

1029

INDEPENDENCE NUMBER

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Sri Subash K. Choudhuri, Sri Aral Behari Sharma, Sri K.V. Babu,
Sri M. G. Bokare and Broadcast Talks by Sri V. J. Nedungadi
and Sri E. P. Nanoo.

The Industrialist

Vol. 11—9

AUGUST 1950

8 As.



The first United States International Trade Fair will be held August 7 to 20, 1950, at Chicago, a city of nearly 4 million population, in the midwestern State of Illinois. More than a score of major railroads, 8 transcontinental airlines, and many highways extending all parts of the country make the city a central market and distributing point. Chicago also handles Great Lakes shipping and is a port of entry into the United States.

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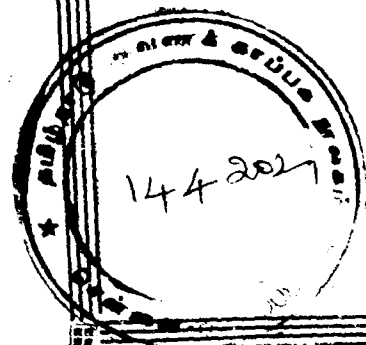
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INDEPENDENCE DAY

No other day is held in such greater festivity and religious fervour in the Indian Union, than the 15th August. It is a day of deliverance for the Indian masses from foreign rule and domination extending over a century and a half. Our grateful remembrances always go to the Father of the Nation in awe and reverence who, without any bloodshed, effected this revolution. India's economy had been shattered and her leaders have been fighting hard these three years to set matters right. Firstly, India has been unified by abolition of independent 'Indian States' and, secondly, she is no longer in the British Commonwealth, though is a Member of Commonwealth of Nations. She is now a most respected Member of U. N. O. Problems due to Partition—separating from India a rich slice of fertile land from the Union—particularly the refugee problems resultant from it and various Intra-Dominion differences such as Kashmir, food problem of an acute character with rigorous controls, frequent changes in import and export policies caused by a whimsical international trade, and devaluation of £ and the rupee which has turned the corner, and labour troubles in the Factories retarding production are only a few of the big hurdles which our Ministers at the Centre have had to cross. Even so, legislations both at the Centre and in the States of a far-reaching character have been in the anvil, each Ministry competing with another to achieve what the country has been clamouring for i. e. full employment and a higher standard of living for the masses. Thus on this day the 15th Aug. 1950, the whole country prays for economic, social and industrial freedom, which alone could take us on to greater glory in the Comity of Nations.

DR. RAJENDRA PRASAD



First President of the Indian Republic.

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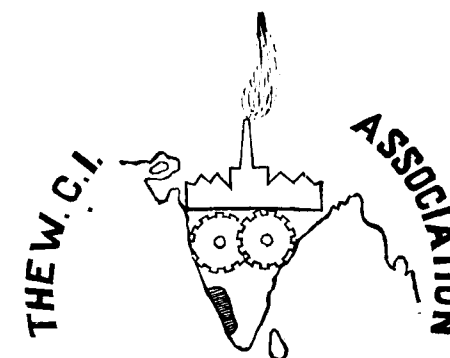
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From an Industrialist's Diary

1950

Aug. 15: New Indian Coins.
Aug. 18: Import Advisory Council meets
at New Delhi.
Aug. 21: Planning Advisory Board
meets.
Aug. 27: Election of President of Indian
National Congress.
Aug. 31: Latest date for application to
Deputy Iron and Steel Control-
ler, Madras, for import of

shaftings from soft currency
areas and Japan.

Sept. 6: World Monetary Fund in Paris
to decide ‘Pakistan Rupee’.

Sept. 12 — 13: Indian National Congress
meets at Nasik.

Oct. 1: Issue of Inland letter cards of
1½ annas.

Editor's Jottings

KOREAN WAR

It looks as if the whole of South Korea would soon be over-run by North Korea, leaving the U. S. A. ‘to plough a lonely furrow’ though aided by a few other nations of the U. N. O. Also M. Molotov's presence at Peking is portentous, as Formosa would sure be ‘the next venue of warfare’. The U. N. O. Security Council with M. Joseph Malik as President have by a majority resolved, what was obvious, that there was aggression on the part of North Korea. But what is all this for?—except to show that there are two powerful blocs opposing each other for asserting each other's superiority and ideology. Under the circumstances, the high-ranking debate in the Indian Parliament on the Korean

question and appealing speeches of the Prime Minister of India and of the Hon. C. Rajagopalachari explaining the India's share in this ugly fight, seem superfluous. India as an active member of the U. N. O. should take up an attitude consistent with her dignity, and her recognition of China's People's Govt. has doubtless been conceived in the right spirit. If the Western Democracies would not agree to this straight proposal, and if Russia too could not ask the North Korea to stop the aggression, then any amount of academic discussion on either side would not help matters. There should be a feeling of ‘let go’ and ‘let live’ on both sides, which alone could stop this aggression and avoid further wrangles. May we hope and pray that ultimately perennial peace would come to this world, tired of wars, with under-nourishment and unemployment facing 80% of this God's globe?

Progress of the War

— 47th day of War.

S. E. Sector : Chinju has been retaken by the U. S. A. Army, which is now on offensive. Chinju—Pusan Road leading to the sea is being reinforced by U. N. O. Forces.

Central Sector : Kunwi, 25 miles North of Taegu, is now in hands of N. Korea.

Air and Sea activities continue as before.

The Hon. C. D. Deshmukh on "India's Economic Policy".

In caricaturing the India's economic position as 'difficult, but not desperate', and in a further elucidation that Government will need emergency powers to enable them to cope with the situation — the Finance Minister has done only a bare justice to the India's present financial plight. Also in his maiden speech before the Parliament, Mr. Deshmukh defined the major objectives of Govt's economic policy in the following terms:— (1) No further inflation following a sound fiscal and monetary policy (2) no relaxation in pursuit of economy (3) to minimise the strain on the country's economy attributable to her political and economic condition (4) to push plans for attaining self-sufficiency in food, cotton, and jute (5) to maximise industrial production (6) to alleviate rural under-employment (7) to check the increases in prices and (8) to utilise the country's limited resources to the best advantage. In short, this is only reiterating what is obvious, that unless, firstly, we cut our coat according to cloth and, secondly, we increase our national income both by increased agricultural and by industrial production, as a war-measure, the present economic trouble is bound to continue. While the British Govt. acted merely as a tax-collecting agency, without any definite planning schemes before them, the Republican Govt. should adopt a bold plan of drastic retrenchment of expenses, consistent with the Budget, and also take up capital schemes in a planned manner suited to India's rural economy. All this should be done in the quickest time possible, as the country is tired of assurances without tangible results.

RETURNING CONFIDENCE

There is no doubt, however, that there is a distinct improvement of returning confidence, as recent responses to the Central and State public loans have shown. Also, there is a distinct sign that as in the case of Manimuthar Project in Tinnelvelly District the local agriculturists helped by Banks came forward to subscribe liberally to public loans concerning their own needs. But if as Mr. Deshmukh feels that grave perils may turn out sooner or later in the economic field — what they are, the Finance Minister has not indicated — such perils should be met by bold financial statesmanship. If prices of goods are an index to the present economic position, the situation is not happy. While whole-sale prices have risen only by 3.7% during Dec. 1949–June 1950, retail prices in the villages have gone up by more than 50% in some cases, not to speak of 'black-market' prices which have become a normal feature in all essential goods. We therefore look to the Planning Commission to undertake all restorative work in the economic field, from increased production upto marketing, renovating old industries upto their installed capacity and starting new industries. However, India's favourable trade balance of 6 crores since devaluation is a happy sign of India's exporting capacity. But it is also necessary that National Savings from rural folk should be canalised by all 'cajoling measures, for starting Industries on a regional basis rather than through shares in concerns, of which the small investor in the villages know very precious little.

INDIA'S FOREIGN POLICY

India's foreign policy has been a subject of high-ranking debate in the Union Parliament. That India would not join any power bloc had been fully demonstrated by her wise decision not only in recognising Communist China on one side, but also on the other in joining the rest of the U.N.O. to protest against North Korean Aggression. India holds the view that the Korean War should be localised and not be taken on a World level. It is an independent attitude of a sovereign power, wedded to non-violent methods, but whether India could change the militant attitude of the opposing wings seems a distant cry. The wrangle in the Security Council with the Russian Representative as Chairman, shows that it is a conflict between two powerful

vested interests. Whether under such circumstances, Gandhiji's dogma is not misplaced — is a puzzle to the common man in India.

FOOD POSITION IN INDIA

No subject is more engrossing and gives greater worries to the citizen of the Agricultural India to-day, than the 'food question'. It is not that we have not enough to eat, nor even sufficient to meet our neighbour's needs, but the way the problem is tackled by our administrators that makes every one shrink at 'what is said and done'. Look at Mr. K. M. Munshi after his visit to Madras and Bihar proclaiming that 'there is enough of grain to prevent starvation, but that self-sufficiency is unreal in practice'. Still he is for a target of self-sufficiency by Dec. 31, 1951 and for continuing controls not to inflate prices, as if high prices were not already there, and people were not resorting to black-market high rates! Also Mr. Munshi has started feeling only just now, that there are no correct statistics in India, as surplus areas give low figures while deficit ones maximise their deficits. The Food Minister asks: — 'how could the Govt. decontrol when there was no self-sufficiency except pure theoretical considerations (the italicised is ours)? But then the Govt. are turning to be theoretical rather than practical in all their policies. Otherwise, how could one justify inefficient controls of distribution of essentials, — leave alone prices — when there are not sufficient wagons for transport, when there are no statistics according to the Food Minister himself, and above all, when 'controls' are inefficiently administered even according to Sardar Patel?

EXEMPTION UNDER 16 OF THE FACTORIES ACT SIZES OF WORK-ROOMS

The Madras Govt. have been generous in granting exemptions for three years to Handloom Factories in the State in the matter of conforming to sizes of work rooms. The Act had fixed a minimum size of 350 cubic feet in case of factories as on 1-4-1949 when the Act came into effect, and a minimum of 500 cubic feet for those factories that came later. But since practically all handloom factories have come under the Factories Act for the first time on the 1st April 1949, obviously they should all be brought by notification under the first category of a minimum

of 350 cubic feet. Also in the matter of height of the work-room, we hear that the Department insists on a minimum of 14 feet, but the language of the Act is clear that it does not insist on a minimum height except for calculation of size-taking heights of over 14' as 14' only. We reproduce below the relevant portions of Act 16:—

SECTION 16 (2) OF THE FACTORIES ACT, 1948

"There shall be in every work-room of a factory in existence on the date of the commencement of this Act at least three hundred and fifty cubic feet and of a factory built after the commencement of this Act at least five hundred cubic feet of space for every worker employed therein, and for the purpose of this sub-section no account shall be taken of any space which is more than fourteen feet above the level of the floor of the room."

Protection to Plywood and Tea Chests

— EXTENDED FOR THREE YEARS
FROM 1st APRIL 1950

The Govt. of India have accepted the recommendation of the Tariff Board extending the protection to Plywood Industry for another three years with 30% *ad valorem*. The Board has made other specific recommendations as follows, which the Govt. have accepted:—1) Research Laboratories in Calcutta, Assam, and South India to be maintained by voluntary contributions. 2) Exports of Casein to be prohibited and imports to be licensed for manufacturers and 3) Species of timber for the industry to be earmarked. But all along, the Industry had been pressing for the gradual lessening of imports of tea-chests, and for making full use of home production, but the Govt. have not defined so far any formula for effecting a gradual reduction in imports. Also since Casein prices are soaring, the Govt. should abolish the import duty on casein, as in the case of other raw products necessary for industries. The States should also be asked to develop the special timbers necessary for this Industry. More important is that tea gardens should cooperate actively with the Indian Manufacturers to utilise fully the home products. Thus the Industry needs a comprehensive State Aid without which the protection would be meaningless.

From British Information Services

£ 60 MILLION TIN-PLATE PROJECT IN WALES

A 60 million £ reconstruction project to expand the tin-plate production of Wales has been announced. It is said that this is the largest five-stand tin plate Mill in the World with a capacity of 5 lakhs tons yearly. It is hoped that this new Factory would meet increasing Overseas demand.

NEW FACSIMILE RECORDER

Britain's first direct recording facsimile tele-communication apparatus was demonstrated in London recently. The receiver uses electro-sensitive paper supplied in rolls of 100 feet. The machine which weighs 50 lbs. is self-contained and requires only A. C. mains supplying connection to a telephone line capable of receiving pictures. The picture size is 11 inches wide, the same as that of a photo telegraphic receiver using an 88 mm. drum.

NEW STONE - CRUSHING MACHINE

A British Firm has developed a new stone-crushing machine known as "Rocksizer" for meeting the requirements of widely dispersed construction and quarrying projects. The machine is a self-contained feeding, crushing and conveying plant, with a capacity of 25 to 30 tons an hour. The machine is mounted on a chassis fitted with six wheels, driven by a Diesel Engine developing 70 brake horse-power. The feeder of the machine has a hopper receiving the stone, and the stone passes over a screen removing pieces less than 2½

inches. The smaller pieces fall on to a conveyor, by passing the crusher and saving wear of the crusher jaws.

PORTABLE STORAGE UNIT

The same Firm has also placed on the market a portable storage unit for quarry and gravel pit use. Named the 'Porta Bin', the unit combines portability with advantages associated with fixed plants. The material is 'dredged' from the feed boot by an elevator and is discharged down a chute into a rotary screen. The first part of the screen removes the oversize material, the dust is removed through a dust jacket, and the remaining material moves on to the second part of the screen, where it is screened into three sizes passing into separate bins.

LATEST ATOMIC PRODUCT ON SHOW

At a London Exhibition of the International Congress of Radiology, a very important Atomic Product 'C-14' has been exhibited—an isotope of 'carbon' with very wide application to scientific research. The C-14 can be used in biology, to study the processes by which food is turned into living matter by animals and living beings; in medicine, to study behaviour of vitamins, hormones, drugs and cancer; in agriculture, to investigate how plants and potatoes turn carbon dioxide from air into starch and sugar; also in combating plant diseases such as tobacco virus; and in industry to study distribution of carbon in steel, and production of synthetic petrol or in analysis of complicated chemical mixtures and behaviour of petrol in engines. But then even after long treatment, only 2 in every 2 million nitrogen atoms are converted to 'C-14.'

OUR SPECIAL ARTICLES

BROADCAST TALK

ON

TIMBER INDUSTRY IN MALABAR

BY

MR. V. J. NEDUNGADI, B. SC.

(By Courtesy — A. I. R. KOZHIKODE.)

DAME Nature, has been lavish in bestowing her bounties on man, and timber is by no means the least precious of her gifts. The association of man with forests and timber dates back to his very origin. Primitive man must have had his abode in woodlands which afforded him his first shelter and clothing. The timber and leaves of trees furnished the materials for his hut and the bark for his clothing. In course of time he learned to utilise the wood so readily available to him for making household utensils, agricultural implements, etc.

2. With progress of civilisation new uses of timber came to be discovered until today wood has become one of the indispensable articles of domestic utility. The essential role it plays in man's life will be evident from a casual glance at the interior of any home whether it be of the rich or the poor. The doors, the windows, the stairs, the ceiling, the super-structure, and the furniture are mostly of timber. The office, the drawing-room, the dining-room, the kitchen, the bath-room—in fact, any part of a house—bears testimony to the varied uses to which this wonderful gift of Nature can be put. Timber finds its use not only for construction of homes and furniture but also for a variety of other purposes as will be shown later.

3. Though timber is an article of such universal use, its occurrence in the different parts of the world is limited by suitable conditions of latitude, climate, soil etc. Malabar happens to be one of the spots richly endowed with this valuable material, not only for

meeting the everyday needs of its population but also as a means of augmenting national wealth by export.

4. Wood is composed of cells closely knit, packed, and compressed with an amount of moisture-content therein. When the moisture-content is removed, these cells shrink and get closer together and the wood gets more hardened. Everyone knows that all timbers are not the same to look at. The patterns in which the cells are arranged, the thicknesses of the cell-walls, and the size of the cells are different in different species. This is why some woods are hard and others soft; some are heavy while others are light. In tropical India and particularly in Malabar, where favourable conditions of climate, rainfall, and soil have produced a luxuriant growth of vegetation, a rich variety of timber species with a wide range of hardness, colour, grain etc., is available. There is, therefore, no dearth in the choice of species suited for different purposes. To select the best wood for a definite purpose, however, calls for an exact knowledge of the qualities required and correct information about woods possessing such qualities. This knowledge can be acquired only as a result of patient study and research. The qualities concerned may refer to strength, seasoning, durability, workability on machines or a variety of other characteristics. It was for the purpose of determining by careful study and investigation, the different characteristics and peculiarities of the numerous timber-species available in India from the stand point of their commercial value that the Utilisation Branch of the Forest Research Institute at Dehra Dun was brought into

being. The results of the valuable investigations that are being conducted there are now available to us.

5. There are few raw materials which possess such extensive powers of adaptability and are so largely used for industrial purposes as wood. It is a bad conductor of heat, electricity and sound. It has also the natural beauty of its grains. Pound for pound wood is the strongest structural material known except for a few modern alloys. These qualities of wood make it so largely in demand for industrial purposes and enable it to hold its own against its substitutes.

