America, Sweden, Russia and more recently in Japan and China (to mention only some countries as examples), child care has produced results that are tangible and remarkable. Infectious disease like diarrhoea and tuberculosis, which are accepted here as part of children's existence, have been, in those countries, reduced to a low incidence, and yet, 50 years back, these diseases were nearly as common there, as they are with us now. But the conditions were changed; the use of the knowledge gained from a study of the Science of Nutrition to the proper feeding of infants and children,

and the 'doing away' with bad traditional practices, were combined with increased availability of foodstuffs and priority given to children with regard to milk and protective foods. The results have been that babies are heavier and bonnier than the babies of the previous generation; the school-going child is normally taller and heavier than his counterpart 30 years ago; even the average birth weight of infants has gone up in the past few decades, due to better nutrition of the pregnant mothers. Environment has been so improved that there is less chance of the spread of infectious diseases like bowel diseases, tuberculosis, etc. Preventive inoculations protect the children from infections like diphtheria, whooping cough and tetanus, still not completely eliminated from the community. These higher standards of children's health, standards which have contributed to the happiness of families and the strength of the nation as well, are the results of the application of scientific knowledge to social conditions; and these results have been achieved in a few decades.

No cause for despair.

If in India, we find a different picture, if we find bowel disorders, typhoid and tuberculosis rampant among children and our hospital wards overflowing with cases suffering from these and other preventible diseases like diphtheria and whooping cough, still we need not despair. The situation in America and Europe in the last century was no better, and yet they have been able to eliminate all these by preventive measures. It is within our power to achieve the same results, if we all determine to create for our children, the conditions of optimal growth and freedom from disease.

To many of us the word 'Child care' brings to mind the picture of some one examining sick children or of prescribing medicine suited to the child and the disease. This is however, a very limited idea. For example, we can go on treating tuberculosis in children by even opening special children's T.B. hospitals; or we can have additional big wings in hospitals to receive diphtheria cases; or we can have physio-therapy centres on a large scale to treat disabilities and deformities resulting from infantile paralysis. Treatment for disease is necessary and all-important from the individual point of view, but for the sake of the community at large, it is even more important that the prevention of all these diseases should be

attempted on a mass scale; it can be done. Diarrhoea is rampant in Madras, for instance; it can be prevented by studying the particular germs that are responsible, by detection of those people who harbour and by elimination of flies. Money spent in this direction is well worth while. Similarly one may consider tuberculosis which often takes a severe form in childhood by affecting the brain; (over 200 such children with T.B. brain were admitted in 1955 in the Madras General Hospital alone and the number is increasing from year to year in the contrast to the marked decline in the West). This problem should be tackled not just by increasing the facilities for treatment; but there should be preventive measures to protect the child from acquiring the infection so early. This can be done by ensuring that the child does not live in the same house with some one suffering from T.B. and by immunising the child soon after birth with B.C.G. to protect the child from picking up the infection in the house or from the street at such an early age.

Prevention of diseases.

Again diphtheria and whooping cough are rampant over 300 cases of diphtheria are admitted into the General Hospital, Madras, annually. These can be prevented as in the case of small-pox, by inoculation in infancy.

Leprosy is another slow poison, beginnings of which are found in childhood, contracted by close contact with an adult case in the house; this danger can be prevented by separation of the child from contact with the infectious case.

Evil of Malnutrition.

Besides preventible diseases, malnutrition is another evil our children suffer from. It is a great pity that the majority of our children get hardly any cow's or buffalo's milk, because the quantity produced in the country is not enough. Even the insufficient quantity available is not earmarked for children, as was done in England during the War and post-war years, when the adults, rich or poor, had to put up with black coffee and no milk or milk products. It is heart rending to see effects of milk deprivation, among our children; the child ceases to grow, and looks peevish and big in size due to swelling of the body with water. The child may die of this condition; but there is little cause for rejoicing when

the child survives, enfeebled in body and mind. A visit to the out-patients department of any hospital or to a child welfare centre or slum area is sure to provide a spectacle of an array of such children who are the future citizens of India. Surely something must be done to prevent the continuance of such conditions.

It requires all the resources of the nation to tackle this problem with high priority and for children even in the poorest families to get some of the available cow's or buffalo's milk. Steps to explore the possibility of indigenous

vegetable protein rich foods like bengalgram, etc., and devising of ways and means to distribute these to these children; dissemination of knowledge of correct infant feeding methods under Indian conditions; these are some of the steps that might bring about a change in the situation in our own lifetime. It is gratifying to note that the Indian Council of Medical Research financed by the Government of India is well apprised of the situation and has taken steps under the Second Five-Year Plan to further research and

(Continued on page 25)



People give him all the attention and adoration wherever Nehruji goes, but he is drawn more to the children, the citizens of tomorrow.

The Dreams of the Child are

The Later Realities of Man

By SRI K. CHANDRASEKARAN

Not every one can bring up a child; not every mother that has given birth to children knows not to mis-shape them. For, every child is a replica of God Himself in human form. The adage in Tamil "God and Child have both to be endeared" confirms the significance to be attached to the child's imagination.

The normal infant, the moment its powers of observation become stimulated, starts on a hundred mischievous activities. The child's enthusiasm for all objects on which its eyes alight, naturally draws it to them, to touch them, to handle them, in short, to possess them. Therefore, the child becomes irresponsible soon after it develops a capacity to observe life around. The fire, sharp-edged knife, the biting ant, the snake—almost all dangerous things, which to the adult are repelling, seem, to wean away the child's fancy to the extent of adding to its desire to touch them.



'All the world is a stage, and these children are preparing to play their part well.'

The adults' duty, hence, to the child is not to strike terror in its heart, but to stir its imagination in a manner so as to instruct its mind. If the child is constantly scolded or reprimanded for committing mistakes, according to elders, or from spoiling things unwittingly, it will only develop a fear-complex as years roll by. Instead of harsh language being employed to the child or severe punishment being meted out for any of its serious acts of spoliation, the child, if in time guided properly by its imagination being touched, better results will follow. Indeed, stories and fables describing qualities of prowess, heroism, truthfulness, service, kindness to animals, tenderness to younger children, and a host of moral, mental and physical sources of strength, easily make the growing mind self-educated. Further, the story and the fable, especially when it belongs to our *puranas*, has a tendency to inculcate in tender years a sense

of values in the infant. Right and wrong as well as greatness and goodness appeal to the child in a more vivid way by the story than by any piece of advice or admonition administered directly.

Great educationists all over the world, like Madame Montessori and Rabindranath Tagore, have successfully made experiments in child-education and have proved how the child's healthy imagination can be wonderfully employed by the age-old practice of story-telling.

With the gradual disappearance of the joint Hindu family, the place of the grand-mother too in it has vanished. Like of old she does not gather round herself the little urchins of the home and the neighbourhood for regaling their imagination with beautiful stories culled from our ancient *puranas*. Every time the grand-mother narrated the same old story, her imagination too clothed the old episodes with new decorations and in fresh costumes. Apart from the child's mind reacting properly to the virtues emblazoned in the *puranic* lore, the child's latent potentialities also present fine prospects for out-doing themselves. The child's perception of life receives also an unusual incentive to put forth its own personality in creative activities. More effective and convincing will be the panorama of figures of the heroes of old in the mind of the child when its imagination is deeply stirred by stories retold with vigour and vividness than all the pictures presented by Movies, even when their theme is a special one intended for children's consumption. Even as the little flower on the grass smiles with the first ray of the sun, even as the little calf frolics about with its first mouthful of milk, even so the child when enlivened by the story transports itself into a dreamland of wonderful existence. The dreams of the child are indeed, the latter realities of man.

