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Indian Finance

Established 1928

ANNUAL
&
YEAR-BOOK 1959

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Indian Finance is published weekly on Saturdays by Indian Financial Journals Private Limited from 116 Lower Circular Road, Calcutta. All contents copyright 1960 by Indian Financial Journals Private Limited. Reproduction in whole or in part or in any form is strictly prohibited. Prior permission in writing may be obtained.

Subscription rates: (Inland) Rs 48 per annum, Rs 25 for six months. (Foreign) Rs 55 per annum, Rs 30 for six months. All subscriptions are payable in advance. The subscription entitles the subscriber to a free copy of all Supplements issued by Indian Finance, including the Yearbook, which is published in the last week of December and distributed in the first week of January. Single copy price of Yearbook Rs 10.

Advertisement rates: 1" to 75": Rs 19, 76" to 150": Rs 7.50, over 151": Rs 6, all per single column inch. Casual advertisements are chargeable at Rs 10 per column inch. Prospectuses and Chairman's speeches: Rs 19 per column inch. Balance-sheets: Rs 8 per column inch. Material for advertisements should reach the office by the preceding Wednesday of each week.

Special: The advertisement rate for Supplements is Rs 500 per full page and Rs 300 per half page. Colours extra, at Rs 100 per colour. Booking for the Yearbook may be made from July 1, 1960.

Other information: Concessional subscription rates are available for bona fide college students on recommendation by Heads of department. Research students may obtain the loan of Indian Finance files on payment of a deposit, or on guarantee by Heads of department.

Editorial and Advertising Offices: 116 Lower Circular Road, Calcutta, Telegram: Intinance. Telephone: 24-4643 (Editor) and 24-4732.

Bombay Office: "Navsari Chambers", Outram Road, Fort, Bombay. Representative: Jamshed S. Vatcha. Telephone: 263721.

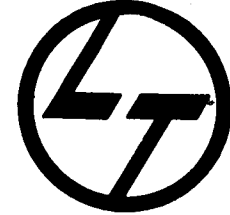
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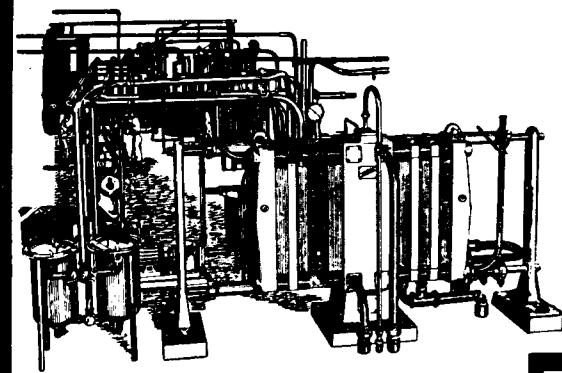
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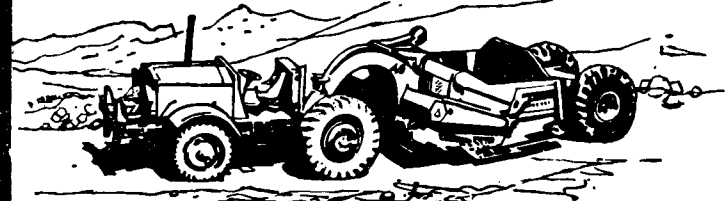
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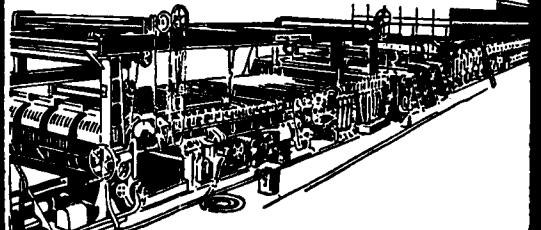
IN SERVICE  LIES SUCCESS...