6. With timber available in such abundance and variety, wood working has been one of the principal occupations of the artisan class in Malabar since olden days. Though no organised large scale wood-industry, producing articles on a mass scale, existed until about the beginning of this century, wood-craft on a cottage-industry basis was common throughout Malabar. In building construction, our carpenters attained a high degree of proficiency. Boat-building was another of the old-time occupations of Malabar, which received considerable impetus during the time of the Portuguese occupation. Beypore has been a boat-building centre from very early days, as it is even today. It is just part of the routine work of the carpenters of Malabar to make articles of furniture and utensils of household purposes, agricultural implements like the plough and the voke, handlooms for weaving cloth, oil-exPELLERS and sundry articles like axe-helves and tool handles, sandals, water-buckets and pulleys for drawing water—all of wood. Some of the more skilful among them also used to make musical instruments out of wood, even though they had no scientific knowledge of sound vibrations, resonating columns, and musical notes as we have today. The crude 'Pulluvār's' fiddle, the drum, 'maddalam,' 'edakka' and other sound-instruments which are, even to-day used in temples are earlier productions. The more refined 'violin', 'veena', 'thumbaru', musical pipe, and the flute are latter additions.

7. With the modern advance in industrial development and mechanisation of manufacturing processes, articles of wood began to be made in larger numbers on mass-production basis, thereby reducing considerably manual effort and time involved. The field of manufacture became enlarged. Thus Malabar timbers are today catering to a variety of demands, such as for boat and ship-building, manufacture of bobbins, boot-lasts, shoe-heels, brushes, carts and carriages, construction of bridges, cooperage, electric-transmission poles, engraving and printing-blocks, floor-blocks, jute-mill rollers, match-splints, and boxes; for making mathematical instruments, motor lorry and bus bodies, musical instruments, packing cases, pencils and pen-holders, picker arms used in Indian Textile Mills, railway-carriages and sleepers, toys, umbrella-handles and walking-sticks — and these by no means exhaust the list.

8. Though in recent years, progress of science has developed several substitutes for timber like iron and steel, fresh avenues for the use of timber too are opening up from time to time. Researches and improvements in respect of the utilisation of wood have chiefly been directed towards economising the use of timber, overcoming the problem of seasoning large blocks of wood, improving the strength of timber across the grain, preventing expansion and contraction due to the absorption and desorption of moisture, producing very large sheets comparable with metal sheets, and generally improving the strength properties. These improvements have been effected to a lesser or greater degree in the processes of manufacture of plywood, laminated wood, and compressed wood. Plywood is made by peeling or slicing logs of timber into thin veneers and gluing the veneers with the grains of adjacent plies at right angles, the resultant sheets being stronger than solid timber for the same thickness by virtue of the grains of adjacent plies being at right angles. The glues used for commercial plywood have lactic or vegetable casein as

their base, but for high quality plywood such as those for Aircraft and Marine constructions synthetic-resin adhesives completely impervious to water and fungus are used. The processes of manufacturing plywood have so much advanced that we have now special kinds of plywood for particular purposes. Even boats are made of plywood.

9. Plywood manufacture was first started in Malabar in the year 1937. The demands of war gave an impetus for the starting of several other plywood factories and we have now in Malabar about a dozen factories manufacturing plywood. Several species of softwood timbers which were, until then, considered to be of no value began to be used for the manufacture of plywood. In order to make plywood manufactured out of softwood species immune from insect attacks, the veneers are treated chemically and a preservative chemical also is added in the bond.

10. Hard-boards or press-boards are other products of timber now manufactured in Malabar. In the manufacture of these a further economy of timber is effected. These boards are prepared by mixing saw-dust and wood-shavings with suitable synthetic resin adhesive, and subjecting the mass to high pressure under temperature.

11. Wood-pulp for manufacture of paper and cellulose are some other products of which timber is the base. Malabar has still to advance in these industries. With the large forest wealth of Malabar, it has ample scope for developing other industries like the manufacture of Masonite—using timber as the raw material. Most people consider wood as merely a material for burning as fuel or for being built into houses and to most timber merchants and even foresters trees are still only "building timber or furniture wood." The vast advance that has been made in recent years in the utilisation of timber has made it clear that wood is a far more valuable raw product than most of the human race

is aware of as one of the recent writers on the subject puts it. "In the age-old competition between cotton and wood, the latter is steadily winning. The natural wood-cellulose fibre has largely displaced cotton in the manufacture of paper. Again, the wood-cellulose molecule used in the manufacture of Rayon, has "in turn captured a vast province of cotton's textile empire." As for further possibilities in the conversion of wood we have only to look at the family of plastics like "cellophane or photographic films," wood-alloys, tree-chemicals" etc. These possibilities are referred to here only to show what can be done if we try to take advantage of the up-to-date developments on the subject.

12. In olden times when supply of timber very much exceeded the demand there was no question of economy or control in the free use of timber. Now the condition is reversed and owing to the operation of various factors, the world is faced with a timber-famine, calling for increased production and economic utilisation of this valuable material. It is common knowledge that during World War II, colossal quantities of timber were used up for war purposes. At that time when the defence of the country was the only consideration and there was no time to pause or think of anything else, trees were felled indiscriminately from wherever they were available and most handy. Malabar, perhaps, has suffered in this respect more than any other part of India and she is already feeling the pinch of scarcity of this essential commodity. In this new context of things it is of the utmost importance for Malabar to utilise her timber-resources in such a way that there is no wastage. This can be done only by so co-ordinating the various timber-industries, that what is wasted by one feeds another till the last chip of wood, or ounce of dust, or pulp, or whatever it may be, is utilised for something else that we need.

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PLANNING AND PLANNING — III

By

PROF. RAMACHANDRA

Co-ordination of Agriculture and Industries

In the various schemes put forward by several planners so far—such as Bombay Millionaires' People's, Aggraval's, Birla's, and A.I.C.'s—no attempt had been seriously made to correlate Agriculture to Industries in general and to Agro-Industries in particular. While different plans laid a special emphasis on capital industries and need for funds in crores for developing them, the development of Agro-Industries in villages and smaller towns costing very little capital and implements have found an unimportant place. In fact, all these schemes omitted any reference to the economic aspects and the important place in India's economy, which these rural industries are playing and have to play in future. It should be recognised, once for all, that Agricultural India should and could look forward to the development of Agro-Industries, only as the second urgent scheme in the 'priority list' in India's planning, next only to Agriculture. Unless the Planning Commission would recognise the importance of development of agriculture, any capital schemes put forward by them would not meet with necessary success. Not only is capital shy in the country for such schemes, but the villager who has money is interested in his own needs and smaller schemes.

**ADVANTAGES OF
ARGO - INDUSTRIES**
The advantages of developing, for example, handloom, oil-crushing, fruit

gardening, leather products, sugar manufacture by country methods, etc., are:— firstly, that very little capital is involved; secondly, that they would act as a subsidiary occupation to the rural cultivators in villages with over-increasing population, giving them full employment throughout the year, thirdly, that they would remove unemployment and fourthly, that they would increase the earning capacity and production of essential commodities. It is such rural development, as Gandhiji preached, based, however, on modern technique of improved labour-saving machinery and electric power, that could save India from her present economic plight. Switzerland and Japan are notable examples where Science is fully utilised for small industries located in rural parts, and where, raw material available is fully utilised for developing industries of cottage type.

INDIA 'IN PARTING OF WAYS'

But India is in a pitiable plight of 'the parting of ways,' after the Britisher left and cannot now easily decide which way to choose and to plan for her future. While the Union Govt. and the State Govts. are going out for public loans for capital schemes only such as irrigational and Electric projects and inviting foreign capital for such schemes, the money that has been distributed to the villagers and townsmen owing to the present socialistic policy, have yet to find suitable investments. It is yet to be

recognised by both the Govt. and the planners, that if capital should be tempted for investments in the present context, it is only smaller industries planned on zonal and rural basis that could attract them. If 'capital' is shy, and capital formation is slow, and if shares in the market are not attractive, it is partly because the days of capitalists are fast dying and partly because the State's Taxation Policy combined with frequent reiteration of policy of *nationalisation* even of industries in private sector, have dissuaded active investments. Banks in the country are still of capitalistic type, on whom smaller industries cannot hope for any aid. Under the circumstances, it is the duty of the Govt. helped by the Planning Commission to formulate a comprehensive scheme of rural industrial development utilising all financial resources, available raw material, and human energy and power, spread through 5 million villages in the Union.

HOW TO IMPROVE COTTAGE INDUSTRIES

Recently, the Madras Govt. have constituted six regional Advisory Boards to develop match, palmyra fibre and leaf products, leather goods manufacture, woolen cumby and blanket, pile carpets, and hand-made cotton lace. But the list of cottage industries in the Union cannot be complete, unless a complete survey is quickly undertaken. But the only way of organising rural industries is through multi-purpose co-operatives, entrusted with full authority to lend, to supply, and to market. Organisation should be undertaken village-war and the aim should be to improve the technique, methods of production, of tools,

and of equipment and marketing. A special department under the Ministry of Industries in each State should at once be created to undertake this work with the help of the Co-operative Department.

TECHNICIANS FOR COTTAGE INDUSTRIES

But if rural industries should survive, develop, we need more and more technical personnel who had special training in arts. It seems, therefore, necessary to start at once miniature technical institutes, in groups of villages, where at least 'first aid' could be given to prospective technicians and skilled labour. The starting of such Schools should be done quickly, as a precedent to the development of rural industries. Such Schools could easily be manned by our Engineering Graduates. While such technicians and skilled labour could be employed in medium-sized factories to be started throughout the country, their primary place will be in the villages where rural industries should be developed. More and more technicians with basic training in Engineering should be the essential feature in any planning.

RURAL BANKS

In any scheme of planning, however, rural credit will be the main lever for rural industrial development. If 80% of the country's national income is distributed in the villages themselves, it is difficult to understand the difficulties in organizing rural credit. Ever since the Banking Enquiry Committee Report of 1930, the Govt. have not shown any inclination to develop rural banking. The recent report of the Rural

(Continued on page 11 below)

Handicaps to Industrial Development in India

(THIRD SERIES)

[This is the third set of three articles contributed to "The Industrialist" from eminent Industrialists and Businessmen on 'Handicaps to Industrial Development in India'. The first set published in the June issue of 'The Industrialist' dealt with Capital Formation and the second set with Rationalisation of Industries and this set deals with Labour Problems. Ed. The Ind.]

TRADE UNIONISM IN INDIA

BY

RICHARD DEVERALL

[The article by Mr. R. Deverall who has been in India for the past nine months as the representative of the American Federation of Labour and the Free Trade Union Committee, presents certain interesting problems now facing India and particularly labour]

The year 1950 may in time prove to be one of the most fateful of the Twentieth Century. For the end of 1950 the die may well be cast determining the shape of the world for the remainder of the century. And it is not in Europe that world-shaking events are just now taking place but in China and India—two countries which we have hitherto regarded as very far off and therefore globally unimportant.

China and India are the two geo-politically pivotal countries of Asia, particularly since

the collapse of the Japanese empire. As they go so may well go Asia, and as Asia goes so may go the world. For in China with its 400,000,000 and India with its 340,000,000 human beings we have one-third of the human race.

Both India and China are enormously rich in raw materials and natural resources. And not only is their wealth relatively untouched but they have yet to discover the extent of their coal and iron and manganese and other deposits essential for industrial growth.

To-day India and China are but lightly industrialised. But both countries stand astride the trade lanes of the world. They have many excellent harbours. Both India

(Continued from page 10)

Banking Enquiry Committee presided by Sir Purushothamdas Thakurdas, while holding the view that rural savings should be canalised, have not made any practical suggestions for developing rural credit for rural development. It seems that while existing banks should be encouraged to open branches in villages and allowed to advance loans against securities, the rural banking system should, as far as possible, be independent of scheduled Banks registered under Indian Companies Act. Rural

Banks should be of a pattern of a co-operative, where resources of each village should be pooled for common good, combined with State Aid. If Co-operative Banking has not succeeded so far, it is because local resources have not been fully tapped. If an agriculturist could pay tax in cash and meet all his commitments also in cash, and if from reports he has now a saving which has not come out, is it not the duty of the Govt. to tempt that surplus into useful channels? This seems the only way of utilising the capital available on the country side.

and China, with their teeming populations, present the potentialities for an industrialisation greater than that of any other country in the world.

In a certain sense, both India and China are backward countries, but one should never forget that their ancient and virile cultures were well developed when Europeans were still running around in loin-cloths and living in caves. India and China, despite long periods of Western influence have remained with a frightful legacy, partly due to colonial domination and partly due to other reasons.

Dreadful illiteracy has kept the workers and peasants of China and India in the valley of ignorance. The Indian and Chinese peoples are highly intelligent but the lack of money has made universal public education thus far impossible. Second to the appalling illiteracy as an important problem is the state of public health. India and China have for centuries been visited by famine, pestilence and disease, and the common man has seen his children wither and die. Some people say that the two countries have too many people. My own research would indicate that the problem is not too many people but improper and unscientific use of the soil and natural resources.

LIFTING OF TREBLE LOAD

There are some who say that China and India stand in need only of more iron and steel plants, more rail-roads and more industrial know-how. These are all needed, but much more fundamentally the common man of Asia seeks to remove the load of illiteracy, ill-health and insufficient food. He considers the lifting of this treble load as the pre-condition for the development of a healthy industrialisation that will re-make the face of Asia.

The experience of American workers and the workers of other free nations of the world clearly indicates that trade union organisation is one of the surest guarantees of the orderly development of a healthy

society. American big business is sometimes inclined to pat itself on the back and advertise: "Industrial know-how did the job!" It is true that know-how has played an important part in the raising of the standard of living of the American worker, but without trade union organisation it is doubtful that American industry would have progressed as rapidly as it did, for organised labour, by raising standards, in turn forced the increase of mass purchasing power absolutely necessary for the growth of industry.

In Asia, in the same way, the organisation of the workers by workers and for workers will play the same vital role as has the free labour movement in North America. During the past few decades the history of trade union organisation in both India and China has been heavily political, with emphasis not on the economic needs and aspirations of the workers but rather on the use of such unions as existed in the struggle to secure national independence. Because of the widespread illiteracy, the typical trade union leader in Asia has been not a worker but a polished doctor, lawyer or university-educated newspaper-man. Very few wage-earners are to-day leaders of organised workers.

In both China and India the industrial workers constitute at best five per cent of the population. The typical worker is a peasant living in a small village and generally working land owned by someone else. During recent decades the workers and peasants of both countries have been stirred. Unfortunately, a large part of their ideas of trade unionism have come from Marx Engels, Lenin and that latter-day apostle, Stalin.

As we know well in the United States, the Marx-Engels-Lenin-Stalin conception of trade unionism calls for organisation of the workers by the totalitarian State in order to carry out the orders of the supreme political authority. It is only recently that Asian workers have begun to realise that trade unions exist to serve the interests of the workers, not as masters of a totalitarian slave State.

In China the struggle to build *bona fide* unions has come to a decisive end for the time being with the victory of Mao. General Chu Teh of the Chinese Red Army laid down the policy for the Chinese trade union movement in his key note address to the assembled "trade unionists". He told the Federation that "labour must subordinate its regional and short-term interests to longer range interests". He directed the Chinese Communist Party to educate workers along those lines. The Chinese Communists have announced that within the year everyone in China will belong to a "union". No doubt they are determined to achieve this goal even if they have to liquidate half the membership to get unity!

India remains outside the 'Iron Curtain'. She has a labour movement which is now going through a rapid revolution. Following the country's independence, the old Communist-dominated All-India Trade Union Congress has been brushed aside and virtually replaced by the Hind Mazdoor Sabha and the Indian National Trade Union Congress. These are rival organisations.

The trade union movement of India is poorly financed. It has little actual rank and file leadership. It suffers from partial political domination by various political parties. But the movement is in flux. Workers are rising to leadership in some of the unions. The future of trade unionism among the industrial workers of India is apparently bright.

ORGANISATION OF PEASANTS

The depressed and illiterate farm workers of India—particularly the landless workers,

called *kisans*—number an estimated 40,000,000. Here the field for organisation is tremendous. Just as agricultural workers have organised unions in the United States and parts of Europe, so there is a place for organisation of the farm workers in India. The organisation of the landless peasants and their education and economic protection may well provide a rising movement that will insure the democracy and integrity of India.

The soul of India is the peasant. If the peasant is afforded the opportunity to help himself through union organisation, co-operatives and credit unions, the trade union movement of India may prove in time to be the decisive element that will frustrate any possible Communist domination of India such as has now put China in the grip of Cominform stooges.

I am honoured and privileged to represent the American Federation of Labour at this moment in India, a great and noble country. Although the work of one man among the 340,000,000 inhabitants of India may seem terribly insignificant, the fact remains that the basic principles of trade unionism as expounded by the great leaders of American labour closely parallel the labour teachings of Mahatma Gandhi, who in his early days was the really great labour leader of India. The democratic trade union know-how which the A. F. of L. is disseminating in India is being eagerly studied by both peasant and trade union leaders. And believing as we do that ideas have legs, I am sure that within a few years, the concepts and practices that made American labour strong will be developed in India.

Food-Position in Madras

Most of the districts are facing a grim situation—due to lack of supplies, failure of procurement, and shortage of wagons. 6 oz. rice ration has been announced till February 1951.