Parents' Role in Industrialised Society

By SRIMATHI SAROJINI VARADAPPAN

During the last many years attention is being paid in an increasing measure to the education of parents on problems of child welfare. This work is stressed as essential all over the world and, therefore it is true much time and energy is spent on it. Schools offering courses on parent child relationship, case work, juvenile delinquency, medical and pedagogy problems and marriage guidance are functioning for the education of parents in the industrially advanced countries where both the parents are wage earners and workers. Before the appearance of the industrialised society, the family was primarily responsible for the bringing up of children. With the emergency of an industrialised society, fundamental changes have taken place in all spheres of life, destroying the very important role that family was playing particularly in the bringing up of children. This led also in the west to fundamental and violent changes in the relation between husband and wife, parent and child as well as in the role of the family in educating children. Therefore, it has become necessary for the State to take over some of the functions of the family and society by starting various welfare measures and public services for children, mother and others. As result of the family losing a series of its inherent and rightful functions, such as safeguarding the health of the children, radiating love and affection on the members of the family giving much needed company to children, answering their questions and playing with them, the Society and the State were compelled to step in and undertake certain obligation for the children, or at least for some categories of children. But the parents are not completely exonerated. On the other hand, they are expected to contribute to the systematic development of the 'social care' of the children when the 'family care' of the children has been denied to them. The parents in industrially advanced countries are fully aware that all the needs of the family and children could be met only if they themselves fully seconded the efforts of the Society and the State. Today we constantly meet with conflicts between the old and the new. Old

conventional family relations which were socially necessary and justified did not lead either to family or personal conflicts. Every member of the family had his own duties and responsibilities to the family and the children.

In the altered marriage relations the place of child in the family has completely changed much to the disadvantage of the child. All the changes, particularly personal conflicts behaviour of the child and the parent arising out of a broken home, drunkenness, etc., affect the normal healthy growth of the child's personality. Most shocking examples of this is noticed in the problems of family relations in towns and industrial centres inhabited by young people coming from the rural areas who are suddenly cut off from old traditions. Illegitimate children, and domestic quarrels and crimes—these are mainly the new phenomena. Therefore, there is need for a new approach to the problem of family relations with a view to enable the family to live in harmony which is very essential for the child.

One of the basic functions of the family in an industrial society today is to secure for the child its healthy emotional development and mental security. In the last few years the importance of the family circle for a sound physical and mental development of the child is stressed as of paramount importance. Recent investigation along these lines in the advanced countries of the west give us an insight into the whole problem. In any proposed centre for parents, its main aim should be (1) to aid parents in educating and bringing up children, (2) to inform parents of the various problems of education, the health and social child welfare, (3) to teach parents about their duties and rights in educating and bringing up children, (4) to inform parents of the instructions and organizations which could give them children the necessary education rest and recreation and (5) to emphasise the importance of a healthy happy family life.

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trials of indigous suitable vegetable foods for the children, in place of milk that is scarce. The public needs to be altered for many reasons.

Tow measures seem all important. One is that the highest priority must be given to making available to all children, such food and environment, care as will make it possible for them to grow up in health; the other is that all who deal with this problem from the highest level to the lowest from those who administer the country's health, or those who teach the medical students and undertake research, down to the *gramsevika*, should be constantly aware of their responsibility and of how to use the available resources and knowledge. Thus may our children be bright and bonny and Bharat-Mata like the Roman Matron of old, may point to them with pride and say "Here are my jewels!" (Contributed at the kind request of the Indian Council of Child Welfare).

(Continued from page 11)

loan of Rs. 12.46 lakhs, being 50 per cent of the cost and development of the land and cost of construction of buildings and an equal amount as subsidy. The actual cost of the scheme has exceeded the sanctioned cost, and the extra expenditure will be met by the State Government.

The maintenance of the houses in both these colonies has been entrusted to the Labour Department. A Managing Committee has been constituted for this purpose with two representatives each of the employers and employees and the Labour Officer, Madras, as the Chairman. This Committee is responsible for the allotment of houses according to the rules drawn up for the purpose by the Government and for the general maintenance of the colonies.

Eighty two houses in this colony have so far been allotted by the Committee. Drinking water-supply now available in the colony is limited. Special efforts are being made to expedite the provision of adequate water-supply, sanitary arrangements, school, shops, etc.

Price Stabilisation Board Suggested

Foodgrains Enquiry Committee Report

The main conclusion of the Foodgrains Enquiry Committee is that in a developing economy a secular tendency to price rise will exist, though prices will fluctuate. It is a part of economic growth to achieve adjustments between production, incomes, employment, demand, costs, prices, etc., at successive levels. It is sharp and abrupt rise or fall in prices, which causes all kinds of disparities and hardships to different sections of the people that has to be avoided.

The Committee has noted that the general price index in India declined by 17.6 per cent between the middle of 1953 and the middle of 1955 and then rose by 23.4 per cent by the middle of 1957. The price index of manufactured goods first fell by 2.8 per cent and then rose by 10.5 per cent during the same periods. As against this price index for cereals first slumped by 34 per cent and then shot up by 51 per cent. Although in 1957 all-India averages show only a small rise (4 per cent) in cereals prices as compared to the base year 1952-53, there have been large variations in certain regions. It is this relative instability of food prices causing wide fluctuations in the incomes of agricultural producers and of costs of living, costs of production, employment and other elements of the economy that forms the major problem.

Monetary factors.

The Committee is of the view that a large part of the rise in the general level of prices in recent years may be ascribed to a general increase in demand resulting from the increase in investment expenditure on public and private account accompanied by deficit financing and credit expansion during the last few years. As against Rs. 343 crores in 1953-54 and Rs. 476 crores in 1954-55, the plan investment went up sharply to Rs. 667 crores in 1955-56

and Rs. 761 crores in 1956-57 and is currently running at a budgeted rate of Rs. 900 crores. The money supply has gone up from Rs. 1,794.0 crores on 31st March 1954 to Rs. 2,240.2 crores on 31st August 1957 or an increase by 24.9 per cent in 3½ years. The rise of prices is, therefore, basically the consequence of the rate of economic development and its mode of financing. The experience of India in this regard is in conformity with that of a number of European and Asian countries during the last two or three years when there has been a general rise in prices almost all over the world. Inflationary trends in India during this period were by no means an isolated phenomenon.

Demand for foodgrains.

The general inflationary forces have tended to manifest themselves through various factors on the demand side for foodgrains. In recent years there has been a change both in the volume and pattern of food consumption of many sections of the people. People who used to live on roots like tapioca and sweet potatoes are now transferring their demand to millets or coarse rice and people who used to take millets formerly are now gradually shifting over so rice or wheat. Certain data collected by the Notional Sample Survey show that with the increase in the levels of income consumption of foodgrains per capita has increased substantially in the lower income brackets while it remained fairly stable in the middle income group. In fact in a country like India where the vast majority of the people are undernourished it will be surprising if consumption did not behave in this manner. The increasing tempo of industrialisation and urbanisation in the country has also had its effect on the consumption of foodgrains. One effect of these developments is to increase the demand for marketed surplus but another is also to increase

The Report of the Foodgrains Enquiry Committee has been released on November 19, 1957. The Committee was appointed on the 24th June last with Shri Asoka Mehta as Chairman, Shri Tharumal Rao, M. P., Shri S. F. B. Tyabji, M. P., Shri V. N. Tivary, Raja Surendra Singh of Nalagarh and Dr. B. K. Madan as members and Dr. S. R. Sen as Member-Secretary.