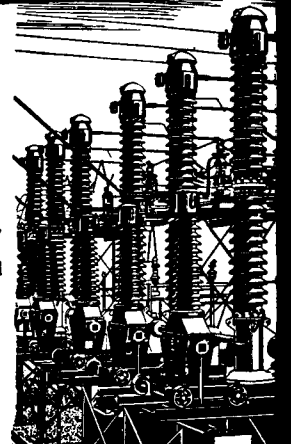
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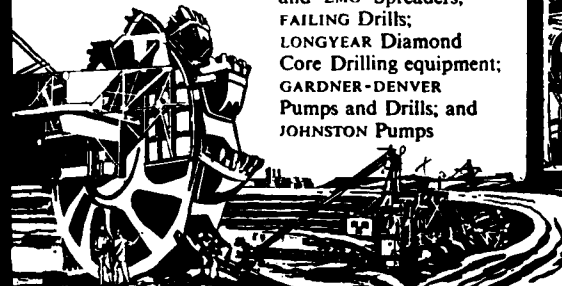
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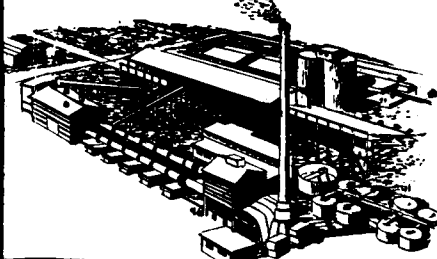
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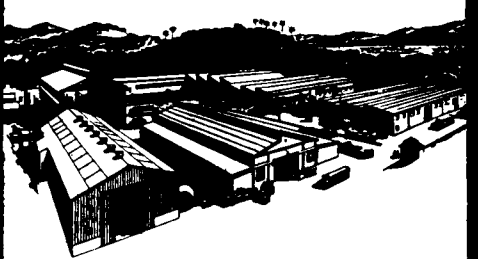
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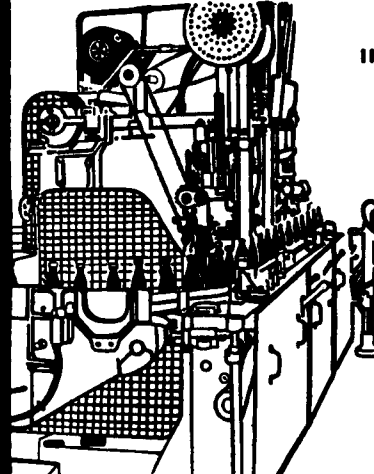
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To the Neyveli Lignite Project, and other mining schemes, L & T have supplied 'LMG' Bucket Wheel Excavators and 'LMG' Spreaders; FAILING Drills; LONGYEAR Diamond Core Drilling equipment; GARDNER-DENVER Pumps and Drills; and JOHNSTON Pumps



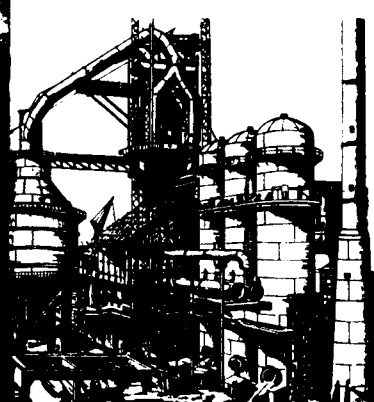
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Engineering Construction Corporation Private Limited a fully owned subsidiary of L & T, has constructed a number of cement factories, notably the cement factory of India Cements Limited at Tinnevely. L & T, together with ecc, undertakes to do "turn-key" jobs, including all design work, civil engineering and the supply and erection of equipment