How to Increase Output?

Its Psychology and Factor in Industry

BY

Subash Rai Choudhuri, F. L. J.

Value of psychology of work in industries plays an important role. It constitutes a vital factor. Its bearings are manifold and nation-wide. Its progress exerts influence upon development of social welfare. Economic soundness and prosperity are led with this aspect. Its important side is not an isolated nor a divorced factor. It is inter-related and inter-woven.

Sir George Schuster, Britain's distinguished economist, has carried out extensive research with regard to the human factor in industry. His advisory reports although not exhaustive are well-timed and instructive. It will serve as an eye-opener to those countries torn between capital and labour. Much of his investigation hinges on leadership and *esprit de corps* in industry. Centrally it covers the whole sphere of human relations in production, vital importance of which cannot so easily be brushed aside.

Does varying ratio of wages affect output?—

Is worker's efficiency slowed down according to age?—

What are the psychological reactions of men and women in factories and workshops and how to maintain their morale best for acceleration? These questions may seem to be impertinent. But they wrestle with problems. In solving these solutions, capitalists should not gloss over their fundamentals. Instead, they should strive hard to seek for best ways and means amicable to both sides. Human factor in industry and its relation to production are neither overstressed nor overestimated elements. They are not clumped with any new imports. Value of their psychology cannot be divorced or eliminated. It is rather a process of gradual

development. No force can stifle and retard the course. Greater stimulus needs to be laid for maintaining output. On the contrary, it has admitted obligations to facts and figures that social factors in industry weigh much upon progress, health and efficiency. Its effect is profoundly greater.

Analysis of Sir George Schuster's advisory reports tends to point out that greater care, stress and scope are to be laid down upon foremen and forewomen apart from managerial groups. Foremen and forewomen are the backbone of industries. Success of an industrial concern is spun with their ability and capacity. Their methods of training need to be changed. They must learn to adjust themselves to the rapid strides of time. Unless their outlook is not changed and scope is not enlarged, greater portion of their capabilities lies in neglect. They must be imbued with the ideas about control of labour and production and at the same time, they must have a thorough grounding in psychology and management. These measures will undoubtedly help them to be experts at their jobs particularly in human relations as well as on the technical side. This outline of planning will explore a determined step to increase the standards of output. Joint consultation between workers and management can achieve better progress and success. Industrial workers must stand united in their activity thinking themselves as an essential and vital part of the industry. Their joint efforts can help to bring peace and prosperity quickly just like United Armed forces can help to win the war.

In Republic India, the prime need of the moment is the formation of such band of industrial workers.

Handicaps in Agriculture

BY

Atal Behari Sharma

If India is to survive the crisis which is fast enveloping almost all the phases of her economic life, she must step up her food production within the shortest possible period and bring it to a level of self-sufficiency so that the enormous drain of her wealth to foreign countries on account of her food imports may be entirely stopped. The responsibility of producing more food, in the ultimate analysis, would devolve upon those who are actually engaged in the cultivation of land. But the conditions under which the Indian agriculturist is working today are such that it is not possible for him even to keep the level of production steady. The various difficulties and problems of our agriculture are only too well known. But probably the biggest single handicap in agricultural production today is the problem of finding the necessary labour for carrying on the normal agricultural operations. If the Government want their 'Grow-More-Food' campaign to be a success they must take a measure of these difficulties and come to the farmer's rescue with suitable remedies. In the present article an effort has been made to throw some light on the practical difficulties of the cultivator and a few suggestions have been made which may form the basis of a long term plan for increasing our food production to the desired level.

With the present day acute shortage of labour, any scheme that may be envisaged is rendered a mere scheme on paper and cannot be carried out. This shortage is such that it affects all classes of agriculturists, big and small, alike. Weeding, transplantation of paddy and harvesting are such operations that they are always beyond the personal capacity of the agriculturist, howsoever small be his holding and howsoever big his family. The bigger the holding the worse the position. More often than not, the position is that they do not have the desired number of servants or labourers. Supposing for example a cultivator must needs have twenty pairs of bullocks but has for the present only ten pairs and even for working these ten ploughs he has not got the necessary number of hands. He is fully aware that in order to take full advantage out of his holding he must have another ten pairs of oxen but he is already short of hands and so the land goes on being under-cultivated for want of labour.

Then again, in each village there is only a limited number of labourers, say, a set of twenty hands, where there should have been atleast a hundred. Now this set will operate for the whole village and people must await their turn whether the maturity of their crops allows the waiting or not. Consequently,

fields already having crops (otherwise very good and these are the fields generally belonging to smaller holders who have no capital for manure, improvements etc.) are damaged. Big holders also suffer here. It will thus be seen that at least 25 of lands are subjected to poorer cultivation. If, as a result of this labour shortage, the yield of these lands is half (though it is usually less) of what it should normally have been the country suffers a clear loss of 12½% in food. Of what practical use is the Govt's 'Grow-More-Food' campaign so long as this malaise is allowed to continue? Has the Govt. a simultaneous record of this decrease or even that of new fallow lands side by side with the figures of 'Grow More Food'?

Every agriculturist is a living agent of the Govt. for their 'Grow More Food' campaign but he is helpless unless such of his difficulties which he by himself cannot remove are solved. And the first and foremost which hampers all progress is the acute shortage of labour.

The present writer, who has for a considerable time been engaged in the work of cultivation, has some suggestions to offer in this connection. They may be lacking in the academic polish, but to me and to my brother agriculturists with whom I have been discussing the subject, these appear to be some solution of the difficulties at present being experienced by us while carrying out practical agricultural operations on the fields.

1. Every village, under law, should have Kisan Sabha and Mazdoor Sabha of which each farmer and labourer, respectively, should be a member. The

village sabhas should then form Tahsil or Taluqa sabhas over which there should be the District, Provincial and ultimately the All India Kisan Sabha and All India Mazdoor Sabha. This village Kisan Sabha and Mazdoor Sabha should jointly work out a formula of wages and working conditions with a view to maximise the agricultural production of the village. In case there is any dispute on some matter in those bodies, the next higher body should settle it.

All village labourers who left their villages during war time to work in the factories, etc. must come back to their respective villages to work on lands. Any village labourer who wants in future to leave the village to take some other occupation in towns must take a license from the village Mazdoor Sabha which should grant it if the labour conditions in the village permit it.

The Mazdoor Sabha should keep a record of the number of hands and also of the period for which they will be available for non-agricultural operations. All organizations including Govt. and Railways must have their labourers from the Provincial Mazdoor Sabhas. (This will ensure employment to the village labourers when they have no agricultural work to do).

Moreover, Textile Mills and other such big employers of labour from rural areas must be required to change one third of their hands every year. By this they will be saved from having all new and inexperienced hands and labour will not only get a change of occupation but will also have the advantage of higher wages.

Thus the Government must come to the aid of agriculture by regulating the supply of rural labour and determining conditions for its migration to other occupations. There should be a sort of conscription of village labourers for agricultural work. The Mazdoor Sabhas will be there to see that the labourers are not exploited by the bigger landlords.

Besides solving the labour problem in some such way there are some other measures also which the Govt. must adopt in order to facilitate sound agriculture.

a. The Government must come out with an early declaration of its policy regarding maximum holdings of land. At present all sorts of rumours are afloat regarding this and the bigger holders cannot carry on their operations with the necessary degree of confidence.

The minimum holding should be restricted to (i) 5 acres for irrigated lands and (ii) 15 or 20 acres for non-irrigated lands. This measure is highly necessary for checking cultivation of very small holdings which is uneconomic and results in national loss, which is one of the most significant reasons of the backwardness of our agriculture. This would compel the small landholders either to purchase more land or to sell off his holding.

b. There should be one uniform right of holding corresponding to the 'khudkasht' right. This ought to be the natural outcome of the abolition of zamindari and malguzari rights.

c. One fifth of the peasant's holding must be left as fallow land. This will provide independent pasture and grass land for the farmer's cattle.

d. Compulsory owning of one cow for every fifteen acres of land. (For providing them proper nourishment in the shape of milk etc. and also for making possible a supply of bullocks.)

Generally small holders take to selling ghee and rearing she buffaloes for the purpose to implement their meagre income. This results in reduction of fodder necessary for agricultural cattle. Hence no farmer should be allowed to sell ghee unless he has a holding of more than 50 acres and a corresponding amount of fallow land.

e. Cultivators should not be allowed to ply agricultural cattle i. e. oxen for hire (in carting etc.) Plying of bullocks for hire is a very usual practice with the agriculturists these days, this makes them too tired and weak for agricultural use. An agriculturist having bullocks for hiring purposes must obtain a license from the village Kisan Sabha which will demand satisfaction that the bullocks to be hired are other than those used for agriculture and that the number of agricultural bullocks is adequate.

f. Sub-leasing and 'Batai' of every description should be restricted excepting the 'Batai' of monsoon crops given in lieu of wages for weeding. This will be necessary to check absentee-landlordism. The Kisan Sabha should keep a strong watch over this position and should satisfy higher inspecting agencies.

g. Villages having 200 acres or more of 'bara-grass' or forest area to have dairies and cattle breeding farms which should be encouraged or if possible subsidised by the Govt.

h. The village crops should be sold through the Kisan Sabha which see that the persons purchasing it have either participated in agriculture or are otherwise engaged in some work of national interest.

i. Patwaris should act as clerks of the Kisan Sabhas or of the Gram Panchayats (to be formed in each village under the new Constitution).

Patwaris are, as a rule, a source of great trouble and botheration to the farmers. This will check their mischief and the Kisan will feel the real benefit of Swaraj.

j. Every agriculturist to prepare his own manure and give timely information to the Kisan Sabha who will keep a register for this and will register this information after they are satisfied that the farmer has prepared enough manure for his needs.

k. Every cultivator to inform the Kisan Sabha of the steps taken by him for the improvement of agriculture and also of the steps taken by him for the 'Grow More Food' drive, Local Kisan Sabha after satisfying themselves will give the information to the higher Kisan Sabhas which should then supply the statistics to the Government.

The introduction of these rules and regulations, it is hoped, will facilitate proper production from the land under the present circumstances and conditions and take us on the path of self-sufficiency in food. For the present the introduction of mechanized farming, chemical manuring have deliberately been omitted from the discussion as public opinion seems to be divided on the issue and so we have taken only the prevailing conditions and methods of agriculture into account and suggested the above measures of reform.



Gen. DOUGLAS MACARTHUR
COMMANDER-IN-CHIEF OF UNITED NATIONS
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APPENDIX

Factories Act, 1949—Section 79—Leave with wages.

Already we had made a reference in our Weekly Industrial Snippets about the difficulty in the calculation of 1 day for every 20 days' work for the purpose of granting leave for workmen in the subsequent year. We are glad that the Chief Inspector of Factories has interpreted the Section to mean that the number of days of work does not include the period of leave with or without wages, inclusive of Sundays and festival holidays. This would mean that every Factory should maintain a register for each worker showing the number of days *actually* worked by him. The year should be a separate year for each individual worker.

U. S. President Harry S. Truman reviews the parade of thousands of military personnel in Washington, D. C.



*From an
Industrialist's
DIARY*

July 31: Indian
Dominion Parlia-
ment meets to
discuss Korean
war.
August 1: Madras
Legislative As-
sembly meets.
August 15: New
Indian Coins.

August 26: Elect-
ion of President
of Indian Nation-
al Congress.

Sept. 12 — 13:
Indian National
Congress meets
at Nasik.

October 1: Issue
of inland letter
cards of 1½ annas.

The Photograph shows a lakh of spectators at Bolling Field, Washing-
ton, D. C., watching a U. S. Navy Neptune bomber in a jet-assisted
takeoff, a feature of the Armed Forces Day.



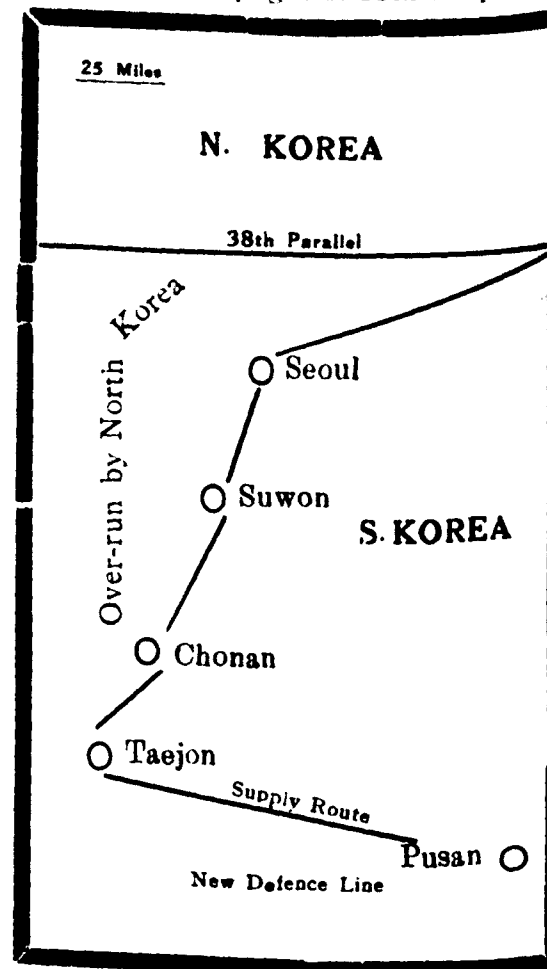
Korean War

Pandit Nehru has taken up the initiative in the matter of mediation in the Korean War. His letters addressed to the three Heads of States, namely of U.K., U.S.A., and U.S.S.R. have not had the desired effect. Pandit Nehru is for settling all outstanding differences among U.N. Members and is for admitting the Communist China in the U.N.O and in the Security Council, replacing the nominee of the Chinese Nationalist Government. This is a fundamental point, on which Russia had been expressing very strongly and had been boycotting the meetings of the Security Council. If this legitimate grievance could be remedied, there might be a chance for the parties coming together and discussing the Korean problem. Pandit Nehru also insists that the North Koreans should withdraw from South Korea at once, as they were the aggressors, before any settlement was possible. We have to wait and see how far the move on the part of India's Prime Minister would really succeed in bringing the Korean War to an end. Russia seems to have responded favourably to Pandit's appeal but not U.S.A. or U. K.

PROGRESS OF THE WAR

Taejon, the temporary headquarters of the South Korean Govt. is now also in the hands of the Communists. The latest information is that though the American Army had not progressed very much and in fact, had been retreating, that seem to have inflicted heavy losses on the Reds both in South Korea

and in North Korea. It may be that the Reds would be thrown back eventually, but the terrible plight of both the parties



in a compact area like Korea is highly disconcerting.

Meanwhile, conscription in the U. S. A., and the President asking for more funds and authority, are important factors in the progress of the War. Several millions of dollars for Military appropriations are being sought, which shows that the war would not easily come to an end.

Minimum Wages Fixation

The Central Advisory Board set up under the Minimum Wages Act met on the 20th July to finalise the arrangements regarding fixation of minimum wages for agricultural labourers before 1951. In Madras, while the question of Land Reforms is being considered by the Land Revenue Reforms Committee with Mr. M. V. Subramanian, I. C. S. as Chairman, the Govt. would not enforce the minimum wages for agricultural labourers before the Committee's decisions were known.

Other items for discussion were :—

(i) provision regarding hours of work, over-time rates in the establishments coming under the Minimum Wages Act, and other enactments; (2) consideration of the draft rules framed by the Central Government under the Minimum Wages Act; (3) irregular supply of paddy to rice mills by the State authorities, and consequent idleness, and its effects on minimum wage fixation in rice mills; (4) laying down certain general accredited policy for implementing the provisions of the Minimum Wages Act within the prescribed time-limit (5) fixation of basic minimum wages in the cement industry; and (6) the principle of minimum wage fixation.

The 'scheduled industries' coming under the purview of the Minimum Wages Act are 13 in number. They are (1) Wool carpet-making or shawl-weaving establishments; (2) rice, flour or dhall mills; (3) tobacco (including beedi) manufacturing industry; (4) plantation labour, that is to say, any estate which is maintained for the purpose of growing cinchona, rubber, tea and coffee (5) any mill; (6) local authority; (7) road construction or building operation; (8) stone-

breaking and stone crushing; (9) lac manufacturing; (10) Mica works; (11) public motor transport; (12) tanneries and leather manufacturing industry; and (13) agriculture.

Report of the First Fiscal Commission appointed by the Independent Government of India

The report of the Fiscal Commission appointed last year by the Union Government with Sir V. T. Krishnamachari as Chairman and 7 Members has just been published. Unlike its predecessors appointed by the British Government from time to time—the last one being Sir Rahimatulla's Commission of 1922—the present Commission has gone into every aspect of India's industry and economy. While the previous Commissions looked into the question of protection of industries purely from the point of view of the capacity of the particular industry, and from the point of view of Imperial Preference, the present Commission—the first of its kind in the Republican India—has examined the question of protection and development of every industry in the land and suggested methods for ensuring internal economic stability. The Commission has thus taken up the role of not only an expert Economic Body but also of an agency for supplying tips for the new Planning Commission.

The following general policies have been enunciated by the Commission :—

(1) Tariff-policy :— The Commission suggests a permanent tariff-fixing authority known as Tariff Commission with increased status and efficiency, which will recognise that tariff protection is a necessity for particular industries.