During the course of the enquiry, the committee visited 14 States, examined about nine hundred witnesses and received about a thousand memoranda. The Report of the Committee, which was submitted to Government early in November, contains 11 Chapters and a large number of charts and statistical tables. The Committee has confined itself to the basic problems relating to the production, distribution and prices of foodgrains in the country from an over-all point of view only. It has been unable to make any special study of the recent difficulties that resulted from drought in eastern India towards the closing days of its enquiry. It has expressed the hope, however, that the general recommendations that it has made for some of these areas, if implemented, will go a long way in preventing similar distress in future.

the demand for rice and wheat as against millets and minor foods. The Committee has pointed out that during the First Plan period if the consumption of foodgrains has gone up by about 14 per cent that of other consumer goods like cloth, tea, sugar, vanaspati, soap, etc., has gone up to a much greater extent.

But changes in the demand for consumption was not the only factor on the demand side. From the short-term point of view changes in the propensity to stock was even more important. As a result of sharp fall in prices stocks had fallen to very low levels by the middle of 1955. As the expectation of fall in prices was replaced in 1956 by an opposite expectation, traders were reported to have started once again to build up their normal pipe-line stocks. This operation coincided with the phase of low production and rising development expenditure and was assisted by the credit supplied by commercial banks. In 1955-56 most of the stock-building was done by traders. But in 1956-57 there was a significant change and a large part of the stock-holding was done by big and medium producers as well.

Production

While general inflationary forces as well as factors operating specifically on the demand for foodgrains accentuated the rising trend in prices, changes in the supply situation of individual crops usually initiated the uptrend in prices of particular foodgrains in different periods and in different regions. The Committee got a number of special surveys carried out by a number of official and non-official research organisations in regard to production and marketed surplus. As a result, it has come to the conclusion that there is broad correspondence between changes in production as revealed by official statistics and as disclosed by the special surveys for the years 1955-56 and 1956-57. It has pointed out, however, that the actual increase in production during the First Plan period, i.e., in 1955-56 over 1949-50 was of the order of 13.7 per cent or roughly 7.3 million tons of foodgrains as indicated by the production indices issued by the Ministry of Food and Agriculture and not 20.8 per cent as indicated by the unadjusted figures of production. The increase of 7.3 million tons during the First Plan period does not appear to compare unfavourably with the target of 7.6 million tons.

There was, however, a fall in production of millets to the tune of over three million tons in 1955-56. It was this fall which initiated the price up-trend in the autumn of 1955. The prices of millets rose sharply at first. As a result, there was an increased

pressure of demand both on rice and wheat. In 1956-57 there was an increase in the production of rice and wheat as well as millets. But the production of millets was still over two million tons lower than in 1954-55. Hence, the pressure on rice and wheat from the normal consumers of millets continued during that year too. Larger supplies of wheat were available from imports and, therefore, the rise in wheat prices was relatively less towards the end of 1956-57. As regards rice, prices at first showed a declining trend in 1956-57 as crop prospects were good, but tended to firm up in earlier months of 1957 as it became clear that the market arrivals were slower than usual and that stocks with Government were also low.

Marketed surplus

The Committee, has, however, emphasised that it is variations in marketed surplus even more than variations in production which are important from the point of view of prices. Unfortunately, the information available about marketed surplus is very sketchy. Partly in consequence of this lack of data many people tend to equate variations in production with variations in market supplies which is highly misleading. The broad picture that has emerged from the data collected by various research organisations on behalf of the Committee, is that stock-holding at the farm level has increased considerably in 1956-57 as compared to 1955-56. Less than 60 per cent and in some areas even less than 50 per cent of the crop came to the market in 1956-57 within two or three months of the harvest as compared to 70 to 80 per cent in normal years. Sales in the middle, and to some extent, even in the end, of the season became relatively more important. In 1955-56 prices declined in the earlier part of the year after the harvest when cultivators sold out the bulk of their grain, but rose sharply later. In 1956-57, therefore, cultivators became more cautious and tried to reduce sales in the earlier part of the season in expectation of a repetition of the experience of 1955-56 during a general inflationary situation. By acting thus in 1957 the cultivator only conformed to a long-accepted objective of agricultural credit and economic policy, which has been to improve his staying power with a view to preventing distress sales by him immediately after the harvest with a consequent sharp drop in prices.

The gross availability of foodgrains per capita declined from 18.1 oz. per day in 1954 to 17.1 oz. per day in 1956. No doubt, in 1957 the gross availability per capita is likely to be almost the same as in 1954. But, if one takes into account the increased retention by the agriculturists that seems to have taken place in the year 1956-57, it is likely that the net availability per adult for the non-farm section of the population will have declined.

The Committee has noted that the ideal of food self-sufficiency could not be fully achieved because, in practice, it turned out to be a 'moving target', in a country in which large masses of the population were under-fed and even a small increase of production and of income led to a substantial increase in consumption.

Thus, in the Committee's view, the rise in prices since the middle of 1955 was essentially an out-come of monetary and other general factors interacting on certain special factors pertaining to the demand and supply of foodgrains. With a situation generally favourable to a rise in the prices of foodgrains, it was first the short-fall in production and later the slowing down in market arrivals which released the spring, as it were, and pushed the prices of foodgrains sharply upwards from the low levels to which they had fallen in 1954-55. But even in normal times there are seasonal falls and rises in prices. Similarly local fall and rise in prices or failure of one or the other food crop also are not unusual in our economy. When, however, any of these things happened in the background of a buoyant trend in the general price level caused by inflationary forces, a rise in the price of a particular grain, whether due to seasonal factors or local crop failures or governmental purchases tended every time to leave a residue behind it as it were, a residue which usually tended to spread itself to other grains also.

Epicentres for price rise.

There were a number of areas in the country from which scarcity conditions were reported from time to time and which at one time or other became the epicentres as it were of price rise for the neighbouring regions. The publicity given to stories of distress attendant upon emergence of scarcity often started scare which set in process the familiar vicious circle of speculative



Sri C. Subramaniam, Minister for Finance, inaugurated in Madras the Small Savings Campaign for the Southern Region in the Second Week of November.

hoarding and price increases. Under normal conditions this process could not have persisted in face of the technical demand and supply position. In an inflationary situation, however, the role of expectations increases and the price tends to settle at a level higher than what would be warranted by purely technical demand and supply factors. The scarcity pockets have been classified by the Committee into four main types. Firstly, there are areas like eastern U.P. and northern Bihar which have a very dense population, extremely small holdings and low per capita income, and are mainly paddy-growing areas with heavy rainfall and subject to frequent floods and other natural calamities. In these areas the rural people live in a precarious condition and when either floods come or rains fail, there is acute distress. In the lean season, prices tend to spurt up even on a slight

disturbance making these areas epicentres for further rise in prices in neighbouring areas. Secondly, there are areas like the districts of West Bengal near Calcutta with similar economic and demographic conditions where the disturbing factor is often the pressure of demand supported by high purchasing power from the neighbouring metropolis whenever prices there tend to go up for any reason. Thirdly, there are the dry areas, e.g., some of the millet growing areas of Western India and the Deccan plateau which have relatively sparse population with scanty rainfall. The yield of land in these areas is usually poor and the income of the farmers is also amongst the lowest in the country. These areas are subject to frequent drought which initiates the usual vicious circle of failure of crops followed by rise in prices, scare amongst the people, hoarding and further rise in prices. Fourthly,

there are the tribal areas, e.g., in Assam or Central India, where per capita income is low, transport cost is high and the economy is not only primitive but also often isolated from the rest of the country. Any failure of the local crop leads to unusual distress in these areas. It is, however, primarily the first three types of scarcity areas where the first signs of difficulty manifest themselves. To the extent that corrective action is taken in time, scare and panicky rise in prices can be prevented. On the other hand, to the extent that there is delay in taking action in these areas even a small shortage may lead to a disproportionate rise in prices and consequent hoarding and fall in market supplies especially when general conditions are inflationary.