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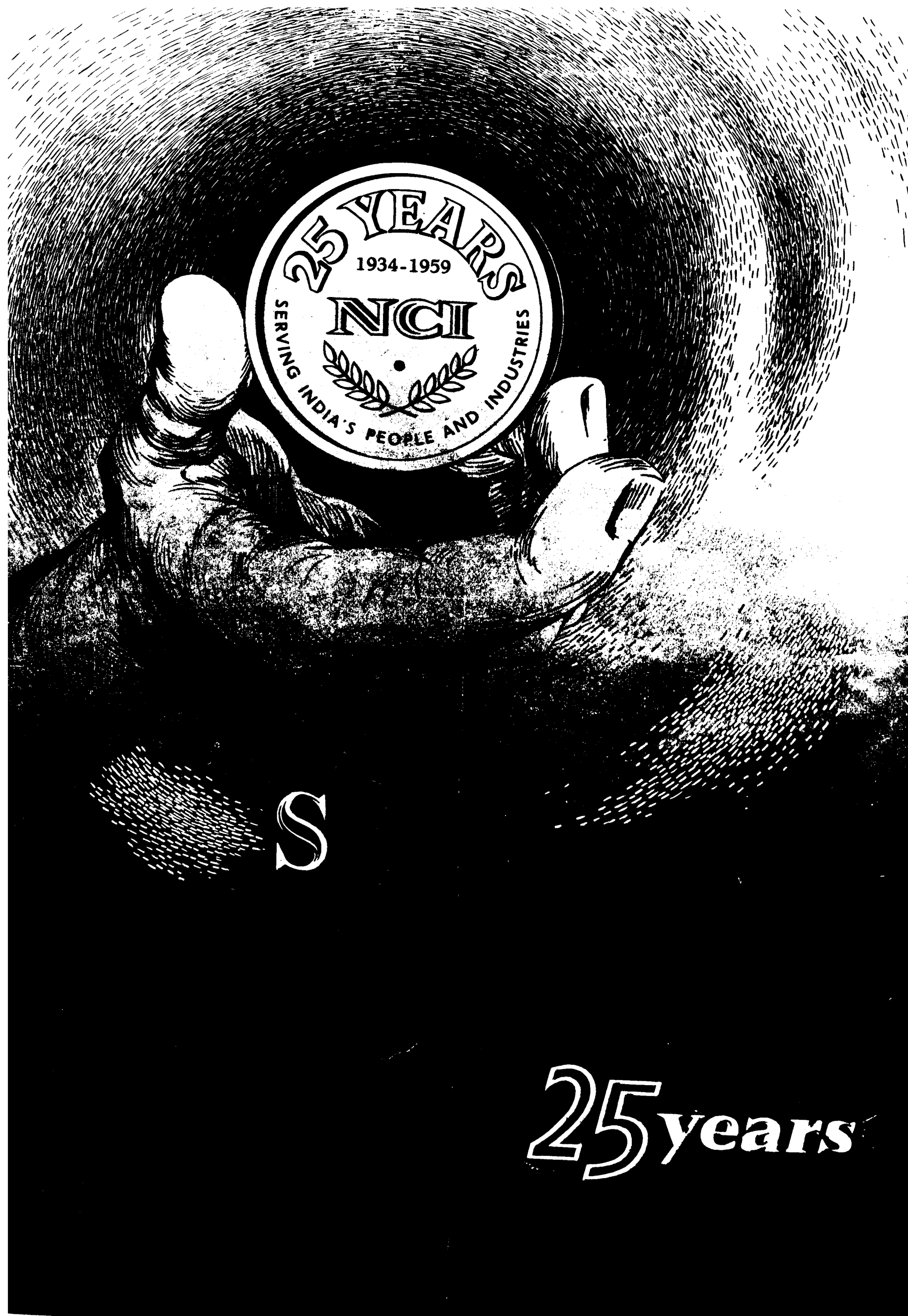
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Indian Finance

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ANNUAL
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Second Plan Turns the Corner

Thinking Begins on Third Plan

Economic Outlook Improves

Soberly Hopeful Prospects

IF 1958 was clearly a year during which developments in the Indian economy were such as to cause a crisis of confidence, particularly in respect of diffidence about Indian ability to see the Second Plan through, it may be asserted that 1959 witnessed the casting off of such gloom and defeatism; indeed, we had the strange phenomenon of being no longer concerned about the destiny of the Second Plan and, instead, began to pre-occupy ourselves with what the Third Plan should be. Partly, it was the improved economic situation, the rise in prices notwithstanding, that enabled the confidence that successful completion of the Second Plan could be taken for granted. Agricultural production, which had been disappointing in the two earlier years, showed a welcome improvement. The rate of growth in industrial production, which had appeared to slow down during 1958, was markedly, and even spectacularly, better. Exports, which had been earning rather less foreign exchange than had been contemplated by the framers of the Second Plan, now began to rise in terms both of value and volume, not to speak of a diversified range as well. It is true, imports, far from showing any decline, increased the size of the trade deficit. Nevertheless, the foreign exchange situation as such, owing to the assistance received from friendly countries, caused us no bother. Indeed, during 1959, despite the utilisation of roughly Rs 25 crores of foreign exchange for the purchase of gold to be made over to the International Monetary Fund as a consequence of the raising of quotas with the IMF, the foreign exchange holdings of the Reserve Bank rose during the year. The gilt-edged market continued to be firm, and governmental borrowings, both Central and State, proved to be incredibly successful. Then, as an index of the enlarged industrial activity in the private sector, more and more issues were placed on the capital market; and the confidence of the investor was proved time and again by the considerable over-subscription with which each such new issue was greeted. Thus, the food supply position was better, industrial production rose considerably, the flow of imports did not slow down, but prices nevertheless continued their upward trend. The most important question that we have to consider against such a background is whether, during 1959, the capacity of the Indian economy to absorb fresh bouts of deficit financing has become so restricted, that the pace of growth in internal production was not sufficient to offset the increase in money supply, so that the resulting inflation was responsible for the undoubtedly disquieting price situation.