The protection to an industry will be related to an overall-planning and general economic development in the country ;

(2) An Indian Economic Service would be created, and also a separate agency for administering industries in public sector ;

(3) Protection would be afforded to agricultural products also, and levy of excise duties on protected articles and imposition of sales tax on them by the States would be abolished ;

(4) Prices of raw materials would be fixed by the Central Government ;

(5) Regarding Indo-British Trade Agreement, early trade talks would be initiated between the countries, to revise the original terms of the agreement ;

(6) There would be closer administrative integration between the Ministries of Commerce and Industry of the Central Government and of the States ;

(7) A Board of Trade and Industry will be constituted on a high administrative level ;

(8) An expert Committee to study the population problem is to be constituted, to examine un-employment and standard of living.

It is thus seen that the Report has gone into all plans necessary for rationalisation of agriculture, concentration of basic and key industries like iron, steel, coal, etc. and a sustained drive for increased export to dollar areas. The State initiative and assistance in the promotion of cottage and small-scale industries is also envisaged, and the Commission has recommended an early constitution of an Economic Service as envisaged in the Industrial Policy Statement of 1949.

With regard to public sector, priority has been suggested by the Commission starting from Defence Industries and multi-power projects, and key minerals, then public utilities like Railways, and lastly heavy key and basic industries. It has been suggested that the rationalisation of the existing

industries should be combined with establishment of new industries co-ordinating with the existing industries.

We are happy that the Commission has gone into the question of concentration of industries in particular areas and has recommended zonal development. On foreign trade policy, the Commission has enunciated conditions for increasing foreign exchange. Exchange rate adjustments and regional trading arrangements even bilaterally have been suggested. A pattern of import trade should be developed and so also a pattern of export trade to enable India to pay for her essential imports. Lastly, the form and quantum of protection to be given to industries should be decided by the new Tariff Commission, who will lay down the criteria to be applied for granting protection, such as the economic advantages enjoyed by the industry, other direct and indirect advantages, availability of raw materials, potential export market, and the ability of the industry to meet the domestic demand and exports.

Regarding foreign capital, the Commission has suggested that the Government should be free to invite foreign capital on such conditions that may be laid down for development of industries both in private and public sectors. The whole Banking system in the country should be reviewed in this connection with the help of the Indian Economic Service to be constituted.

Though we appreciate the entire review of the Fiscal Commission in its general study and enunciation of main principles of industrial development, our practical difficulties have always been with regard to co-ordination and working of particular industries on proper lines. We, therefore, feel that a mere over-all picture alone of our present problems cannot solve the difficulties faced by the Industrialists in particular zones. Thus, in the matter of planning, the general economic development should be combined with zonal development of specific industries, in a huge sub-continent like ours.

NEWS OF INTEREST

Mauritius interested in Indian goods

There is a good demand for Indian-made (both superior quality and inexpensive) textiles, hosiery, leather manufactures, paints and varnishes, brass-ware, plastic goods, oils and even fancy goods. The Indian Trade Commissioner will be in a position to help the local exporters.

Import Duties on Raw Films

The Government of India is considering the abolition of import duties on raw films.

Syrup from Cashew Apple

Experiments at Kodur (Beliary) Fruit Products Research Laboratory have shown that a palatable drink, good for health, can be prepared from cashew apples.

Reservation of Scheduled Castes in Legislatures

The President of the Indian Union will issue a notification shortly specifying the name of those castes and tribes under Articles 341 and 342 of the Constitution.

Import of Newsprint from dollar areas

Licenses for July-Dec. 1950 and Jan-June 1951 will be issued valid for 12 months by the Chief Controller of Imports.

Latest date for established importers Oct. 31, 1950
do. actual users Nov. 30, 1950.

FLOATING OF LOANS BY STATE GOVTS.

The Reserve Bank of India has recommended to the Madras and Bombay Governments to continue the under-writing system for raising their loans as in the past. The Bank has also added that both Madras and Bombay could successfully float short-term loans of three crores each for a period of ten years at three per cent interest, the issue price being round about Rs. 99. It is stated that the Bombay Government wanted Rs. 6 crores and the Madras Government about Rs. 10 crores. Tenders have been invited.

Applications from Newspapers

Applications from Newspapers for licenses to import their requirements, including machinery, chemicals, films and newsprint should be addressed to Post No. 284, New Delhi.

16,000 tons of iron and steel to Madras Agriculturists

It has been arranged that stockholders should first apply to Co-operative Societies having permits. 16,000 tons of iron and steel for distribution to the agriculturists at Rs. 338/- per ton plus Rs. 30/- for handling, etc. are immediately available.

A New Bulletin

We welcome a new four-page Weekly Statistical Supplement issued from 1st July added to the Monthly Bulletin issued by the Reserve Bank of India.

Reserve Bank for Ceylon

The new Reserve Bank has just started, and sterling assets agreement of Ceylon with U.K. is the first item in the Agenda.

I. C. T. U.

A 4 man-delegation of International Confederation of Trade Unions is on a visit to the S. E. Asiatic Countries, and they have finished India.

From British Information Services

Record Production of Radio-Active Isotopes

Britain's Atomic Energy Research Establishment at Harwell is breaking all records in producing radio-active isotopes, used in hospitals and laboratories throughout the World for medical diagnosis, treatment and research. During this year so far 3443 consignments have been sent to 20 countries.

Aviation News

'Duchess' — Britain's First Jet Flying Boat

Saunders Roe, the well-known British Air-craft Manufacturers have designed a six-jet flying Boat called 'Duchess' claimed to be the most economical medium-range air-craft in the world. The new flying boat is being used by Tasman Empire Airways for 1500-mile flight between Australia and New Zealand. It is equipped with six jet engines.

Small plane with 'Pullman Car' comfort

A British air-craft firm is producing a new version of "Super Ace" the well-known family plane, with all comforts of seating, and seats upholstered in washable royal blue plastic leather. The air-craft has a capacity for a pilot, 3 passengers, and 100 lbs. of baggage at a standard range of 400 miles.

'Brabazon' to fly round Britain

The Bristol 'Brabazon' will take off fully loaded for the first time at the top cruising speed of 250 m. p. h.

New Aerial System

The 'Comet' is the first British Civil Air-craft to be fitted with a complete system of suppressed aeriels developed in Britain. This system located in the fuselage and wings represents entirely a new technique of aerial installation in air-craft, avoiding the long-standing puzzle of the modern air-liner, i. e., drag. Another air-liner 'Ambassador' is also to be equipped with this system.

"Co-operative Day" on July 1

More than 100 million members in some 40 countries observed the "Co-operative Day" on July 1st. In Britain 'the cradle of co-operation,' the movement is 106 years old and co-operative principles have borne fruit most rapidly, in guiding the work in Britain's economic life. For example, the U. K. Co-operators have played a great part in persuading the Govt. to convert its scheme of 'nationalisation' into one of 'mutualisation.' Also, it has mastered the economic problems of childhood and adolescence, such as reducing the cost of distribution of all their necessities. The turn-over of Co-operative distribution in U. K. amounts to 400 million £ a year. The principle has been kept alive by U. K. retail co-operatives which buy about one-third the supplies from non-cooperative wholesalers.

OUR SPECIAL ARTICLES

A BROADCAST TALK

ON

TILE INDUSTRY IN MALABAR

BY

MR. E. P. NANOO

GENERAL MANAGER

The Standard Tile & Clay Works Ltd., Feroke

By Courtesy — A. I. R. KOZHIKODE

I have been asked to speak to you on 'Tile Industry in Malabar,' which, as you know, is one of the National Industries earning foreign exchange to the extent of 6 million rupees every year. It is an industry peculiar to Malabar in several respects, as its soils are particularly suited to the manufacture of tiles known as "Mangalore Tiles," with their perfect terracotta surface on the ceilings of beautiful bungalows, buildings, and farm-houses of most of the South-East Asian countries such as distant Australia, New Zealand, Malaya, Burma, Ceylon and Africa on the other side. The Tile industry in Malabar is of both cottage and medium-sized type, engaging about 5 lakhs of labourers in the entire district.

The number of tile factories in the West Coast is about 150, of which Malabar alone has 115. The capital invested on this industry is estimated at 6 crores of rupees. Feroke, a place 6 miles off Calicut towards the South, and its surroundings have 32 tile factories, the special charm of the locality being that it is situated on Beypore river which links with Canolly canal at the nearest port, Beypore. This port forms part of Calicut port for purpose of administration. The development of Beypore as

an All-weather Port, so that tiles could be manufactured and exported throughout the year to meet the entire demand in South-East Asian Countries and in India itself, is being pressed for a long time before the Government, and ere long we expect a favourable decision. The use of Beypore Port all-through the year would not only provide for an additional 20,000 labourers in Malabar, but would also earn further exchange to the extent of 3 million rupees.

HISTORY OF TILE INDUSTRY

I shall now briefly deal with the history of tiles.

The Basel German Industrials started the first tile factory at Mangalore about the year 1865, and that is why these tiles are known as "MANGALORE TILES." Now practically the whole of the tile industry is in the hands of the Indians, the factories centering round Feroke in Malabar, Trichur in Cochin State, and Mangalore in South Canara. Mangalore and Beypore are the chief Tile ports. The rapid streams from the Western Ghats after passing through long-distanced forests carry their tile-making clay and percolate into the neighbouring fields, which are located on the banks of those streams.

Thus, these streams serve three-fold purpose—of depositing clay for manufacture of tiles, for transport of firewood to the tile factories, and for outward transport of tiles to the nearest port. Huge stocks of clay to be used for several years are available at the banks at Beypore, Gurpur and Netravati Rivers. Clay is usually carried by boats to the Factories. Country crafts are used for carrying firewood and tiles.

TECHNIQUE OF TILE MANUFACTURE

The entire work of tile manufacture is in the hands of manual labour and unfortunately in spite of the national importance of this industry, the technique of manufacture has not progressed much through the centuries. Feroke factories, however, are more modern in that they are managed by Joint Stock Companies and have considerably mechanised the pressing, conveying, and elevating operations. But kilns are mostly of the old pattern but here too mechanisation is fast creeping in. Stacking, heating, sorting and loading are all done by labourers. Most of the Factories do not have sufficient floor space, as sorting up of clay, firewood, and finished tiles occupy a lot of ground space. Also pugmill grinding, pressing, and the kiln chambers are to be on the ground floor only. The first floor of the kiln is used for baking tiles and the feeding of firewood is controlled from the upper floor which is also utilised for stacking raw tiles in layers, so that they may get dry with heat from the kilns.

FOUR STAGES IN TILE MANUFACTURE

Clay tempering, pugmill grinding, tile pressing, and baking are the four

main processes. Clay from the fields is measured in boxes of about 13.5 cubic feet in volume. Moisture and sand are added to make up the required plasticity. Clay heaps exposed to rain and sun enable to get the clay well-seasoned. No dirt or debris should get mixed up with clay. Wheeled trolleys or conveyors carry the clay to the pugmill, where clay passes through twice between rollers, and being well-ground it comes out of a rectangular orifice to the cutting table, in blocks cut to the required size. The clay blocks are stored and after they are sufficiently dry, they are removed to the tile presses for pressing—either the screw press worked by hand or the revolving press worked by power. Inferior coconut oil mixed with kerosene is used to prevent clay sticking to the dies. After pressing, the tiles are received on pallets which are taken to vacant spaces in the racks for drying. The dried tiles are then arranged in sets in the kiln chambers which being air-tight are kindled. The continuous kiln usually consists of 16 chambers, of which two are kept empty, five are filled with raw tiles ready for burning, and the remaining chambers are left after burning for slow oxidation. Slow and steady heating and baking of tile takes place for 12 to 18 hours. After the tiles are unloaded from the kiln chambers, they are sorted into classes according to the sound and appearance of each tile. A first class tile can support 300 lbs, and when soaked in water for 24 hours, the weight would not increase by more than 16%.

RESEARCH

In spite of the national importance of this industry, it is regrettable that research in the modern sense has not

been undertaken either by the industry or by the Government. There is not even a single School or an Institution for training the technicians and the labourers connected with the industry. The Indian Standard Institution at New Delhi has yet to consider evolving standards for the tile products. It is, therefore necessary that Scientists should take up research work on a high level of tile manufacture in its varied aspects. Firstly, the question of obtaining the required plasticity for the clay and seasoning it to suit the varying atmospheric conditions. Then again there is the question of bringing it to a standard to suit different tastes and buildings in tropical, sub-tropical, and temperate climates. The mixing up of inferior oil with kerosene to prevent the clay sticking has to be substituted by oils suited to tile manufacture.

Then again there is the problem of constructing suitable kiln chambers to regulate the temperature and to spread evenly the heat through the layers of clay suitably arranged. There is also the problem of classification into different grades of the resultant products.

It has been further found by research that the burnt earth of tile factories may form a cheap and locally available raw material, especially in areas like Feroke, as a diluent for potent chemicals which are mixed in mills with China-clay overseas and the Indian cultivator made to pay for the voyage of the bulky China clay-makes from foreign countries.

Another economic aspect of tile manufacture which has not been fully explored is the question of utilising the clay fields necessary for tile manufacture

for other purposes such as for cultivation of suitable crops and finding avenues for utilising those fields. It has been recently found in Assam Tile fields that long-range crops such as sugarcane could be cultivated in fields from which clay is removed for manufacturing tiles. In a district like Malabar where tile industry takes up a fairly wide expanse of fields, it is necessary that the Agricultural Department should explore the full use of those fields for cultivation purposes, after the clay is removed.

STATISTICS

Tiles are quoted in 1000's, Exports are generally made loose or in bundles of 4 tied with coir yarn. The chief exports are to East-Africa, Ceylon, Burma, Malaya and Australia. The present prices are between Rs. 155/- to Rs. 145/ per 1000. The exports form nearly 70% of the total production. From Beypore alone 1½ crores of tiles valued at Rs. 25 lakhs went Overseas during 1948-49. Authentic data are not available regarding cost of manufacture, but it is estimated that on an average it comes to Rs. 100/- to Rs. 110/ per 1000 tiles of which Rs. 50/- to 60/ is on raw goods, Rs. 30/- for labour and Rs. 20/- for handling.

TILE MANUFACTURER'S ASSOCIATIONS

There is need for an industry like Tiles earning foreign exchange, to organise itself on proper lines. The economics of production should be incessantly studied and the technique of manufacture should improve. Other problems affecting the industry such as transport, machinery and labour have to be tackled in a co-ordinated way. There are two

Tile Manufacturers' Associations existing in the West Coast; one with headquarters at Calicut and the other at Mangalore which are using all their influence and co-ordinated effort to make the industry modern and scientific. Mechanical processes and devices should be largely employed to make labour simplified and produce more and more tiles to meet the requirements of house-building schemes in the entire world. This is one industry in Malabar which is of both national and international importance, which could employ more and more labour, and could improve labour conditions in Malabar.

Our Radio Tit-Bits-I

BY

MR. K. V. BABU

B. Sc., Marc. DIP. (England), A. M. I. R. E. (N. Y.)

Whenever we hear about the purchase of a Radio or about the repair of one, we hear that a valve of this or that type had been used. Also the cost of a set is high, because of valves mainly, though three valve factories are now schemed at Bombay, Mysore and Calcutta. There is an interesting story connected with valves. An ignoramus suggests opening and pressure adjustment in radio tubes. He apparently does not know the difference between hydrostatic and electronic valves. Similarly it is not easily understood that the diode and hydro-valve are unidirectional in action, though in the diode the flow can be controlled.

Cost of Receiver	Cost of valves	Cost of other things like condensers, resistors
Rs. 300/-	Rs. 60/- or 20% of receiver cost	Between Rs. 80/- and Rs. 100/- or 33.1/3% of receiver cost

For one of the highest-priced receiver, say, costing Rs. 1200/- there can be in it about 13 tubes, the comparative costs being:—

Cost of receiver	Cost of pick-up system	Cost of valves	Cost of other things
Rs 1200/-	Between Rs. 250/- and 300/- or 25% of receiver cost	Rs. 130/- to 150 or 12% of the cost	about Rs 200/- or 16%

The costs of chassis and cabinet, import duty, etc. are not shown. There are concerns in Madras and elsewhere, where condensers of some types only, resistors, and even transformers are made. There are some admirable instances of locally assembled receivers, all-wave, universal, quality receivers, which compare even with a Rs. 400/- receiver of foreign manufacture, costing here only Rs. 170/-. Even in costlier communication-receivers like the Hammerlund, the proportion of cost of valves is only 20 to 30%. This raises the question of mass factory production of valves in India, as an urgent scheme.

Construction of a Radio Valve

The construction of a radio valve follows in general that of an incandescent tube used in electric lighting. These are made by the Mysore Bulb, Bengal Bulb and other factories. Yet, the construction is variant in some aspects. The different electrodes are supported by wires which are driven into a press. Three or four wires, as the case may be, are passed through glass, to act as leads to the pins. A mica-insulator is used to separate electrode from electrode. After spot welding, the electrodes to the supporting wires press being ready, the bulb is sealed to the stem. The air is now pumped out, the process usually taking several hours.

The dis-similarity between an incandescent bulb and a radio valve is one of multiplicity of elements or electrodes in the latter.