The Committee has emphasised that in a developing economy like ours there is always the risk that disparities

Long-term Arrangement with Burma for Import of Rice Necessary

of various types will tend to get aggravated unless special care is taken to even them out. Prices may rise faster at times due to a temporary imbalance of supply and demand. With a quickening pace of development, these disparities are likely to become greater. It should, therefore, be an object of Government policy to keep a careful watch over likely development of such disparities and take timely action to minimise their harmful effects.

Future prospects.

As regard the future, the Committee has estimated that given normal conditions, the demand for foodgrains in 1960-61 will be of the order of 79 million tons while production will be 77 million tons. There will be thus a deficit of about 2 million tons per year even at the end of the Second Five-Year Plan. If there is a sharp inflationary trend, the demand may be even higher while if there are adverse weather conditions the production may be substantially lower. Moreover, there may be additional demand on account of variations in propensity to stock. The Committee, therefore, feels that even in a normal year there

will be need for importing two to three million tons of foodgrains per annum during the next few years.

Full decontrol and full control ruled out.

According to the Committee, the experience of the last few years has shown that unfettered private trade is undesirable because it tends to aggravate price fluctuations and impede the course of planned development. On the other hand full control in the sense of complete rationing and procurement that we had before 1953 does not also seem desirable under the present circumstances. The Committee feels that full control should be resorted to only in case of emergency like war or famine or extreme inflationary pressure. It should not be visualised as a permanent feature of our developing economy.

Countervailing measures.

The Committee, therefore, feels that the solution of the food problem would have to lie somewhere between complete free trade and full controls. Controls should be of a countervailing or regulatory rather than restrictive type. The main objective of the type of

controls that the Committee has in view is to stabilise prices of foodgrains as also other related commodities as far as practicable. At the same time, the Committee warns that any rigid integration of the price structure is neither feasible nor desirable. So long as prices move gradually allowing costs and incomes to get adjusted, there is really not much to take exception to in such price fluctuations. Only such changes in prices as are liable to get far out of step with costs and incomes should be avoided.

Since imbalances in the economy are of different kinds and intensity, they lend themselves to treatment through varied combinations of measures of general or overall control and specific regulation adopted to the nature and severity of the particular situation. Some of these actions have to be overall, e.g., monetary or fiscal and some have to be selective, e.g., direct purchase and sale of particular foodgrains, licensing of dealers in foodgrains, etc. If, however, the magnitudes of deficit financing together with development expenditure imposes strain on the economy that makes a certain rise in prices inevitable, then any other measures that may be taken can only modify to some extent the impact of that rise in prices but cannot completely obviate it. While the general climate would be set by appropriate fiscal, monetary and credit policies, it is obvious that in the general economic and monetary situation that is likely to prevail for some time, these have to be supplemented by certain specific action directed to controlling foodgrains and also in respect of related commodities if comparative stabilisation of their prices is desired. These measures are, however, to be used judiciously and in different combinations under different circumstances.

Prescription for different situations.

For the present, it should ordinarily be sufficient to undertake open market purchase and sale of foodgrains by the Government as a regular measure. Socialise part of the wholesale trade, exercise control over traders operating in the rest of the market through a system of licensing, maintain a sizeable reserve stock of wheat and rice, arrange for the regular import of a certain



Miss Marian Anderson, the World renowned American Contralto gave performances in the City in the second week of last month. She is seen here with the acting Governor Sri P. V. Rajamannar, looking into an album of photographs of her visit, prepared by the Information Dept. and presented to her, on behalf of Govt. by Sri W. R. S. Sathianadhan, Chief Secretary to Govt.

Priority for Import of Fertilisers

quantity of rice and wheat and organise propaganda for the consumption and production of subsidiary food. But in a period of rising prices it would be necessary to supplement the above by much larger imports, direct sales of cereals by Government through modified ration shops, formation of zones with a view to preventing cross-movements and undue pressure on local supplies and limited compulsory procurement by Government in surplus areas for replenishing its reserve stocks. In periods of sharper inflationary trend the above may have to be further supplemented by compulsory issue of wheat 'the supply position of which is relatively easy) along with rice (of which the supply position is more difficult) from modified ration shops, announcement of prices at which Government will requisition surplus stocks and temporary cordoning off of big cities like Calcutta, Madras, Bombay, etc., if the overall food-situation deteriorates. In periods of sharp deflationary trends on the other hand, the action to be taken should include announcement of guaranteed minimum prices supported by accelerated purchases of foodgrains in the open-market by Government, subsidised sale of fertilizers, iron and steel, etc., to farmers and acceleration of local development works in depressed areas. The announcement and enforcement of minimum prices throughout the country should be necessary in conditions when there may be a possibility of prices falling sharply. The cultivator does require the assurance that prices will not be allowed to fall below economic levels to maintain his incentive to invest in the improvement of his farm and, thereby sustain the basis of progressive agriculture and augment marketed surplus. Announcement of a minimum price would become essential if certain areas are cordoned off for facilitating certain operations.

Price stabilisation.

Market operations will obviously have to be carefully planned and conducted from time to time in different commodities, in larger or smaller areas and in varying magnitudes according to need. It is necessary for this purpose to have an effective organisation for keeping a constant watch over the situation, making a realistic assessments not only for current trends, but also future prospects, and prescribing measures to be taken under different

circumstances as well as an adequate machinery for carrying on the necessary market operations.

The Committee, therefore, recommends firstly, the setting up of a high-powered authority for the formulation of the policy for price stabilisation in general and determining the programme for enforcing it from time to time and, secondly, the establishment of a suitable organisation to execute that part of the policy and programme framed by this authority as may relate specifically to purchase and sale operations in the field of foodgrains. The policy-making body may be called the "Price Stabilisation Board" composed of representatives of the Ministries of Food and Agriculture, Finance, Commerce and Industry and Railways, Planning Commission and the Reserve Bank of India with a Chairman of the status of Secretary to the Government of India. Food, no doubt, forms the core of our price structure, but prices of competing crops like cotton or oil-seeds and of industrial products like cloth, fertilizers, iron and steel, etc., are all very important from the point of view of an effective price policy for the country and have to bear a reasonable relationship of food prices. It is only a high-level authority as proposed above,

which is properly integrated into the machinery of decisions within Government on economic questions, that will be able to deal effectively with the problem of price stabilisation. As regards the executive organisation for dealing specifically with foodgrains, the Committee recommends the setting up under the Ministry of Food and Agriculture a separate body called the "Foodgrains Stabilisation Organisation". It further recommends that a body of non-officials called Central Food Advisory Council should be set up to assist the Food Ministry and the Price Stabilisation Board. The Council should be composed of representatives of agriculture, trade, workers, industry, consumers, banking, co-operatives, leading political parties and economists. The Committee further recommends that an organization for collecting all relevant intelligence called "Prices Intelligence Division" should be built up with a senior officer as head who will also act as Secretary to the Price Stabilisation Board. It emphasises that an all-India average index of wholesale prices cannot bring out adequately the various—regional and sectoral disparities which create difficulties in the economy. If there are

suitable regional indices as well and a careful watch is kept over them, one would be able to know from the way that pressure points develop in the economy as to what is the real source of trouble, what is the real impact of it and its likely significance in the future. For, it is these disparities manifesting themselves in different regions and different sectors which are often the early symptoms of wider imbalance in the economy.