It is undoubtedly true that the inflationary threat inherent in deficit financing has now become more real with the disappearance

of the cushion in the form of foreign exchange reserves. At the same time, however, it is important to interpret correctly the phenomenon of the price rises such as have occurred in India in the recent past and particularly during the last year. But, before we thus proceed to deduce the description that ought to be given to the rising trend in prices in India, we may take note of the other developments in the Indian economy.

First of all, we may deal with agricultural production. Mr S. K. Patil remarked rather humorously, soon after he assumed office, that he would rather be a Minister of Agricultural Production than be a Minister of Food Distribution. He could well have made that remark more seriously and with good reason, for, the very designation of his portfolio has all along suggested, by implication, that food distribution has primacy over agricultural production. But it is doubtful if even a lively recognition on Mr Patil's part of the need for dealing with food as a problem of production rather than of scarcity, imports and procurement would be equally well shared by the vested interests of his Ministry. For, the fact remains that, in the last three or four years, this administrative ministry has systematically been built up to a mammoth size as a machinery oriented more to directing or administering partial food controls in all their bewildering complexity than to directing or administering effective action programmes for increasing agricultural production.

What the new Food Minister inherited was a cobweb of controls and restrictions which add up to a cumbersome half-way house between a wholly free economy and a fully controlled economy. These controls and restrictions, which have taken the form of maximum controlled prices for procurement in different States and controlled issue prices at fair price or informal ration shops, movement restrictions through zoning, cordoning, etc., control of bank credit against foodgrains, ban on forward trading in wheat and coarse grains and pulses, licensing of wholesale dealers and requisitioning of stocks in suitable cases, have been ostensibly intended to check any rise in prices and to facilitate procurement. But neither purpose appears to have been achieved to the desired extent. At the same time, it looks as though these partial controls (which do not involve monopoly procurement from producers at control prices and statutory rationing as in 1948-52 when full-fledged control was in force) have nevertheless had a measure of success in as much as the wholesale prices of cereals in the country as a whole have been higher in 1958-59 by only 7 per cent as compared to 1952-53. In this connection, the

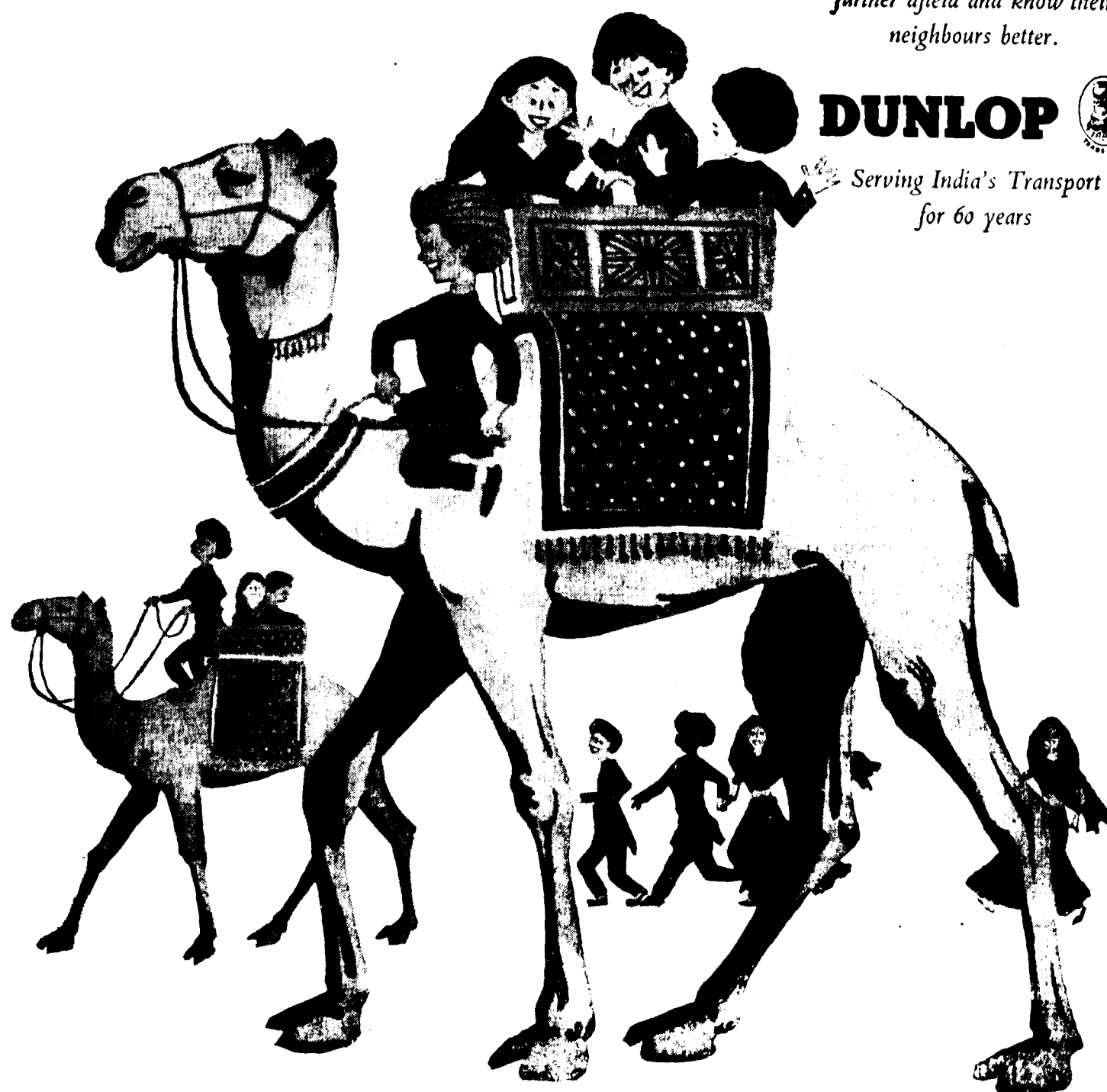
Brimming with laughter and excitement, these Rajasthani children cluster around their quaint 'conveyance', the camel. Not every day do they have such fun — a camel ride across the sandy wastes and a marriage feast awaiting at journey's end. A few moments more and off they will go, swinging in rhythm with the trotting camel and completely at ease on the tall mount.