Different types of Valves

The different types of valves commonly used are—the diode, the triode, the screen grid tube, pentode, hexode, etc. In the diode, there are two electrodes. This is used for detection or extraction of intelligence from a passing electromagnetic wave. It passes uni-directional current only. In the triode, the third electrode called the control-grid is added. This increases the usefulness of triode in several ways. The triode by means of various couplings can be made to be a power amplifier, a non-power amplifier, an oscillator, etc. Indeed the most important type of valve in a receiver is the triode. Next, we have the screen-grid, pentode, hexode, etc., with 4, 5, 6 etc., electrodes. Complication thus arises in arranging the electrodes. The valves not often used are the beam tube, the inverted triode, and the negative resistance tube. There are also valves specially used for low-wave lengths used in television, radar, etc. The beam tube is a pentode in which instead of the fifth suppressor grid, there is a beam-forming plate. The characteristics of this tube are those of a pentode, except that constancy of

plate current is reached at a lower plate potential. A duplex tube which has essentially two tubes in the same glass-envelope has the advantage of economy of space at a lower cost. This is offset by a lesser lease of life. The inverted triode is a triode in which the anode and the control grid function as the control grid and the anode respectively. The tube is only a laboratory instrument for controlling high current. The negative resistance tubes are the most interesting tubes. The dynatron is one such tube, where the negative resistance up to 10,000 ohms is obtained by secondary emission. Only a dynatron oscillator is at present used to a large extent. Now about valves of the transmitting type, we find the percentage cost of valves has decreased, due to the high cost of oil transformers, and other equipment costing doubly those used in receivers. In the rectifier panel itself, there are six valves costing Rs. 24,000. Thus the percentage cost of valve would be less than 15. This is so because the total cost is made up by other costly elements.

Elements of a Valve

In all the valves mentioned, there is a heater element which is the source of electrons. The heater element is either thoriated-tungsten or an oxide-coated alloy, consisting of a mixture of strontium oxide on nickel. Sometimes the costly platinum base is used. The operating temperature for these is 1900°, the life of this being 3000 hours. Round this, is the grid which may be an open mesh structure with

holes. The fine wire is coiled circularly round the cathode and with the indirectly-heated tube the cross-section is oval. All these form a grid construction, which reduces the cost, and quickens production etc. The grid structure is usually iron nickel or manganese nickel alloy. The positive plate is either of nickel or iron. The surface of the plate is turned into a flange and is made black to increase radiation of heat. The metal tubes, whose leading wires are of a ferri-nickel alloy and glass tubes make all important differences. Evacuation has to be done both by a motor-driven oil pump and by a molecular pump to remove air and occluded gases. The latter gases are removed by heating the valves and getting the gases to combine with the getter. The getter is usually of magnesium. Some identical valves used are (56, 76)(6C6, 57, 77).

Valves for the Transmitters

As to the valves required for the transmitters, the filament is made of tungsten or molybdenum. The plate is of graphite or tantalum. The tubes here are larger with special provision for cooling the tubes. In construction, evacuation is done by keeping the tube in an oven, maintained at a temperature just below that of the softening temperature of glass. Another feature is that of a resistance in series with a filament to limit the flow of current into the evacuated tube. To give an idea of this rush, the filament power is 1000 watts in 848-transmitting valve and only 5 watts in 531-receiving valve. The power required for these valves

is got from high vacuum thermionic rectifiers or mercury vapour rectifiers. In the high vacuum rectifiers, the filaments are made of tungsten and the rectifiers are water-cooled. Water is drawn through by siphon action. In the smaller tube, the filaments are of thoriated tungsten. The hot cathode mercury vapour rectifier contains (i) a small plate and (ii) a five-volt oxide coated filament. The plate is more like a cap fitted over the cathode to avoid flash back. These rectifiers are noted for their efficiency, better regulation, and low first cost.

Cheap Sets without Valves

Smallest crystal sets costing about Rs. 10 to 20 can be made as a hobby. What costs more than Rs. 25/- in the market can be brought down to Rs. 15/- with a little painstaking. The materials required are:-(i) a pair of headphones (2) a quartz crystal (3) a coil which is to be made and (4) an ordinary condenser. The whole thing could be arranged so that one end of the coil is open and is allowed just to touch the crystal. This is not powered and can only be used if the transmitting station is near the set-installed place say within 3 to 5 miles. A battery-powered set can also be made with a crystal with or without valves.

Industrial Aspects of a Valve Factory

The industrial and economic aspects of a valve factory are:—(1) The number

of men to be employed may range between 100 to 150 to make 1600 man-hours a day. This can be increased if subsidiary and non-essential materials are also to be made. (2) As to the sale of a set to a wholesaler, 5 to 10 times the normal spares should also be sold, which assures the profit on a set. (3) Though some of the valves of one patent manufacture are replaceable by another type, the costlier valves cannot usually be duplicated. (4) The raw materials for making the valve are usually locally available, such as sand, quartz etc., (5) Also, construction of a valve is a simple affair not requiring much of heavy or costly machinery and (6) lastly, the larger the valves used in the Transmitter, the larger the profit and (7) About the subsidiary materials which can be made to increase the output and profit, a list is given below:—

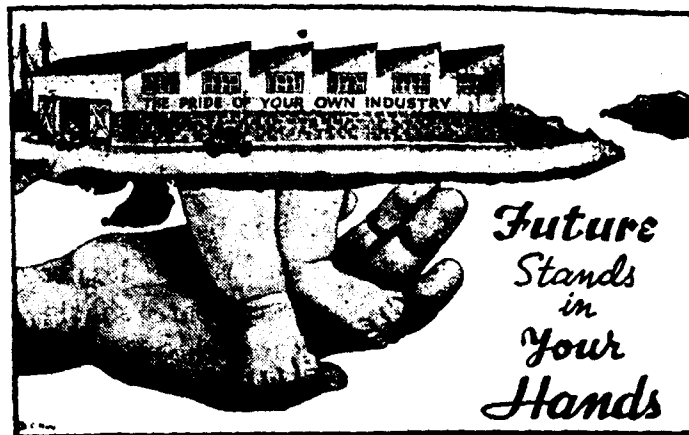
Oil cooled transformer, celotex, glass-wool, microphones, gramophone pick-up, inter-studio cables, mica, wiring materials, cooling systems, etc.

Conclusion

Now that a radio has become an essential in an Indian home, it is the duty of the Govt. to encourage manufacture of cheap valves on a mass scale either through their own factories or through private enterprise.

New Board of Engineering Research

The President of the Republic has constituted a Board of Engineering Research of 19 members to function as an Advisory Body to the Governing Body of the Council of Scientific and Industrial Research. Mr. A.N. Khosla will be the Chairman of the Board.



C. Sivajee Rao. Business Consultant, Bezwada

Whose Hand?

LABOR **CAPITAL**

DISCORD

For Service and Installation of
HUMAN-RELATIONS MANAGEMENT,
C. SIVAJEE RAO,
BEZWADA.

Mr. C. SIVAJEE RAO, Business Consultant, Bezwada, says:—

“The problem confronting industries is more internal and less external. It is very difficult to change ideas and procedures built over the many past generations.”

EDITOR'S JOTTINGS

Korean War

It is a pity that Pandit Nehru's initiative in seeking a formula for settling differences between the two opposing Power-Blocs has not met so far with a satisfactory response from U. S. A. or U. K. While Russia appreciates Pandit's suggestion that Communist China should be admitted at once in U. N. O. or Security Council, U. S. A. and U. K. strongly feel that any settlement is possible only after the North Koreans move back at once beyond the 38th parallel. Thus, it seems that difference between the two opposing wings is fundamental and deep-rooted, which can be settled only 'if there is a will'. But neither Russia nor Communist China would actively involve herself in the War, though the latter may come out any moment to attack Formosa. Thus, for the moment, the U. N. O's war-resolution backed by 45 Nations is on a crucial test, and peace-loving countries, war-fatigued particularly after 2 World Wars in course of four decades, are keen about a quick settlement, lest the Korean War should burst out into a world conflagration. We hear that Pandit Nehru is making another strong peace-move and we hope, trust, and pray that better counsels would eventually prevail for a quick settlement and enduring peace.

War Fronts

The Korean War now consists of five distinct sectors, forming a wide arc with Taegu as the pivot.

From South-West to North-East, they are:—

- (1) Chonju Sector:— North Korea's flanking drive
- (2) Taejon Sector:— American troops are helping South Koreans
- (3) Hamchang Sector:— do -
- (4) Yongju Sector:— Parallel North Koreans' Southern drive
- (5) Coastal Sector:— American units at Pohang opposing Communist forces

Progress of the War

The latest news is that the North Koreans' out-flanking thrust through the South-West plains of Korea is still further reducing the American defence pocket. Four big South-West towns have fallen in the hands of North Koreans. But both at the Centre and the East, heavy losses seem to have been inflicted on North Koreans by U. S. A. Army. But strong American preparations and fresh contingents of Army and Navy arriving in Korea are a precursor to a determined fight on the part of the U. S. A.

Bombay Industrial Court's Bonus Award

To a recent reference from the Workers' Associations, the Bombay Industrial Court has awarded bonus for two months to the workers in all Textile Mills except in four. The Court have also in their discretion allowed a dividend of 6% on paid-up capital including reserves, and have worked out a formula for deciding the quantum of bonus admissible in future years. As this award raises important issues, it is sure to go to the Appellate Tribunal. The main question for consideration is that in granting bonus to a worker, how far the Profit and Loss Statement of a Factory as decided by the share-holders could be tampered with even by a Court to decide the question of bonus. If 'bonus' means 'profit-sharing', how is the human element to be equated to capital? Fixing up bonus arbitrarily, whether the Industry makes a profit or not, is not only unscientific but would create perennial trouble in capital-labour relations.

The Hon. K. M. Munshi once again on 'CONTROLS'

The Hon. Minister K. M. Munshi had adduced two arguments why 'controls' are necessary in India:— Firstly, they prevent rise in cost of living, and

INDIA'S TRADE

U. K. Trade With India

	In Million £ 1949	In Million £ Jan-May, '50
Machinery	38.9	16.3
Vehicles	15.8	6.5
Electrical goods	9.3	2.7
Chemicals, drugs, etc	10.3	2.4
Rest	42.8	8.8
Total All Exports	117.1	36.7

India's Tariff Board at Work

Milk Powder Manufacturing Industry in India has asked for protection.

Indo-Swedish Trade

—New Exchange of Letters

The original Agreement expiring on the 30th June has been extended to the period July to Dec. 1950. Commodities available from Sweden cover chemicals, electrical equipment, ball and roller bearings, timber including plywood, paper, refrigerators, wood screws, scientific instruments, etc. In return, India will supply cotton textiles, leather goods, sports goods, drugs and medicines, vegetable oils, essential oils, spices and cashewnuts, tea and coffee,

tobacco, shellac, mica, manganese and magnesite, fishing nets, crushed bones and rosewood, and other timber.

Economic Possibilities of Tung Oil

Experiments at Research Institute at Dehra Dun show that Tung Oil got from what is known as Tung Tree (of the same name in China) show its wide usefulness as an ingredient for paints and varnishes. The Institute has published a pamphlet giving all information regarding temperature, rainfall, soil, and altitude suitable for the growth of the tree.

Indo-Austrian Trade

Pact Extended

The Trade Pact which expired on the 30th June has been extended by three months.

Prospects of increased Tea Production in India

With increased export allotment of 452 million lbs. during 1950-'51 and India exporting to earn 78 to 80 crores of rupees, India's production is expected to go up to 600 million lbs. before Dec. 1950.

Textile Export to Soft-Currency Areas

Procedure for export of 125 million yards of coarse and medium cotton cloth for July-Dec. 1950 has been announced.

News of Interest

STANDARDS ON ROAD TAR AND CUTBACK BITUMEN

To ensure constructional efficiency with economy in various road projects, the Committee of the Indian Standards Institution have issued two drafts Standard Specifications for Road Tar and Cutback Bitumen for further comments. Five Standards have been laid down to suit the country's weather and working conditions in respect of properties such as viscosity, equiviscous temperature, softening point, moisture content, etc, covering all the physical and chemical requirements of the material for use.

HARD AND SOFT CURRENCY AREAS—DEFINED

For purposes of import into and export from India, the Govt. of India have revised the list of hard and soft currency areas, as follows:—

- (1) *Dollar Area*:- U.S.A., Canada, and all American Account countries.
- (2) *Hard Currency Area*:- Argentina, Belgium, Western Germany, Switzerland and Japan.
- (3) *Medium Currency Area*:- Portugal (excluding Portuguese India).
- (4) *Soft Currency Area*:- All other countries except Pakistan and South Africa.

Delhi Tripartite Talks on Kashmir have concluded, but to be renewed at Karachi soon.

Land Reforms in Kashmir

The recent announcement of land-parcelling per capita in Kashmir is being examined by the Govt. of India.

Zit-Bits

Licenses for art silk yarn will be issued for imports from soft currency countries—Japan and Switzerland — for July-December 1950 to established importers.

Import of Motor Cars and Trucks is to continue till the end of 1952.

The landed price of imported copra in India is now Rs. 1552/- per ton (including Rs. 300/- duty)

1222.5 million dollars worth of military aid have been approved by the U. S. A. Congress for military aid to Free Nations.

Over 70% of the one-crore loan of People's Loan for Manimuthar Irrigation Scheme has been subscribed.

Madras Govt. have applied for loan to the Union-Ministry of Agriculture for their Food Production Plans.

Belgian Parliament has recalled the 50-year old King Leopold from his exile.

OUR SPECIAL ARTICLES

A FEATHER IN LABOUR'S CAP

By M. G. BOKARE, M. Com.

Released for favour of publication by International Syndicate, India.

Labour troubles are generated in the attempts of employers and labourers to adjust themselves to social conditions which in themselves are dynamic; and any change calls for adjustment of the relations, which probably do not fit in with the changed circumstances. This is particularly found in a capitalistic society, where the views of the labour cannot be those of capital. The problems of labour-capital relations are not new to this century. They are as old as civilisation itself, and such problems have got their traces in all the civilised countries. Consider the apposite remarks of Mr. Fitzpatrick: "Only in a stagnant society can labour-peace be assured. Nowhere do we find organised society without finding labour troubles except among dumb animals."

NEW LABOUR BILLS

Now the Labour Relations Bill is on the carpet in New Delhi along with other bills pertaining to labour problems. The bill consolidates the existing Industrial Disputes Act and Industrial Employment (Standing Orders) Act, and covers certain aspects of Indian Trade Unions Act, which is also to be revised. The Labour Relations Bill is primarily meant for promotion of peace in Industry, while Trade Unions Bill is to foster healthy trade unionism. The necessity

to have a comprehensive Labour Relations Bill was felt severely these days. "After the experience of the administration of Industrial Disputes Act, I have to say, rather reluctantly, that there have been a very large number of scrupulous employers who have taken undue advantage of the provisions of the existing Industrial Disputes Act to punish the workers." This is what our Labour Minister declared in the Parliament in his reply to the debate on the bill which sought to rectify the lacunae.

The outstanding feature of the Bill is its pyramidal structure of negotiation and judicial authorities, with Registering Officers for standing orders and Works Committees at the bottom; conciliation machinery consisting of Conciliation Boards and Standing Boards for settlement of disputes; and above all the judicial structure of Labour Courts, Industrial Tribunals, and Appellate Industrial Tribunal, with the powers and dignity of Supreme Court in the field of labour relations.

APPELLATE TRIBUNAL

The Appellate Tribunal, which is a novel addition of its kind, in this country has roused much controversy. The Government's views regarding the necessity of such a Tribunal as an apex to the judiciary of the land have been

incorporated in the 'Statement of Objects and Reasons' published along with the Industrial Disputes (Appellate Tribunal) Bill 1949, which has now become an Act. In fact this Act is incorporated in the comprehensive Labour Relations Bill, but the bill has been passed, as it is deemed to be urgent pending, the final enactment of the Labour Relations Bill. The working of Industrial Disputes Act 1947 which introduced for the first time the principle of adjudication as evidenced the need for a Central Appellate Authority, which by its decisions would coordinate the activities of the large number of Industrial Tribunals who have taken divergent views on important issues such as profit sharing, retirement benefits etc. Industrial undertakings with branches in more than one Province and particularly those that employ transferable staff on an All-India basis, have to face anomalies and complications arising out of the varying decisions of Tribunals in different Provinces. As a result, there has been a persistent demand for some time past for the setting up of an Appellate Tribunal.

In connection with the Central Appellate Authority, constitutional difficulties have cropped up. Such an Appellate Tribunal with jurisdiction over Provincial Tribunals was not permissible under the Government of India Act 1935 and the Act itself was amended and authenticated by the President of the Assembly on 10th January 1949 empowering the Central Government to initiate necessary legislation.

The Appellate Tribunal shall consist of a Chairman and such number of

other members as the Govt. of India may find it necessary, the members to be persons of the status of High Court Judges. Assessors may be appointed by the Tribunals for advice on technical matters in any proceedings. The Chairman will constitute as many Benches of the Tribunal as may be necessary, each bench to consist of not less than two members. The jurisdiction of the Tribunal will extend over all Industrial Tribunals, Industrial Courts, Labour Courts, Wage Boards etc., in the country, whether constituted under the Central or Provincial enactment.