Foodgrains Stabilisation Organisation

While the Ministry of Food and Agriculture will continue to be generally responsible for overall food administration, the Committee feels that it will be desirable to have under it a separate organisation called Foodgrains Stabilisation Organisation as has been mentioned earlier. The most important work which this Organisation will be required to undertake is what is commonly known as buffer stock-operations. The buffer stock operations can be a most effective instrument for the stabilisation of prices of foodgrains. The main idea of such operations is simple. Whenever prices tend to fall, even if such a fall is not general, but is confined to a particular locality, this Organisation should step in and start purchasing at reasonable prices. Similarly, when prices tend to rise this Organisation should sell at reasonable prices. If the Organisation starts operating from a position of strength, with sufficient stocks at its disposal and sufficient funds to invest it will soon find itself in the position of a dominant trader in the economy and will be able to control the market effectively. It will then be able to counteract the market trend seeking to depress prices when the market is rising and support prices when the market is falling. This would go a long way to protect both the producer and the consumer against violent fluctuations in prices. If the Organisation purchases the surplus crop of a bumper year and carries it over to future years of short crop, it should be able to even out fluctuations. Its own agencies in all important mandies should ensure for it a fairly substantial volume of business. Besides, it should also be able to purchase fairly large quantities from depressed pockets where competition from the trade is usually weak. Ordinarily there should

be no risk of loss for such an Organisation, especially over a long period of say five years. Even if there is some loss it would be a worth-while premium to pay for insurance against inability.

In the initial stages this Organisation may face stiff competition from traders. Government should, therefore, take special measures to build up a position of strength for this Organisation in the early stages, by way of credit and transport facilities. One should, of course, proceed gradually and not take any action which may unduly upset the market in the near future. But the Committee feels that step by step conditions should be created so that in the course of the next three or four years the Foodgrains Stabilisation Organisation may be in a position to control a substantial proportion of the wholesale trade in the country. The ultimate policy should be that of progressive and planned socialisation of the wholesale trade in foodgrains. The Committee points out that its proposal is by no means a very novel or revolutionary suggestion. In many important countries of the World like Canada, Australia, Burma, Italy, Japan, etc., agricultural commodities in general and foodgrains in particular have been subject to a very large degree of State intervention. It is not really necessary that this Organisation should itself undertake all the operations. It may operate through the agency of licensed wholesale dealers or co-operative societies. It may also make use of the Departments of Civil Supplies or Marketing of State Governments. In addition it may have its own purchase and sale offices too. The important thing, however, is that any agent that it may employ should not be permitted to act on his own account.

Procurement

While the Foodgrains Stabilisation Organisation should be able to control a large part of the marketable surplus, during normal years, in the immediate future so long as inflationary trends continue and food shortage persists, open-market purchases may push up prices so that the organisation may find it necessary to stop its operations. Therefore, it will be necessary to undertake some form of compulsory procurement for replenishing the reserve stocks and maintain supplies to the

vulnerable groups of the population at reasonable prices. For the present no compulsory procurement of wheat or millets may be necessary. Whatever may be purchased from the open-market should suffice. So far as rice is concerned, however, it will be necessary to resort to some form of compulsory procurement to ensure that at least 6-7 lakh tons of rice is procured from surplus areas in the country. There are several ways in which compulsory procurement may be enforced. The simplest way would perhaps be to cordon off certain areas, e.g., Orissa, Punjab, delta districts of Andhra Pradesh and Chhattisgarh division of Madhya Pradesh and make the Foodgrains Stabilisation Organisation the sole buyer in these areas for the purpose of export. It would be, however, essential not only to ensure that the prices ruling in the cordoned districts are reasonable and are not substantially lower than those obtaining at least in the harvest time in neighbouring districts but also to provide special Grow More Food assistance to the farmers of the cordoned districts to obviate any sense of grievance that the rest of the country is exploiting them unduly. If it is felt that in any area cordoning is not practicable for some reason, certain alternative systems of procurement may be tried. One alternative may be a levy on all rice and flour mills as also on all private traders making purchases in major primary mandis. Another alternative is a fixed levy of foodgrains for every acre of land which a farmer possesses above a prescribed limit, say 10 standard acres.

Price ranges

The range of prices at which the Foodgrains Stabilisation Organisation may operate on its operations may be determined every year and from time to time by the Price Stabilisation Board taking into account different relevant factors and in consultation with the Central Food Advisory Council. While a number of alternative formula may be taken into account, the final decision would have to be taken by the Board on a somewhat *ad hoc* basis. It has been the experience of most countries that no single formula can fully cover all contingencies.

Licensing of traders

One of the key measures that would be necessary for making the system proposed above really successful will be the licensing of all dealers in foodgrains.



United Nations Day was celebrated in Madras City with Great Enthusiasm. A large and public meeting was also held in that connection at Rajaji Hall. Chief Minister Kama Raj Sri R. Venkataratnam, Minister, Dr. A. L. Mudaliar, Dr. C. P. Ramaswamy Iyer and Dr. M. Varadarajan addressed the meeting.

An order on the lines of the Foodgrains (Procurement and Licensing) Order, 1952 should be issued under which all traders and big producers in the country who may deal in and stock more than 100 maunds of foodgrains should be required to take a licence. One of the terms of the licence should be that traders will submit fortnightly returns of their stocks, sales and purchases to the prescribed authorities.

Stocks

One of the most important task of the Foodgrains Stabilisation Organisation would be to build up and maintain a reserve stock of 2 million tons as distinct from any buffer stocks that it may build up from operational considerations. It was the experience of 1955 that even a stock of 1.5 million tons was not sufficient when a real crisis began. The reserve stocks should be maintained at strategic points.

Imports

The Committee emphasises that it would not be possible for the country either to build up necessary reserve stocks or to meet the requirements of the vulnerable groups of the population without substantial imports during the next few years. Our food supplies would continue to be marginal for a long time to come, and an annual import of the order of 2 to 3 million tons would be necessary for some years. From the point of view of the food administration import has a certain advantage over procurement. All the imported grains come through the authorities and the entire amount is available for distribution. On the other hand, procurement can only be during inflation of the production. Although inevitable it gives a support to the price level which does not get fully reflected when the procured quantity is released. It is, therefore, important that we should make an effort to enter into a long-term arrangement with Burma for the import of rice. It would be also to our advantage to take fairly large quantities of wheat and some quantities of rice from the U.S.A. under P.L. 480. For imports under such concessional terms not only relieve us of immediate foreign exchange commitments but also help us to build up a rupee fund which can be utilised for developmental purposes.

Food Distribution

So far as food distribution is concerned, it should be primarily through

fair price shops or modified ration shops or through institutions like co-operative societies or employers' organizations. Sales from fair-price shops, etc., should be normally made on a "no-profit-no-loss" basis, so far as Government is concerned. This in itself should prove to be of benefit to a large group of people. In view of its relatively easy supply position, wheat may be issued freely up to a full quota of 12 oz. per adult per day from these shops. But the issue of rice should vary from region to region between 4 oz. and 8 oz. and should be subject to the purchaser agreeing to take the balance of 12 oz. in wheat. This will not only help in economising rice but also in popularising wheat. While sales from fair-price shops should be normally made on a no-profit-no-loss basis, there would always be a number of people in different areas served by a fair-price or modified ration shop for whom even that price will be too high. Suitable provision should be made for providing relief to such distressed groups of population. Whatever subsidy the Government can afford to pay should ordinarily be reserved wholly for such distressed groups and not distributed equally to all purchasers of foodgrains from fair price shops as is the case today. Each fair price or modified ration shop should be given a limited number of what may be called "relief quota cards". The issue of these cards may be limited to special categories of persons, e.g., expectant and nursing mothers, sick and convalescents, teen-age children of families below a certain per capita income limit. A rule should be made that in no case should subsidised grain be sold except on the basis of "relief quota cards".