Ordinarily, Labour Courts will be primary institutions of judicial proceedings. The grievances of labourers put up through their properly elected representatives or Registered Trade Unions will be decided by these Courts. The Labour Relations Bill has banned lightning strikes and has provided for the regularization of the industrial dispute if it arises. Faith in the efficacy of friendly negotiations between the employer and the employees is the very basis of the Bill. It is necessary that either party must give a notice of a strike or lockout, and on the receipt of such a notice the other party shall start negotiations within seven days; and if these negotiations are started they should be concluded within 14 days in case of public utility service, and 7 days in any other case, unless the said time limit is extended by mutual agreement. In case of a breakdown, 14 days' notice is necessary in a public utility service before a strike or lockout can be declared. The strike or lock-out inconsistent

with those provisions is illegal. Moreover, labourers cannot resort to strike, once a dispute is referred to a Labour Court or to a Tribunal for adjudication, and breach of the order of Labour Court is punishable with 6 months' imprisonment.

The Appellate Tribunal will hear appeals from any decision of the existing industrial Tribunals and revise if necessary any order of the Labour Court. Appeals will lie to the Tribunals only in matters involving finance, classification of grades, retrenchment of staff and question of law. An appeal will be to the ordinary Tribunal on the decisions of Labour Court, and it will however be confined to disputes involving fundamental issues. Furthermore, a right to appeal is provided to Central Appellate Tribunal which will entertain appeals on substantial questions of law from decisions of these ordinary tribunals. The existence of such a revising authority should serve as a salutary influence on the tribunals in the country. And finally, the Bill has centralised all powers in the State Governments by provision authorising them to reject or modify the awards of this Appellate Tribunal. This has received mixed feelings among those interested in labour problems. Advocating in favour, it is argued that the national economy is the responsibility of the State and any decision apparently harmful to it should be rejected or rectified in the interest of the nation. Secondly, the Appellate Tribunal discharges its functions from the point of law only and to secure justice. The

questions of facts are equally important. The opponents plead of bias which the Government may have against a particular section and say that this may be used to keep their prestige and honour untarnished, even sometimes to the detriment of the workers. This is dispute of theory and practice, and one can only say that till the Government is truly representative and if the man at the helm uses it sparingly and only in emergencies, this provision will do more good than harm. And even in the cases of decisions High Courts and Supreme Courts, such a right to commute sentences has been conferred upon the State.

ANALYSIS OF LABOUR TROUBLES

At this stage, an analysis of causes of labour troubles would help us in assessing the importance of such a comprehensive machinery. It has been commonly found that labour management relations rest upon assumptions that employers are interested only in profits and labourers think of little else but wages. The research in this has brought home new lessons. Money is no doubt the important consideration for both employers and employees. But the causes of trouble are not strictly economical, though the problem as a whole is rooted in economic necessity and requires an economic tool, but basically it is a problem which is human first and human last—a problem of adjusting men to men, men to themselves and men to matter. Men are men and not ants and bees, because they have intelligence

and will, and they have personality which demands respect. An approach to labour troubles with this basic concept calls for a humanitarian consideration rather than economic tools.

Provided we accept this humanitarian outlook of labour problems, the solution lies in dealing with a dispute on personal level rather than erecting a gigantic and complicated machinery, as is envisaged in the new legislation. All problems must be dealt with at the factory level and as far as possible the two parties to a bargain should be given full opportunities to settle up their issues. This necessitates the recognition of Trade Unions by the employers. In India in spite of long years of industrial development, the spirit of labour-capital relations still remains to be appreciated. Labour is becoming more insistent that it shall be heard, understood, and its demands satisfied. So also the employers complain about the insecurity, political and economic, to which they are exposed. Workers in India are yet to be conscious about their role in production, on which the national prosperity hinges. Employers too are reluctant to recognise the working class. Thus both workers and employers are the legal frame into which both will find necessary conditions for establishing closer relationship.

A mere rigidity in sections of law cannot vouchsafe such a cordial relationship. That Government is best which governs the least, is a popular maxim known to every tyro; and there are instances in support of the same.

Britain is an unique example in this respect. Britain's industries suffered from industrial stoppages, not because she fancied in agglomeration of laws, but due to the healthy atmosphere that she could succeed in creating for workers and employers alike. The spirit of collective bargaining has been best appreciated in England, not because it was forced upon them but on the contrary both resented the State intervention in their local problems. While in U.S.A. recognition of trade unions by employers has been compelled by laws of States, instances are not wanting to show that they are obeyed in letter alone. It is high time for us to follow either British tradition or the American example. The apposite remarks of Royal Commission on Labour in India deserves a note:—"Recognition may mean much but it may mean nothing. No law can secure that genuine and full recognition which we desire to see." Our laws follow the pattern of foreign enactments on the subject and it is vitally necessary to create conditions in which their full value can be realised. The mere transplanting of foreign laws without conforming to the peculiar needs of the country will not bear much fruit.

In India, workers have no belief in the settlement of disputes through complicated machinery sponsored by the State. The reasons are obvious. Firstly, they have no or little faith in Government intentions and machinery, which in their opinion has bias in favour of capital. Secondly, the poor organisation of labour puts them in a serious disadvantage in the presentation the of

case in a systematic manner. Consequently, any attempt to force them to pin their faith in judiciary is bound to be futile.

Finally, it follows logically that the attainment of peaceful industrial relations does not rest with legislation. The relations between men and management are essentially human relations. Law libraries are full of statutes and court decisions on the conduct of married life. But no statute and no court decisions ever made a marriage happy and successful. This is just as hard and just as impracticable, to prescribe iron-bound rules of behaviour in dealings between labour and management as it would be to prescribe them for husbands and wives." (Mr. J. R. Steelman in 'At the Cross Roads') The solution lies in co-operation, mutual good faith, and appreciation of the vital role of the

other in national prosperity. Peace and harmony cannot be guaranteed by legislation, i.e. through Govt. interference alone. It lies in all-round development of the masses in political, social and economic sections.

One is apt to note down a word of caution in this respect. No amendments or additions to the labour code is going to help in maintaining industrial relations healthy, for long. It is the successful implementation of labour legislation that finally counts. It is high time now to take stock in that direction. Amateurishness in conglomeration of Acts and Ordinances is bound to dry up the faith in their intentions, which tend to be belittled by and by. The State policy of new bills before the ink is dry should be scrutinised in the right spirit, lest the labour-capital relations are bound to be gloomy.

Blot Out
Organizations
Failures



FOR SERVICE IN LEADERSHIP - GENERAL-MANAGEMENT
C. Sivajee Rao, Business Consultant
BEZWADA.

EXPENDITURE BY MINISTRIES

It now transpires that the Ministries at the Centre had spent 128 lakhs in 1949-'50 without going to the Standing Finance Committee for initial approval, and 90 lakhs in 1950-'51 in a similar way. The Ministries have been warned not to repeat this procedure.

FOREIGN CAPITAL IN INDIA

So far 634 lakhs have been invested by Foreign Capitalists during December 1949—June 1950.

'KOREAN WAR' BEFORE THE INDIAN PARLIAMENT

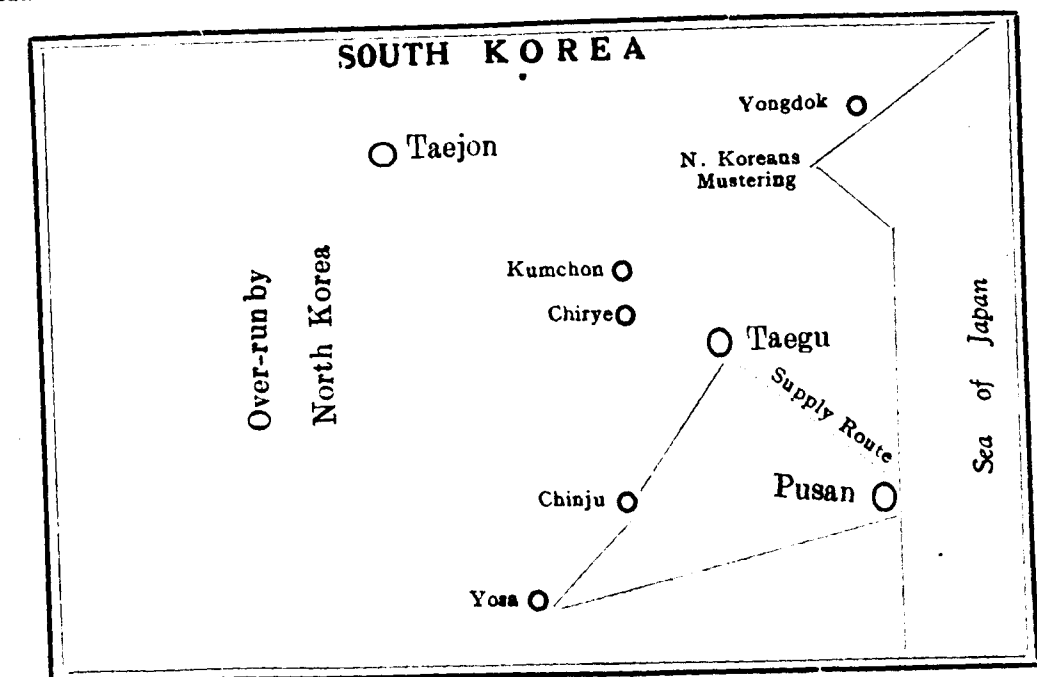
Pandit Nehru has justified the stand taken by India, in joining the U.N.O. resolution. But the world Situation is, according to Panditji, 'hanging by a thin thread.' The only question is whether the War could be stopped even at this late hour, but indications are that 'no one looks at the other side'.

Editor's Jottings

KOREAN WAR

With practically 4/5ths of South Korea in the hands of Communists, the question is whether peace is near at hand. The Security Council is however having M. Jacob Malik, the Russian Representative, in the Presidential chair. Mr. C.R. Attlee had declared in the House of Commons that unless the North Koreans moved back to the 38th parallel,

there was no question of peace-move by the United Nations. So far as India is concerned, her support of U. N. O. Resolution had been practically demonstrated by her offer to send a Field Ambulance Unit and a small surgical unit from her regular Defence Forces. 8 more countries have offered practical help to U.N.O. Forces and U.S.A. is thus bound to carry on to the bitterest end.



Now Taegu - Yosa - Pusan is facing a grim fight.

Progress of the War

The North Korean Forces have captured Chinju, 60 miles from Pusan which is the main supply port in the South. Chinju is the gateway to Pusan.

In the central Taejon-Taegu sector, battle is going on for Chirye, 14 miles south of Kumchon.

The latest battle positions in Korea, according to the latest information, are:—

South: Powerful Tank Forces spear-heading the North Korean drive towards Chinju, 60 miles west of the supply port of Pusan. American and South Korean Forces were resisting.

Centre: In a twin thrust on this sector the Northerners continued their advance on both sides of Kumchon.

To the South, the town of Chirye has changed hands several times. The latest report from American Eighth Army Headquarters was that the Americans held it again. This Communist drive is apparently intended at cutting the American supply line from Kumchon to Taegu. North of Kumchon, the Communists have made fresh advances to the high ground, east of Pongdon.

EAST: The South Korean 23rd Regiment is continuing its counter-attack on the Communist-held port of Yongdok.

NORTH: The Front is quiet. North Koreans are still blocking the road between Yechon and Andong, to the East and South-West of Hamchang.

U. S. A's attitude towards Formosa seems to be the deciding factor. She has already communicated to the Communist China about her no-annexation policy intentions regarding Formosa. The problem bristles with difficulties and we hope and pray that the Korean battle be purely a local one not to burst out into a world war.

Industrial Plans in Private Sector

The Delhi Conference of prominent Industrialists convened by the Hon. Minister for Industry and Supply, last week, has examined the urgent needs of Industries in Private Sector, such as methods for rapid industrialisation and development, rationalisation, maximisation of production with the present installed capacity, capital requirements, and industrial housing. While the Finance Minister would examine how best Banks and Insurance Companies could help the Industries, the other subjects would be left to the Planning Commission. Also a Committee of the Industrialists will be set up to carry out the various plans that would be prepared by the Govt. But the essence of the problem is—least interference from the Govt. but with maximum State aid properly coordinated in all matters concerning industries.

Food Controls

The Hon. K.M. Munshi's analysis, advice and cajoling with respect to food position, added to the strength of his conviction regarding the necessity of all controls to continue *ad infinitum*, have made the common citizen in the land to think and brood seriously of what his future would be. Assuming the food position very bad owing to famines here and to famines there, and owing to increasing difficulty of imports added to the admitted failure of "grow-more-food campaign" on which crores of rupees have been sunk so far, is the continuance of inefficient controls the only and sole remedy? Statistics shows that there is only a 7% deficit in total production of food grains, and we know that the Govt. are doing their very best to make up this deficit. But the only reason so far we have heard for the continuance of control, is that prices would soar so high if it was removed, as limited stock would be taken advantage of by the traders to increase the prices. But do the Govt. imagine for a moment that rationed supply and distribution in the Union are

going on alright? Do the Govt. of India, from their heights, feel that their 12 oz. per capita ration (of which 7 oz of rice only to rice-eaters is given) has not encouraged black-marketing in the country? If, as it is argued, that the need for controls has nothing to do with the machinery for administering controls, do the Govt. feel so incompetent that they cannot improve their control-machinery?

The solution of the problem is that, if the Govt. do not have a satisfactory machinery to exercise controls, they should ensure supplies to the deficit areas only and remove controls from surplus ones. Controls are essentially a war-measure, not intended for peace-times, and in the matter of control of food grains with only a 7% deficit, it is the duty of the Govt. to arrange supply of this 7% i. e. about two million tons only, and pass it on to the deficit districts of the Union. Any amount of academic argument from Ministers that controls were necessary would not satisfy the common man who had been terribly suffering for now nearly 10 years with 7 oz and 8 oz of rice or wheat and had made him purchase in the black-market. Thus, the evil of control has been eating into the morals of society and if the Govt. do not remove them by stages, now and ever, the problem would get more and more complicated.

Food Position in Madras

While Bihar and West Bengal are terribly suffering for lack of supply of food grains, we learn that owing to lack of transport facilities, the deficit districts like Chengelpet, North Arcot, Coimbatore, Salem, Malabar and South Kanara are not getting their allotted quota of food grains, and that people in these Districts are actually starving, eating roots in place of grains. It is highly deplorable that the Govt. having taken the responsibility to supply food grains to deficit areas should now plead this excuse or that, e.g. that transport is getting difficult, and that procurement in Godavari and Krishna is slow and so

on. The Hon. Munshi painted last week a rosy picture of what the Govt. was doing on the matter, and the Madras Food Minister had been equally sanguine. In most of the deficit areas, however famine conditions are prevailing, and even supply of 'free rice' may have to be arranged to prevent a debacle that is impending.

The President's Address to the Parliament

The Address specially dealt with foreign affairs—India's part in Korean War, and the Prime Minister's visit to S.E. Asian Countries. The work of Planning Commission, Food, Position, Refugee problem, and trade balance have however been briefly reviewed. But what we missed in the Address was the future policy of the Govt. to combat the ever increasing discontent regarding 'controls,' and enunciation of schemes for rapid industrialisation both in Private and Public Sectors, which can alone solve the Economic Problem of the country. Food position too is fast deteriorating and no standing solution is at sight.

Conference of Socialists in Madras

The Socialists who have always shown their eagerness to act as an opposition to the Indian National Congress but without taking part in the actual administration have yet to produce their cards where they differ from the policy of the Congress. They have always been advocating immediate nationalisation of all basic industries, while they have no objection to private enterprise continuing for some time. But then the Congress too holds the same view, and high-ranking leaders have been advocating 'nationalisation' though not for the immediate present. Regarding labour problems, the Congress seems more progressive than even the Socialists. With regard to the two Labour Bills before the Parliament, the Socialists would not have them, merely because "the power to strike"

has been minimised in the proposed legislation. We feel that there is not much to choose between the two progressive wings of democratic parties in India, but for certain psychological differences. But our only complaint is that those with a stake in the country seem to have no place in both the leftist ranks.

De-limitation of Constituencies in Madras—Official Resolutions

The Madras Govt. have recommended to the Madras de-limitation Committee of the Union Parliament that *Single Constituencies* should be the general rule, except where Scheduled Castes and tribes were involved, two seats should be ear-marked, one for general and one for Scheduled Castes or tribes. In the case of the Legislative Council, there will be not less than 2 seats in each Constituency, with the method of proportional representation and single transferrable vote.

From British Information Services

Hydrogen Bomb Manufacture

The U. S. A. Congress is to sanction a multi-million dollar fund to make Hydrogen Hell Bomb. The Atomic Energy Commission is engaged in preparing an estimate. About 200 million dollars would be sought at the first instance.

Atomic Power Unit for Ships

BRITISH GOVT.'S CONTRACT WITH A PRIVATE FIRM

The British Government have placed a contract with a private engineering firm for drawings and castings of a prototype atomic power unit which could be used in large ships and warships.

Sir John Cockroft, Director of the Government's Chief Atomic Research Station at Harwell, Berkshire announced last month

that some of Britain's leading atom scientists were studying the feasibility of using atomic energy to drive ships, including submarines.

The Ministry of Supply also published in June a cut-away plan of a scientist's impression of the design of an atomic propelled submarine.

Admiral of the Fleet Lord Fraser said at Amsterdam earlier this year that British atomic-driven submarines were in the experimental stage.

Estimates indicated that the weight of the large ship's propulsion machinery, developing perhaps 100,000 horse power would be increased by about 1000 tons, if powered by a nuclear reactor replacing the traditional methods of producing steam for turbines. The additional load would be about equal to the oil fuel consumed by one of the "Queen" liners during 36 hours running—therefore, at least in theory advantages would be with nuclear ship.

State Trading in India

Dr. Deshmuk's Committee has recommended the creation of a semi-official corporation for trading in food, coal, steel, cotton, fertilisers and Cottage Industrial products.

Import of Art Silk Yarn

The quota for established importers for July-December 1950 — has been liberalised by an extra 10%.

New Industries in India

Henry Ferguson of India Limited is to produce tractors for agriculture, and the factory will be located near Tambaram (Madras.)

Oldham and Company of Manchester is arranging manufacture of Storage Battery in Madras from next year.

News of Interest

Colombo Commonwealth Committee Conference

The Technical Advisory Committee which met at Colombo have considered schemes from various Commonwealth Countries, which will now go to the London Conference in September. An Aid Bureau has been constituted. India has applied for technical personnel and experts for her major agricultural and industrial schemes, with Irrigation Schemes topping the list.

Fountain Pen Ink Industry in India

This Industry is to get protection with 37½% *ad valorem* protective duty (instead of revenue duty as at present). The Govt. will further arrange for research, apart from procuring modern machinery, and appliances.

224 Model Agricultural Farms in Madras State

An active move to bridge the gap between the Laboratory and the Cultivator has been envisaged by the opening of as many as 224 model farms in Madras State — with all modern technique, improved seeds, manures and cultivation initiated in those farms.

Another Experiment in Language Study in Secondary Schools in Madras

The Govt. of Madras have introduced another scheme from 1st Form onwards from this year. Part I of mother-tongue or regional language is made compulsory and so also English. Part II of mother-tongue or regional language can be substituted by a classical language or another South Indian Language. Hindi is made optional with a craft or an approved study substituted for it. This should satisfy all parties for the present.

News Tit-Bits

Sir V. T. Krishnamachari is to enquire into the purchases of pre-fabricated Swedish huts and roofing from a Swedish firm, which were damaged during last rains in New Delhi.

The President of the U. S. A. has given an assurance of "no atom bombs in the Korean War".

Prices of Rubber have been revised in Groups V and VI, as suggested by the Rubber Advisory Committee.

A circular has been issued by the Director of Controlled Commodities, Madras, that time-barred cloth or yarn in loose condition not sold by June 30th should be stamped TCB, or the Collectors of Districts may give exemptions to individual dealers to sell them.

After seven months, Soviet representative, Jacob Malik, has taken over the Presidentship of the Security Council. He moved for admission of Communist China into U. N. O. and Security Council, which was however defeated.

Following the announcement of U. K. for 'Free trade in tea' from April 1951, steps are being taken to make Calcutta a world tea market.

Mileage Coupons in M. & S. M. Railway with no Fare Concession

Coupons for 3000 miles for I and II class passengers are being issued to firms (including travel in foreign Railways) at Rs. 375/- and Rs. 218/12 respectively. If a firm has more than four representatives, one book for every four should be purchased.

W.C.I.A. AT WORK

Day-to-Day Problems

—References from W. C. I. A.

1. Bottle-neck of Railway Transport:

Since supply of wagons for booking tiles, timber etc. from Feroke, Calicut and Kallai is unsatisfactory, the representatives of the Association met the Railway Officers and discussed their problems. The authorities have agreed that pending movement of food-grains from Cochin port, wagons would be made available for transport of tiles, timber etc. It has also been suggested that as a temporary measure *open wagons* may be used for transport of tiles.

2. Lack of Yarn Supply:

Yarn supply to hosieries and hand-loom in Malabar continues to be grave. Unless the Government arrange steady supplies and distribute them properly, most of the factories may have to close down.

3. Electric Supply to Calicut and Cannanore:

Though additional 500 KVA (making up 2000 KVA) had been sanctioned for Calicut and so also for Cannanore, the Industries for which sanction had been accorded have not had their connections yet. It is unfortunate that the Govt. machinery are very lethargic and do not carry out their intentions quickly.

4. Representations:
- (a) The W. C. I. A. would take part in Steam Boiler Users' Conference to be held in Madras in October.
 - (b) The W.C.I.A. have asked for representation in the new Madras Legislative Assembly.

5. Exemption of Factories from Section 16 of Factories Act:

While the Government have exempted factories which do not conform to the sizes of buildings for next three years, a little imagination would show that either the factories which satisfied the old Act or those coming for the first time under the New Act could not have their defective structures demolished without incurring a heavy loss even after three years. The Govt. should therefore grant permanent exemptions in the case of existing structures.

6. Research Laboratory for the West Coast:

Pending a Chemical and Analytical factory for the West Coast, the Association have recommended that the Kerala Polytechnic at Calicut be utilised for testing and standardising tiles, timber, Handloom, etc. and for getting certificates on payment of a small fee.

The Hon. H. K. MAHTAB, Minister for Industry and Supply, Govt. of India has agreed to preside over the Second Annual General Body Meeting of the W. C. I. Association to be held in August or in the beginning of September 1950.

Bill to Amend Malabar Tenancy Act

(Introduced in Madras Legislative Assembly on 1st Aug. 1950)

Fair Rent and Fixity of Tenure Proposed

A Bill further to amend the Malabar Tenancy Act, 1929, has been published by the Madras Government in a *Gazette Extraordinary* issued last week. The operation of the amending Bill will extend to the entire district of Malabar, the Gudalur Taluq of the Nilgiris, and some villages of the South Kanara District.

The salient features of the Bill include the grant of fixity of tenure, increased share to the cultivating tenant in the produce, and provision to fix fair rent for all holdings.

STATEMENT OF OBJECTS

The statement of objects and reasons says:

The Malabar Tenancy Act, 1929, has conferred a qualified fixity of tenure on cultivating verumpattamdars, and the right to demand a renewal of their leases on kanamdars, kuzhikanamdars, and customary verumpattamdars. These tenure holders can be evicted from their holdings only if they wilfully deny their landlord's title or commit acts of waste, or collusively allow strangers to encroach on the holding, or if the landlord requires the holding bona fide for cultivation or for building purposes. Cultivating verumpattamdars, can also be evicted if they fail to pay rent or to furnish security for the due payment of rent and kanamdars, kuzhikanamdars and customary verumpattamdars, if they fail to obtain a renewal of their tenancy.

As far as tenants of kudiyruppus (homesteads) are concerned, the Act has given them the right to purchase their holdings, when sued in eviction, if they have been in continuous occupation for not less than 10 years. The Act has also prescribed the rates of fair rent in respect of wet garden and dry land, and has provided for the determination of such rent by the Court in respect of the holdings of cultivating verumpattamdars and cultivating kuzhikanamdars.

DEFECTS

The Malabar Tenancy Act, 1929 however, proved to be defective in certain respects. In 1938, therefore, the Government gave notice of a Bill to amend that Act. But the Bill was not actually proceeded with. In July 1939, the Government appointed a Committee (the Malabar Tenancy Committee with Mr. K. Kuttikrishnan Menon as Chairman) to study the nature and effects of the land tenures prevailing in Malabar district, and in the adjacent areas where similar tenures are prevalent, and to suggest necessary legislative measures for the regulation of tenancies and similar relations in those areas.

The Committee submitted its report in 1940. The Government obtained the remarks of the Board of Revenue, the High Court, and certain other Heads of Departments on the Committee's report, but further consideration of the report was postponed owing to the War. In 1946, the Government again took up the report, and asked the Special Officer for Land Tenure Systems, who was then functioning to examine the recommendations of the Committee.

The present Bill is intended to implement the proposals so modified. It also makes certain consequential amendments in the Malabar Land Registration Act 1895 the Malabar Compensation for Tenants' Improvements Act 1899, the Gudalur Compensation for Tenants' Improvements Act, 1931, the Madras Marumakkattayam Act, 1932, and the Madras Aliyasantana Act 1949.

ABOLITION OF RENEWAL SYSTEM PROVISIONS OF THE BILL

The Bill abolishes the system of renewals and renewal fees, gives fixity of tenure to all cultivating verumpattamdars, whether their holdings include wet land or not, and extends such fixity to all customary verumpattamdars, kanamdars, and kuzhikanamdars. It takes away the right of the landlord to demand of the cultivating verumpattamdar any advance of rent or security for its due payment.

The Bill increases the cultivating tenant's share of the produce. In the case of ordinary wet land, the tenant's share is increased from one-third to one-half of the net produce.

For this purpose, net produce has been defined as meaning the gross produce less the cultivation expenses, which have been fixed at 22 Palghat paras per acre, instead of at 2½ times the seed required. The Settlement Authorities will have freedom to fix any other quantity of paddy as cultivation expenses in exceptional cases. In the case of land cultivated on the punjakol or kaipad system, the fair rent is fixed at one-fourth of the gross produce. In the case of wet land situated in the Wynaad taluk, fair rent will be one-twentieth of the gross produce if the land has been converted into wet by the tenant's labour, and one-twelfth of the gross paddy produce in other cases.

IN CASE OF DRY LAND

The fair rent of all holdings, including kudiyruppus, ulkudis, and kudikadappus will be fixed, by Rent Settlement Authorities whose decisions will be subject to an appeal to a prescribed authority. Every cultivating tenant will be entitled to pay the fair rent so fixed or the contract rent, whichever is less.

The fair rent will have to be paid in the case of garden or dry land only in money, but in the case of wet land, it may be paid either in kind or money at the tenant's option.

Clear and specific provision has been made for the manner in which the assessment and the local cesses are to be borne as between

the landlord and tenant. Generally speaking, these will be borne by them in equal shares. In some cases, the fair rent payable to the landlord specifically includes the assessment of a portion of the assessment, and in these cases, the landlord will be liable to pay the entire assessment to the Government.

RENT REDUCTION

There will be a proportionate reduction in the rent payable by the intermediary to his landlord, in cases where by the operation of this measure, the rent, which the intermediary is himself entitled to receive from his tenant becomes reduced, and the rent which the intermediary has to pay to his landlord exceeds one-half of such reduced rent.

A tenant who has been regularly paying his rent within the time allowed, without default, is given the right to purchase the rights of the intermediary immediately above him, if such intermediary has continuously committed default in the payment of the rent due by him to his landlord for three consecutive years.

If within a year of the passing of this Bill or such further time as may be allowed by the Collector, the tenant pays to his landlord the entire rent payable (under the Act as now amended) for the six agricultural years beginning with the year 1944-45, the tenant is not liable to pay to his landlord the arrears of rent, if any, due in respect of any prior period.

The Bill gives persons interested in any land the right to apply to the Rent Settlement Authority for a declaration that a transaction purporting to be a mortgage of that land and entered into on or after January 1, 1916, is not, in fact, a mortgage, but a transaction by way of kanam, kuzhikanam, verumpattam or other lease, and makes the decision of that authority final subject only to a right of appeal to the District Judge as *persona designata*.

The State Government and officers authorised by them are given power to direct the owners of waste land, to lease them to such

persons, for such period and subject to such conditions as the Government or their officers may specify.

PROVISION FOR EXTENSION

The Madras Tenants and Ryots Protection Act, 1949, will be extended with immediate effect to the Gudalur taluk in the Nilgiris district and the villages in the South Kanara district specified above. That Act will, however, stand repealed with effect from a date notified by the Government which will be after fair rent has been fixed by Rent Settlement Authorities in accordance with the provisions of this Bill.

All pending proceedings, whether stayed under that Act or under this Act, will thereafter proceed under the Malabar Tenancy Act, 1929, as amended by this Bill. No decree or order passed before the date aforesaid to be executed unless, and except in so far as it is in conformity with the provisions of the Malabar Tenancy Act, 1929, as amended by this Bill. The tenant or kanamdar who has parted with the possession of his holding in execution of a decree passed on or after July 1, 1942 at the instance of a landlord on the ground that he requires it *bona fide* for his own cultivation or building purposes, will be restored to possession if the decree would not have been passed, if this Bill had been then in force.

FIXATION OF FAIR RENT

Clause 7 fixes the fair rent payable in the case of dry land converted into wet by the tenant's labour at one-fifth of the net produce, or the annual wet assessment plus twice the assessment which would have been imposed if the land had been dry, whichever is higher.

Clause 8 specifies the fair rent payable in the case of wet land not falling under Clause 7.

Clause 9 inserts two new Sections 6-A and 6-B in the main Act.

New Section 6-A fixes the fair rent payable in the case of wet land situated in

the Wynaad taluk of the Malabar district and the Gudalur taluk of the Nilgiris district (1) at one-seventieth of the gross produce plus an amount equal to the annual assessment and local cesses, if the land had been converted into wet by the tenant's labour, and (2) at one-twelfth of the gross produce plus an amount equal to the annual assessment and local cesses in other cases.

The New Section, 6-B, provides that, in the case of land registered, as double-crop land, the produce shall be calculated on the basis that only a single paddy crop has been raised on the land, if it was converted from single crop to double crop at the tenant's expense, and that two paddy crops had been raised if they were so converted at the landlord's expense. In the former case, the tenant will be liable for any additional assessment and local cesses levied by reason of the conversion and also for all special charges levied by the Government.

Clause 11 makes special provision in regard to the fair rent payable in respect of dry land on which pepper or groundnut is cultivated or in which fugitive cultivation takes place. Where pepper is cultivated as the principal crop, fair rent will be payable only for the twelfth year after the planting of the crop and for every sixth year thereafter, the rent being the entire pepper produce of the land for the year in which it is payable. Fair rent in the case of land on which groundnut is cultivated will be one-tenth of the gross groundnut produce, or an amount equal to three times the highest assessment payable in respect of any dry land in the district, whichever is higher. In the case of land in which fugitive cultivation takes place in any year, the fair rent will be an amount equal to the assessment imposed for that year, the tenant paying in addition the assessment and local cesses direct.

Clause 12 makes special provision in respect of the fair rent payable for kudiyruppus. Where the extent of a kudiyruppu is less than 25 cents or up to 25 cents

in cases where its extent is greater, the tenant can pay the fair rent under sections 5 to 8, or under section 9(a) whichever is less.

ARREARS OF RENT

New section 9—A fixes the fair rent payable in the case of ulkudis and kudikadappus at an amount equal to twice the annual assessment payable in respect of the area thereof.

Sec. 9—B provides for the determination of fair rent in every case by the Rent Settlement Authority, and for appeals against the orders of such Authority.

Sec. 9—C makes fair rent due under the Act payable, in the case of wet land either in kind or in money at the tenant's option, and in the case of garden or dry land, in money only.

According to sec. 9—D, arrears of fair rent will bear interest at $5\frac{1}{2}$ per cent per annum.

Sec. 9—E provides for the prescription of the period during which the fair rent determined by the Rent Settlement Authority should remain in force, and specifies the circumstances in which it may be revised within that period.

Clause 14 makes a mere formal amendment.

Clause 15 declares that every cultivating verumpattamdar and every customary verumpattamdar, kanamdar, kuzhikanamdar, tenant of a kudiyruppu and holder of an ulkudi or a kudikadappu shall have fixity of tenure in respect of his holding, and that he shall not be evicted therefrom except as provided in the Act.

Clause 16 omits sections 11 to 13 of the main Act which relate to applications to the Court for fixing the extent of the holding, fair rent, etc., and the procedure to be followed in respect of such applications; under the Bill, fair rent can be determined only by the Rent Settlement Authority.

PERMANENCY OF TENURE

Clause 17 amends Sec. 14 of the main Act. The amendment restricts the scope of Clauses (5) and (6) of that Section (which

relate to the landlord's right of eviction on the ground that the holding is required for cultivation or building purpose) by making them inapplicable to (1) cases where the tenant or members of his family have been in the continuous occupation of the holding for not less than 12 years, and the eviction would reduce the extent of the land in the occupation of the tenant and the members of his family to less than five acres, and (2) cases of holdings held by a sthani or held in trust for the purposes of any temple, mosque, church or other place of public religious worship or of any other religious or charitable institution or endowment. Further, the right to evict under clauses (5) and (6) of Sec. 14 is to be exercised only during the next five years. The existing clause (7) of Sec. 14 is deleted and in its place a new Clause (7) is substituted enabling temples, mosques, churches and other places of public religious worship to evict a tenant from any holding required for their extension. Kudiyruppus, ulkudis and kudikadappus have been excluded wholly from the operation of Sec. 14.

Clause 18 amends Sec. 15 of the main Act so as to provide that if within three years of the eviction the landlord fails to construct the building or to extend the temple, mosque etc. for the construction or extension of which the eviction was obtained, or transfer the land on any kind of lease or mortgage or on kanam, kuzhikanam or verumpattam, the cultivating verumpattamdar shall be entitled to sue for restoration of possession.

RENEWALS

Clause 19 repeals sections 16 to 19 of the main Act which relate to renewals and renewal fees.

Clauses 20 and 21 amend Sections 20 and 21 of the main Act which relate to the eviction of customary verumpattamdars, kuzhikanamdars, and kanamdars on the same lines as Sections 14 and 15, which relate to cultivating verumpattamdars and have been amended by Clauses 17 and 18.

Clause 22 repeals Sections 22 to 27 of the main Act which relate to the subject of the renewal of tenancies.