Big cities

If there is an abnormal fall in production, larger imports are not available it will be helpful if big cities are cordoned off. The main justification for cordoning off these big cities will be primarily to insulate the rest of the economy from the pressure that these cities with high purchasing power might exert on the general supply. Some of these cities tend to have a destabilising influence on the prices of foodgrains in neighbouring rural areas. The cordoning off of these cities will go some way to relieve distress in these latter areas. If all individuals in these cities are provided with identity cards and a large number of modified ration shops is maintained

as a normal measure, it should not be difficult to cordon off these cities at short notice.

Zones

With a view to regulating the distribution of foodgrains in the country Government have created a number of zones each comprising of two or more States during the last one year. The Committee recognizes that these zones by themselves play a useful role especially during the transition period between free trade and physical controls. But, if zones are introduced in a haphazard manner and without proper attention being paid the effect that they are likely to produce on the consumer outside the zone, there may be considerable dislocation and distress in the initial period. Prior arrangements for adequate supplies for deficit areas outside the zones should invariably be made before any scheme for zoning is implemented. Once a zone is formed it should be maintained on a fairly long-term basis so that trade patterns are not frequently disturbed. It has been suggested that it may be necessary to increase the number of zones to help the working of the Foodgrains Stabilisation Organisation. While the Committee would not rule out this possibility, it feels that one way of getting the same result without increasing the number of zones may be to exercise a greater control over long distance movement of railway wagons carrying foodgrains. In fact, if railway wagons for moving foodgrains between two points in two different States are given largely to the Foodgrains Stabilisation Organisation that would by itself go a long way to bring about the desired result.

Measures for vulnerable areas

In view of the large regional disparities of price movements and importance of local price rises, the Committee recommends that a special cell or section should be set up within the State Governments with particularly heavy incidence of scarcity and also at the Centre within the Food Ministry for the purpose of anticipating difficulties arising out of possible floods and drought, locating scarcity pockets and initiating prompt measures to deal with them. Such organisations are important for preventing scarcity developing into a scare and causing speculative rise in prices in other areas. The chronic distress that obtains in vulnerable areas, e.g., eastern U.P., western Madhya Pradesh, eastern and

northern districts of West Bengal, Rajasthan, Rayalaseema and tribal areas is not merely due to physical shortage of foodgrains but also due to lack of purchasing power. Special agricultural, industrial and public works programmes will have to be undertaken in these areas with a view to improving the purchasing power of vulnerable groups. The Committee, therefore, recommends that the Development Commissioner in each State should be made specially responsible for the development of these schemes in these areas. The problems of these areas should also receive special attention at the hands of the State and Union Governments in such adaptation of the development programmes and projects as might be considered from time to time.

Frequent scarcity replaces infrequent famine

In the old days when transport facilities were not properly developed these vulnerable areas alternated between normalcy and famine. As a result of the development of transport facilities famine in the sense of actual physical shortage of foodgrains is now a thing of the past. On the other hand, because of the development of new urban or industrial areas as in Bihar, the pressure on marketed surplus has increased resulting in shortage in the lean season in the rural areas. Therefore, instead of the old phenomenon of infrequent severe famine we find now a-days a situation of frequent scarcity in the lean season. This situation is a natural result of the growth of transport and industries in the country and is incidental to economic development. An effective corrective to it can be provided only by programmes which improve the economic condition of the rural population. It is also necessary to promote arrangements to conserve more grain in the rural areas for the lean season. The Committee suggests that for this purpose village panchayats and co-operatives should be encouraged, through advances where necessary, to set up grain godas on the lines of those set up in Orissa in recent years where sufficient quantities of grain should be stored for the lean months. It would also be desirable to liberalise the famine code which was originally drafted to take care of a different type of food shortage to provide now for this new type of seasonal shortage also. Provision for funds for test relief works and distribution of relief quota cards should be more

liberal in these vulnerable areas. The more effective and permanent remedy will be, however, setting up of rural industries and improvement of local agriculture by undertaking appropriate development measures.

Subsidiary food

The Committee has further recommended that urgent and effective measures should be taken for encouraging the production and consumption of subsidiary food to the maximum extent possible and for this purpose a special Division should be set up in the Ministry of Food and Agriculture at the Centre as well as in the States.

Food production.

As regards production, the Committee has said that a realistic estimate of additional production during the Second Plan period would be 10.3 million tons or approximately two-thirds of the planned target and that to achieve even this lower figure would require greater effort. In saying this, however, it does not advocate a revision of the target of 15.5 million tons fixed by the Planning Commission. In fact it believes that if full use is made of all our resources it may still be possible to reach closer to the planned target than the above estimate. The prospect of a short-fall from the planned target has, however, to be faced, unpalatable though its implications may be. It has, therefore, made a large number of recommendations for stepping up food production, the more important of which are given below.

Irrigation

The Committee has recommended that a careful examination should be made of all major irrigation schemes and if there is any shortfall in expenditure on them, the funds that may remain unspent should be reallocated to minor irrigation which has yielded quicker results during the First Plan period. The procedure for such reallocation may be examined and, if possible, simplified. The Committee feels that there is considerable justification for adopting the principle of "net benefits" for the fixation of water rates. Besides there is need for uniformity of rates in homogeneous tracts. In areas where full use of irrigation facilities needs to be encouraged, cultivators should be supplied irrigation water at concessional rates during the first few years. In these areas, the Community Development Organisation should make an intensive

effort to teach the cultivators the use and benefit of irrigation. In areas of considerable rainfall, where irrigation is used for security measure double cropping should be encouraged by way of concession or exemption from water charges for the second crop. In areas of inadequate soil fertility, the benefit of adequate water supply is dependent on greater use of fertilizers and manures. In these areas there is need for an irrigation extension service for promoting proper farm management practices. The layout and construction of the distributory system should be done after proper consultation with local people and after taking into account the special needs of each locality. Problems of water logging in the wake of canal irrigation such as those in the Punjab, and the problems created by construction of embankment, such as those in Assam, need attention. Major irrigation works which have already been undertaken and in which foreign exchange requirements are not very large, such as the Bhadra Project in Mysore, should be allocated the necessary foreign exchange for the completion of the present phase of the construction. Where canal irrigation is introduced, the cultivators should be helped with credit and other facilities to prepare his land for wet farming. At many places, attempt to work tubewells on a "no-profit-no-loss" basis has started a vicious circle of high rates, low utilization and further increase in rates. Water rate problem should be solved on the lines suggested for major irrigation. There is a general complaint that old irrigation works are not being properly maintained especially those formerly being looked after by zamindars. Grower's co-operatives should be encouraged to undertake this responsibility as recommended by the G.M.F. Enquiry Committee. The allocations for minor irrigation should be separated out in two accounts; one for repair and maintenance and the other for new projects. The repair of existing works should be given as high priority as construction of new ones.

Seeds and fertilizers

Not much progress has so far been made towards setting up seed multiplication farms. Procedure for acquisition of land for the purpose should be simplified so as to avoid delay. The number of seeds stores in each block should be increased. On balance, the import of fertilizers appears to be definitely more advantageous than

import of foodgrains. Over 5 years the value of additional foodgrains production with the application of fertilizers would come to about Rs. 268.8 crores whereas foreign exchange outlay for the entire import programme (including demand for commercial crops) would work out to about Rs. 101.3 crores. If the present foreign exchange position does not permit imports of fertilizers to the extent necessary even to meet the planned targets, not to speak of actual requirements which are now running ahead of the planned targets, than the setback to the increased food production would be serious. The Committee considers fertilizers to be of fundamental importance because of the important role they play in extension work. Fertilizers break resistance of the cultivators to new improved farming techniques.