Clause 23 lays down that every cultivating tenant of a holding, every tenant of a commercial site who is entitled to fixity of tenure, every tenant of a kudiyruppu, and every holder of an ulkudi or a kudikadappu shall be liable to pay to his landlord fair rent or contract rent whichever is less. Where the contract provides for the rendering of personal service in addition to or in lieu of rent, the tenant may either pay the fair rent and cease to render personal service or pay the contract rent and render personal service; but once the former option is exercised, it will be final.

Clause 24 specifies the cases in which and the extent to which the assessment and local cesses are to be borne by the landlord, and by the tenant respectively.

Clause 25 inserts new Sections 25—A and 25—B in the main Act. New section 25—A gives the tenant a right to deduct from the rent any assessment or cesses payable by the landlord but recovered from the tenant.

New section 25—B lays an obligation on the landlord to remit the whole or a proportionate part of the rent where the assessment is remitted in whole or part by the Government.

Clause 29 repeals sections 30 and 31 of the main Act, when deal with the revision of rent and fixing of fair rent by the Court as such applications will not lie to the Court hereafter.

Clause 27 makes it clear that a tenant who pays fair rent shall not be liable to render any personal service to his landlord.

Clause 28 introduces two new Sections, 32-A and 32-B in the main Act. New Section 32-A provides that in cases where by the operation of this measure the rent payable to an intermediary becomes reduced, and the rent payable by the intermediary to his landlord exceeds one-half of such reduced

rent, there shall be a proportionate reduction in the rent payable by the intermediary to his landlord.

RIGHTS OF THE INTERMEDIARY

New Sec. 32-B enables a tenant to purchase the rights of the intermediary immediately above him if the latter has committed default in the payment of rent due by him to his landlord for three consecutive years.

Clause 29 substitutes a new Chapter for the existing Chapter relating to kudiyruppus. Provision is made for the purchase by a kudiyruppu holder of the rights of his landlord, for the institution of suits by landlords for the possession of kudiyruppus in certain circumstances, and for compelling the holder of an ulkudi or kudikadappu to shift to a new site of equal area in the same garden or in the same revenue village, if the landlord so requires.

Clause 30 provides that the rights of the holder of an ulkudi or a kudikadappu shall be heritable but not alienable.

Clause 31 provides that in cases where the kanamdar pays fair rent, the kanathan shall be treated as security for the due payment of such rent and shall bear interest at $5\frac{1}{2}$ per cent : per annum.

Clause 32 makes consequential alterations in the period of limitation for suits for restoration.

Clause 33: The payment of the entire arrears of rent is not made a condition precedent to a valid surrender. But it has been made clear that even after a tenant surrenders his holding, he will remain personally liable for arrears of rent, if any, payable by him.

Clause 34 repeals Sec. 45 of the main Act which has become unnecessary in consequence of the conferring of fixity on all tenants.

MORTGAGE OF PROPERTY

Clause 44 substitutes a new section in the place of Section 33 of the Madras Marumakkattaym Act, 1932. The new

section makes the consent of the majority of the major members of the tarwad necessary in every case of lease or mortgage of the immovable property of the tarwad.

Clause 46 enables a tenant who has parted with the possession of his holding in execution of a decree passed on or after July 1942, under Clause (5) or (6) Sec. 20 to be restored to possession if the decree would not have been passed, had this legislation been then in force.

Clause 47 provides that if within the period specified the tenant pays to his landlord the entire rent payable by him for the six agricultural years beginning with 1944-45 under the main Act as amended by his Bill, the tenant shall not be liable to pay his landlord the arrears of rent, if any, due in respect of any prior period.

Clause 48 makes the Madras Tenants

and Ryots Protection Act, 1949, applicable to the tenants in the Gudalur taluq of Nilgiri district and to those in the villages of the South Kanara district specified in the Schedule; and also provides for the repeal of that Act in Malabar and the other areas in question with effect from an appointed day (which will be a day immediately after fair rent has been settled for the areas to which the Act will apply) and for the disposal of the proceedings stayed under that Act after its repeal.

Clause 49 provides for the stay of all suits, appeals, and other proceedings not falling under Clause 48 until the date referred to in the previous paragraph, and also for their disposal thereafter, in accordance with the provisions of the main Act, as amended by this Bill.

Our Radio Tit-Bits-II

CHOICE OF A GOOD RECEIVER

By

MR. K. V. BABU

B. Sc., Marc. DIP. (England), A. M. I. R. E., (N. W.)

Some Quizzical Ideas

In my last Radio-Bit, I dealt with *Valves* which form the cornerstone of a good reception. But the buyer of a set is perplexed with a number of other questions and also about the price of a set whether it is within his means. He asks his radio friend which receiver in the market he should buy at a cheap price — a query in the form it is put sure to embarrass even a radio expert. The buyer has usually his fads. Some of the quizzical ideas about a receiver are:—(1) a plastic-cabineted receiver is supposed to have better reception than the one in a wooden cabinet. But better reception, however, depends

largely on the ear itself. For example, the Indian orchestra with its 'Tambura' comes out better in a plastic-cabineted receiver, due to 'masking' of the ear, but the same effect can be produced in a wooden cabinet too by a suitable adjustment of radio components; (2) Again, a slanting dial in a cubical cabinet is supposed to give high reception. This bias has no foundation whatever.

Whims of the 'Ears'

Here are a few examples of a radio reception:—

- (a) We do not find much difference in a masculine speech between (1) s, sh, ch (2) soft th and hard th (3) p, b and (4) v and f.

- (b) In a female voice, sharp differences are usually shifted to a different part of the spectrum, as between (th, and d);

- (c) In music, as between hearing a 'mridangam' in a Concert hall, and hearing it from a receiver, one feels that the latter is lacking in distinctive high pitches. Also the click as the key is plucked, the slight hiss when air is blown into the Indian Flute, and the placing of the bow on the string are more noticeable in the latter. Extraneous noise not normally present in a music hall is heard sometimes, to the annoyance of the listener to a greater extent on higher pitches;

- (d) The 'sa' of Flute or the 'ri' special of Veena does not come out well in radio reception;

- (e) Then there is the question of atmospherics in general and fading on short waves.

A non-technical hearer is usually not able to detect these differences. Research is, however, on its way to improve the capacity of the receiver.

Minimum Characteristics of a good Receiver

The absolute minimum characteristics for a good reception are testable in a laboratory. Firstly, *sensitivity* of a receiver is its ability to respond even to small radio signals, to the extent a radio receiver is able to receive weak stations. The standard output of power is .05 watt in a non-inductive resistor, equal to that of a power amplifier. The standard measurable input of power is chosen as the effective value of the carrier to be induced into a standard aerial to develop a standard output with the carrier modulated at 30% of volume at a frequency

of 400 cycles. Next comes *selectivity* i. e. the ability of a receiver to discriminate against unwanted stations and lastly, *fidelity* which represents the extent to which a receiver reproduces the radio signal without variations for different pitches.

The following table gives results for known receivers:—

<i>Sensitivity</i>	<i>Selectivity</i>	<i>Fidelity</i>
For 650 KC-8 micro-volts	For 5 Kcs-10	For 100 cycles-8
" 800 " .7 "	" 8 Kcs-100	" 400 " 1

The statement shows that the sensitivity of a Receiver is its ability to pick up as low as seven micro-volts signal from a station of 800 Kcs. The selectivity of the set is that it is able to cut out, for example, upto 10% of volume when Madras Station is properly tuned, signals from Madras varying 5 Kcs. Fidelity of the same set, say, for the Madras Station is that the response is straight, i.e. same as it is transmitted. But at lower frequencies below 100 cycles and frequencies above 5000, actual outputs will be different. Again selectivity requires extra equipment which increases the cost. Sensitivity and fidelity are questions of design not involving any extra equipment.

Miscellaneous Considerations

Again miscellaneous considerations for the choice of a receiver are:—(i) the type of automatic volume control — the purpose of this being to keep the carrier voltage constant at the detection point. This is done by joining the grids of radio frequency and intermediate frequency sections of the receiver and biasing them negative. The other method is to apply less negative bias to the last intermediate frequency stage. Still another method is to use a separate automatic control

valve. A delayed automatic volume control can be obtained, if the anode of the second A. V. C. valve is connected to the A. V. C. line and connecting cathode to a point negative to the ground. Then there are other methods also as for example in a very cheap receiver, we have only manual volume control; (2) Some sort of compensation such as tone control is necessary to correct the tendency of the ear to make low notes appear abnormally weak, when lower than normal volume levels are reached as also the low notes appearing abnormally loud when the sound is above normal level (3) An effective tone control is a proper resistance capacity combination to discriminate against high frequencies (4) A tuning indicator incorporated to facilitate proper tuning is of the following types:— a direct current meter through which flows rectified output; a shadow band indicator varying its shadow width with tuning; a luminous band sector with the band increasing with tuning; aural indication as to when the signal is loudest; other band width adjustments: (5) avoidance of distortions as distinct from atmospherics; one type called *the frequency distortion* results in the misarrangement of intensities at different pitches; the original components in a signal being combined in different phases at the receiving end. This is called *selective fading*. In a commercial receiver, there is no remedy for the above, except by an elaborate aerial system. Even with this aerial, the signal may be poor with waves of 90° difference in polarisation. During magnetic storm, short-wave signals are reduced in strength and the field strength on longer

waves goes up abnormally high. Some figures are given below:—

Station wave length	Normal field strength	Field strength during storm
19 m	45	20

In addition to this, solar eclipses tend to fade out short-wave signals. (6) Atmospherics:— This is caused by thunderstorms and electrical agitations. It is severe in medium waves, common in the tropics, near mountainous regions and in the summer. It is also intense during nights. The remedies for items 5 and 6 are still a subject-matter of high research. You can ask your dealer what sort of remedy is incorporated in the Receiver, which he is selling. (8) Cross-talk interference is either due to hetero-dyne action of two signals having difference in frequency within the broadcast band or due to the unwanted signals being heard as inter-position on the tuned station during its non-modulation period, if both signals have adjacent carrier frequency. A variable mu tube remedies this defect. (8) Alternating current hum is suppressed by a push-pull amplifier, a filter choke in conjunction with a hum coil, by carefully placing grid wires, and by other methods. The cheapest is the third and the costliest is the first. (9) Noise due to Thermal agitation or shot effect - this is the noise we hear with a disconnected aerial and the set is on with no signal but on resonance or shorting input tuned circuit. This defect is due to defective manufacture of radio components. (10) The problem of suppression of noise in a car-receiver consists in making adequate provision for the removal of (i) ignition noise and (2) extraneous noise entering the receiver through the generator, etc. but this is a

big subject by itself. (ii) Models of receivers are available for avoidance of Acoustic feed back (12) In a high fidelity receiver special features are used to increase the range of modulation width with no unequal amplification. For the high price that you pay for such a receiver, no justification could be found in terms of a better design or more functional element; (13) The output of a receiver and detector carrier input level are also important (14) The life of a receiver depends on the life of its components generally. If the quick deteriorating parts are replaced during the servicing of a receiver, the receiver can be made to have a further lease of life. (a) The wooden cabinet is to be housed in a dry place with insect-proof painting. A wooden cabinet though

cheaper has a shorter life. (b) the bent chassis of plated sheet iron has to be protected against rust (c) The leads are to be short with the critical leads arranged, irrespective of the length to avoid hum trouble.

(d) cheapness in price in a receiver is due to the use of carbon resistors and tubular cardboard cover condensers. Electrolytic condensers are only among the few parts of a receiver costing more than those mentioned above. The radio frequency coils, the high frequency coils, the intermediate frequency coils, etc., also make up the cost of a receiver. The tuning condenser and valves are also some costly items. A tapped coil can be used to cheapen the cost.

Thus here is an analysis:—

For an expensive set	Common to Expensive and Cheap sets	For a cheap set
1 High selectivity	1 Type of A. V. C.	1 Output
2 Number of weaker stations receivable in the same band	2 Type and shape of Cabinet	2 Sensitivity
3 Range of modulation without distortion	3 Distortion	3 Carrier level at detector
4 Automatic frequency system	4 Repair facilities	4 Size and design of coil
5 Bass compensation	5 A. C., D. C., or Universal	5 Gain in high frequency stages
6 High degree of faithfulness of reproduction		6 Construction enabling acoustic feedback suppression
7 Levelling up of intensity variation		7 Some selectivity
8 Tuning indicators		8 Use of volume expander
9 Noise level		9 Fidelity
10 Portability of receiver		10 Hum level
11 Masking		11 Availability of spares

These factors go a long way in helping to choose a good set. The general considerations are however (i) Reception (2) AC, DC, or Universal (3) Portability (4) Availability of spares (5) Repair facilities (6) Good output (7) Tuning facilities, and (8) initial cost.

Lastly, the aesthetic and psychological aspects in the purchase of a Receiver are only subjective.

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KASHMIR DISPUTE

Friendly talks between Prime-Ministers of India and Pakistan helped by Sir Owen Dixon's equable temper are signs of 'the bright horizon' in Kashmir Sky.

King Leopold of Belgium has agreed to abdicate immediately.

Soviet move to end Korean War

At the Security Council with M. Jacob Malik as President, Chinese representation and Korean settlement are being discussed.

Korean War

The Communists are pushed back towards Chinju, and Yangdok recaptured by South Koreans.

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The W. C. I. Association propose to publish a Directory of Indian Manufacturers which would form a supplement to this journal, wherein a short descriptive account of their Industry and Establishments would be included. New Industries to be started would also find a place. A small fee of Rs. 5/- would be charged for each insertion from a member of W CIA and Rs. 10/- from a non-member.

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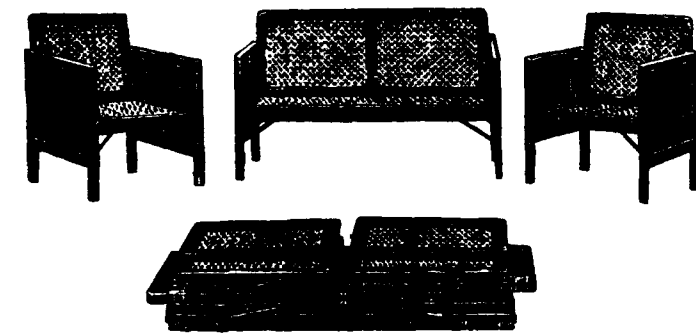
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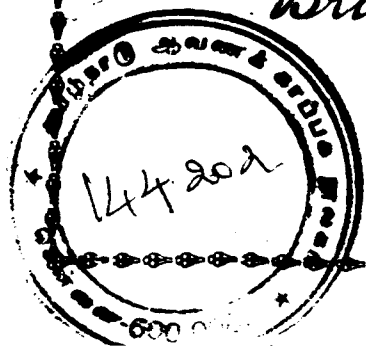
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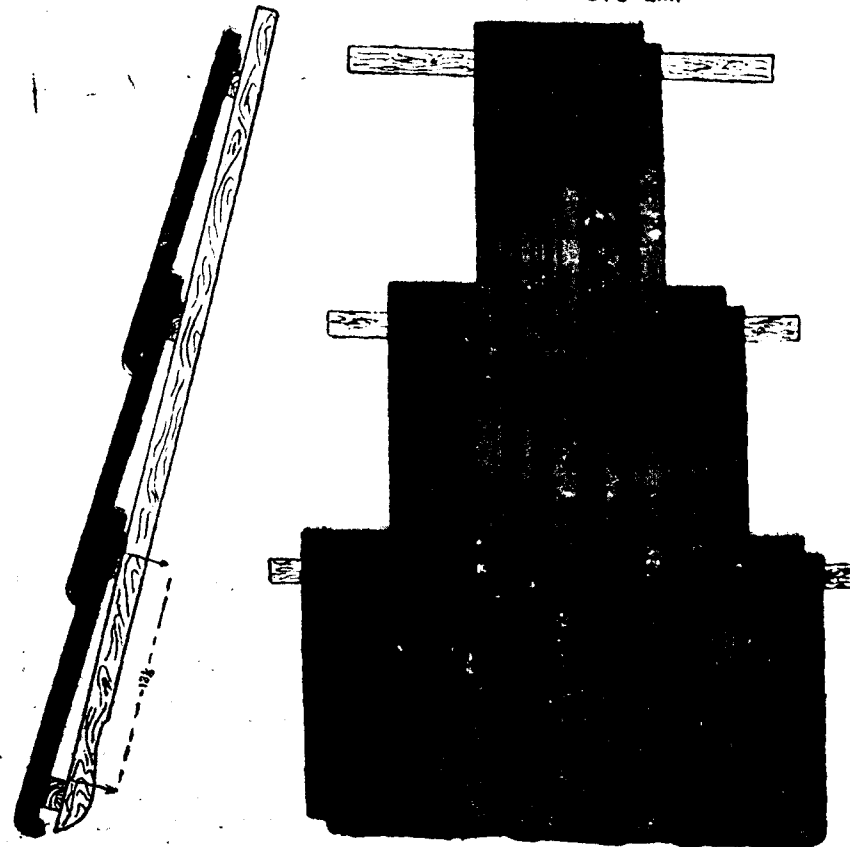


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Edited and Published by Rao Bahadur M. VAIDYANATHAN M. A.,
Secretary, The West Coast Industrialists' Association, Calicut, on behalf of the Association.
Printed by S. K. K. AS THE PRESS PRINTING HOUSE, MALABAR.