The Committee, therefore, recommends high priority for import of fertilizers and also the setting up of more factories for producing chemical fertilizers in India. One way to meet the foreign exchange requirement that would arise in this connection would be either to invite foreign firms to participate with Government or with private enterprise in setting up these factories or even to give them scope to set up factories in their own. As regards manure, the Committee emphasises the urgent need to develop local manurial resources, e.g., night soil, farm yard manure, compost and green manure.

Land reforms

The Committee has noted that uncertainty about land reforms is affecting productive effort and recommends that the State Governments should proceed expeditiously with enacting the necessary legislation for land reforms and follow it up with effective implementation.

Marketed surplus

The food needs of the urban areas are expected to increase considerably in the course of next few years and as the tempo of development and urbanisation increases, the flow of surplus from the rural areas is likely to become uncertain. It is imperative that necessary measures be taken in the first place, to augment the total marketed surplus and, in the second place, to encourage its flow to the assembling markets for augmenting marketed surplus. Facilities like grain golas need to be provided

in the rural areas so that while the cultivator is encouraged to part with his grain after the harvest, he would not be left high and dry in the subsequent lean part of the year. Another way of augmenting marketed surplus in the rural areas would be to link the supply of credit by the co-operative societies with the marketing of produce. The Committee recommends that in the Community Project Areas special efforts may be made to make the farmer market conscious, encourage him to sell more of his produce in exchange of industrial goods and thereby ensure that increased production in these areas is reflected in the marketed surplus. For encouraging the flow of surplus from the rural areas to the assembling markets, it is necessary that the markets should be regulated. Arrangements should be also made for the collection of all relevant data including information on market sentiments and expectations which affect the course of prices.

Eastern U.P.

Detailed and intensive studies of all chronic scarcity areas should be taken up at an early date. The root causes of the food problem in the eastern districts of U.P. are very high density of population, low cultivated area per head of population and poor yield per acre. The per capita cultivated area is likely to fall further in the years to come. There being little scope for extension of cultivation, production can be increased only by increasing the yield per acre and the area under double cropping. Water level in these districts being high, masonry wells provide a cheap and ready means of irrigation and stress should be laid on the construction and repair of these wells. A drive for the promotion of co-operative servicing and better farming societies is called for in these areas. The pace of progress of flood control schemes is poor and needs to be stepped up. While normally the problem is only of supplies to meet the deficit in this area, in a year of poor crop there is the additional problem of making supplies available at cheap rates. Arrangements for Government supplies to these districts on a continuing basis will be necessary. Exports of foodgrains on private account from these districts should be banned. It is necessary to correct the unbalanced character of the economy by increasing and diversifying employment opportunities through

promotion of village and small-scale industries besides provision of better irrigation facilities for agriculture and protecting the economy against flood hazards.

Population control

The Committee further points out that for an effective solution of the food problem, not only determined and all-out efforts to step up production have to be made but the high rate of increase of population has to be checked. It has, therefore, urged that a nation-wide campaign for family planning enlisting the efforts and energies of social workers, particularly women, medical men, scientists, sociologists, economists, administrators and political leaders should be launched.

Food problem should transcend party considerations

The Committee concludes its report by emphasising that the gravity of the food problem demands national efforts transcending regional and party considerations. Given a sympathetic policy and helpful administration the Committee has no doubt that our cultivators are capable of greatly accelerating production. What is needed is a sense of urgency and mobilisation of popular energies on a national scale. Success of food policy, in the conditions prevailing, demands understanding and co-operation from the people. In the great experiment of economic development through political democracy that our country is engaged in, the crucial position is occupied by food policy.

Paddy yield of 7,000 lb. shown by Tiruchi Competitor

A spectacular yield of 7,000 lb. paddy per acre was shown by Sri P. N. Nataraja Pillai of Pachur, Lalgudi taluk, Tiruchirappalli district in the crop yield competition organized in that district for 1956-57. He has secured both the taluk and firka prizes, while the district prize is yet to be announced. Other firka prizes have been awarded to Sri A. K. Gopinath of Sriramasamudram (Thottiam Firka) on a yield of 6,260 lb. paddy per acre, Sri N. Duraisamy Udayar of Erayur (Valikondapuram Firka) on 5,920 lb. and Sri P. Krishnaswamy Naidu of Maruvathur (Kannanore Firka) on a yield of 5,745 lb. per acre.

Tamil as Official Language

The Revenue, Public Works Department, Hindu Religious and Charitable Endowments and Education Departments are among others, in the first batch of Department chosen by Government for using Tamil in their correspondence, under the Official Language Act.

The consideration in the process of implementation of the Official Language Act will be that the introduction of Tamil as the Language of correspondence of any department should not result in any deterioration in the quality or pace of disposal of business in the Department. Subject to this condition Tamil will be introduced, as official language in the offices below the level of the Heads of Departments. In the first instance in all offices (other than Courts) where English typewriters have not been sanctioned, Tamil will be introduced as the language of correspondence as soon as the standard glossary of administrative terms is supplied to them.

In regard to other offices, they will be taken up in convenient batches, the order of preference being determined

with reference to the extent to which the general public, particularly the ryots in the villages, have to deal with them.

The following Departments will constitute the first batch:—

- (a) Revenue Department (including the offices of the Block Development Officers).
- (b) Public Works Department (Irrigation and Electricity).
- (c) The Hindu Religious and Charitable Endowments Departments.
- (d) The Education Department.
- (e) The Local Bodies.
- (f) The Department of Agriculture.
- (g) The Co-operative Department.
- (h) The Village and Panchayat Courts (All other Courts will be taken up only after the translation of the various Acts and after making sure that all legal points can be expressed with precision in Tamil. The Bills and Acts and the several statutory notifications will continue to be in English till Tamil is introduced in all

Courts, other than the Village and Panchayat Courts.)

In the meantime Printing and Distribution of the Standard Glossary and Tamil translation of the District Office Manual to all offices and preparation of supplementary glossaries will be taken up, as also standardisation of the key-board for the Tamil typewriters and arranging for the supply of Tamil typewriters to Government Offices; and translation of the Departmental Codes, Manuals and Forms.

The switching over to Tamil medium will be effected after due notification under the Madras Official Language Act, 1956. With immediate effect from the date of switch over, the concerned Departments will issue all communications or orders to the general public or the private individuals only in Tamil. But the use of English is not precluded even in these Departments as for example in Taluk Offices, reports on suit notices and suits will have to be sent in English till the translation of the Acts concerned become available. The use of English will, however, be reduced to the minimum.

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A Feast of Colour

Progressive Painters Exhibition at the School of Arts

By SRI K. N. RAMACHANDRAN.

The Exhibition of Paintings, Sculptures and handicrafts, organized by the Progressive Painters Association, Madras, got off to a flying start when, on 7th November at 6 p.m., it was declared open by Sri P. V. Rajamannar, the acting Governor of Madras. It is difficult to conceive of a person better fitted to do this. For, apart from his eminent social and official position, Sri Rajamannar is acknowledged as a lover, connoisseur and patron of art. He besides is a friend of the artists in the best sense of the term.

As expressed by Sri K. C. S. Paniker in his speech welcoming the Governor, the current exhibition is significant in that it holds up a powerful trend that has been influencing the Madras artists, viz., response to colour.

Appropriately enough Paniker's pictures stand out as masterly exposition of colouring and his influence is seen in most of the works exhibited by the other artists. But the influence is confined to the line of approach and has not affected the individuality of artists. Thus there is diversity of expression and thought. This is as it should be.

Oils predominate and the palette knife treatment has captivated many artists. The water colour medium for which Madras used to be well known is poorly represented both in number and quality.

Coming to individual artists, among those who are either students or who used to be students till very recently, Sri C. J. Anthonydoss works stand out. His pictures breathe out a brooding dynamism: the stylised statuesque quality of his figures, cleverness of arrangement, austere economy of details and subtlety of colours contribute not a little to this effect. The surrealist influence is there but the individuality of the artist overshadows this. His "Fisher Woman" is one among his best.

Sri Perumal is another artist whose works stand out. He is a person who evidently has allowed 'painting to come to him'. His pictures, with

their unsophisticated spontaneity, verge on the primitive and possess, precisely because of this, the directness and force and uninhabited expressiveness of thought and emotion. His portrait studies are specially noteworthy.

Sri P. K. Prabhakar has put up two excellent works. His picture 'Vinobha Bhawe' with its well knit arrangement, decorative motif and stylised representationalism help to bring out the crusading fervour of the Acharya. Sri M. Reddappa Naidu has exhibited some good works that are technically competent. But (to one who has seen his efforts last year) he seems to be resting on his laurels won a year back. One looks in vain for a development of thought and expression. Sri R. S. Rasu's works are interesting. 'Thele Malish' and 'Bhatakhan' are specially noteworthy. 'A young girl with mirror' is a very effective and forceful picture by Sri Samarendranath Roy. Sri Akkithath Narayanan's still life studies are good and full of promise. Sri P. V. Rama Rao has put up some intriguing works which are competent and thought-provoking. Sri N. P. Kalyanasundaram's 'Still Life' is remarkable for its pleasing colours and technique. The abstract "Compositions" of Sri R. Varadha Rajan are interesting. Sri V. Sanjeeva Rao has exhibited a few sketches that are excellent. The works of Messrs. Kerala Varma, Mammen and T. Krishna Rao deserve notice.

Among the works of established artists Sri K. Srinivasulu's "Sun-flowers" executed in his characteristic style is outstanding. Sri S. Dhanapal, perhaps one of the best sculptors of our nation, has put up three pieces, of which "Avvayar" deserves special mention. This is remarkable for its compactness of composition and highly effective expressiveness. The angularity of form, though it is a variation from the flowing lines for which Sri Dhanapal's works are famous, helps to give an air of raw poignancy to the subject. Speaking of sculptures, the

works of Sri Phul Chand Pyne deserve special notice.

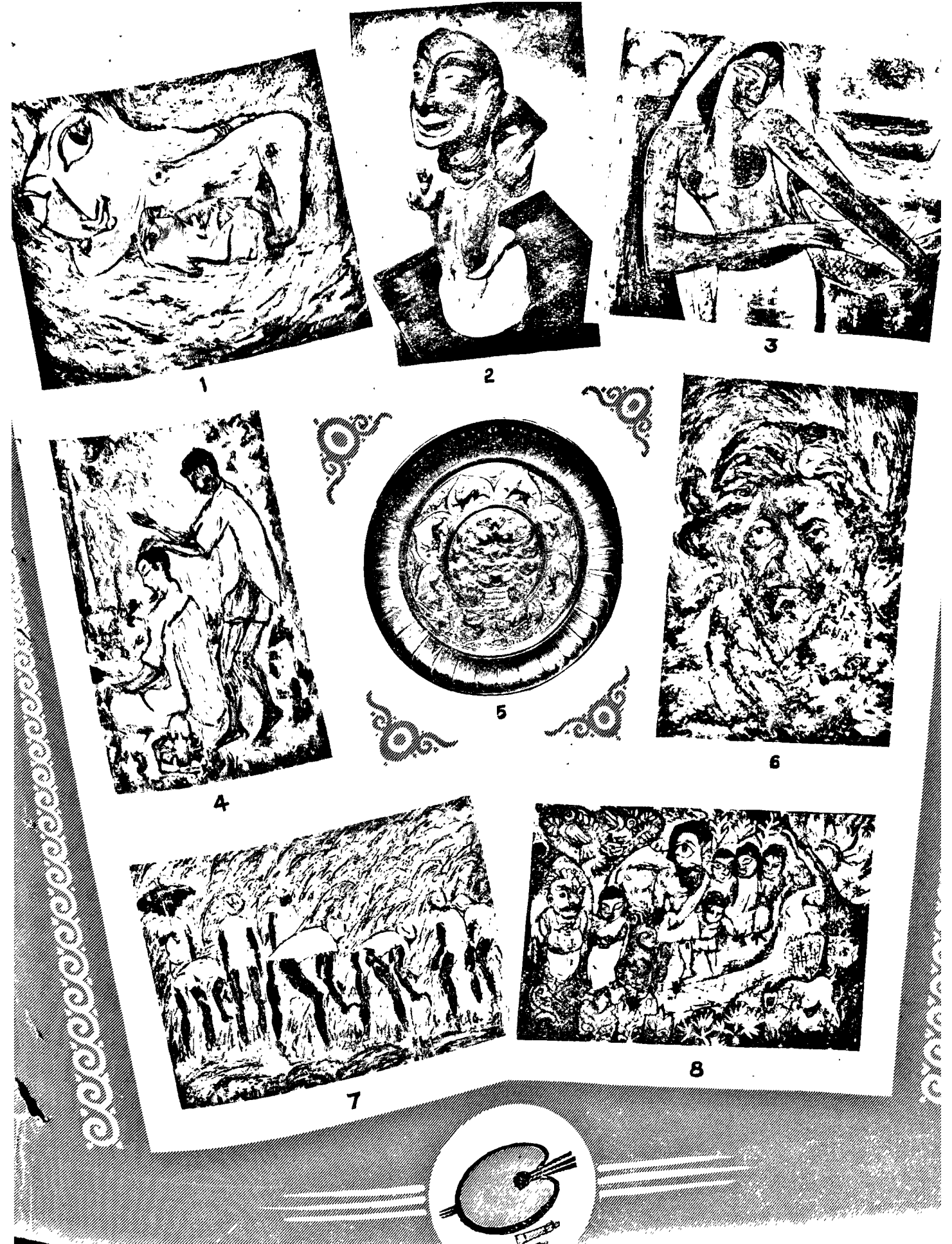
In the commercial art section there are some interesting works on display with Textile Design by Moulana Jon setting the standard for excellence.

A novel feature of this year's exhibition is the inclusion of craft works executed by the instructors and students of the crafts section of the School of Arts and Crafts. This branch of fine arts is ably represented by Sri Kuppuswamy with the execution of the centre-table-piece work, in brass, designed by Sri K. C. S. Paniker. Messrs. Vajravelu and Gangadharachari, the former with a pendant and the latter with a necklace reveal themselves as master goldsmiths who have the artistic skill to reorientate tradition to suit the demands of taste and fashion of the current times.

While the Progressive Painters Association have to be congratulated for putting up such a good show it has at the same time to be pointed out that they have allowed definitely non-progressive and decadent specimens of art to creep into the exhibition. There are at least a dozen pictures which will hardly earn a place in any exhibition, on merit.

Some of the exhibits in the Progressive Painters Art Exhibition Conducted at the School of Arts and Crafts are reproduced in the opposite page. They are:—

1. Mother and Child by Sri K. C. S. Panicker.
2. Avvaiyar (Sculpture piece) by Sri S. Dhanapal.
3. Fisher woman by Sri C. J. Anthonydoss.
4. Thele Malish by Sri R. S. Rasu.
5. Centre-table-piece work in brass by Sri Kuppuswamy.
6. Portrait of man by Sri P. Perumal.
7. Harvest by Sri M. Reddappa Naidu.
8. Composition by Sri R. Varadha Rajan.



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