But *How far Can a Camel go* — and how fast ?

In vast tracts of India travel is still slow and uncertain. More roads and improved transport will broaden the horizons of our children enabling them to travel further afield and know their neighbours better.

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following table has been specially constructed to show what broad correlations there are between production of cereals, prices of cereals, money supply, and prices of commercial crops.

Year.	Index of production of cereals.	Index of wholesale prices of cereals.	Index of money supply with the public.	Index of wholesale prices of sugar and gur.	Index of wholesale prices of oil-seeds.	Index of wholesale prices of fibres.
1952-53	100	100	100	100	100	100
1953-54	119	98	102	125	124	102
1954-55	114	80	109	115	92	108
1955-56	112	76	124	89	85	108
1956-57	116	96	131	98	120	116
1957-58	108	101	135	108	120	118
1958-59	125	107	142	127	127	108

It will be seen from this table that if the increase in cereal production in 1953-54, 1954-55 and 1955-56 as compared to 1952-53 was responsible (partly, of course) for the decline in prices, the steep increase in money supply since 1955-56 was responsible (partly, again) for the rise in prices. At the same time, the comparatively higher prices for commercial crops in recent years also appear to have been partly responsible for the rise in cereal prices because, when the money returns from commercial crops were obviously greater, the cash needs of agriculturists should have been met to a substantial extent, thereby obviating the need for premature selling of their cereal surpluses. The most relevant fact that emerges is that the increase in money supply and the increase in the prices of commercial crops have together been responsible for lifting cereal prices from out of their slump. From the point of view of the prosperity of the agriculturists, this has been a salutary development.

But, at the same time, it looks as though the increase in cereal prices might easily have been greater in the circumstances of currency inflation and of higher profitability of commercial crops; if this has not taken place, it should have been due to the increase in production in 1958-59 and to the partial effectiveness of partial controls, and this may be reckoned as a salutary development from the point of view of the non-producing consumers. If, however, production declines in 1959-60 as compared to 1958-59, and if, at the same time, money supply and commercial crop prices increase further, the chances are that cereal prices will rise further irrespective of whether there is state trading or not.

It is thus clear that foodgrains crops in 1958-59 have recorded an impressive increase. If, nevertheless, the index of wholesale prices of cereals also showed a rise during the year; if, moreover, indigenous supply of foodgrains had, as it was, substantially increased by dint of imports from America under Public Law 480, the trend in foodgrain prices should not have been upward. The reason for the increase in prices despite both higher production and larger supplies can only be one or a combination of the following three factors: (a) general inflation in the country; (b) an increase in consumption offsetting or being greater than the increase in supplies; and (c) a greater holding power on the part of the cultivator. It is pertinent here to study the behaviour of the index numbers of wholesale prices. As at the end of December 1958, the index number for all commodities stood at 110.8 (1952-53=100). As at the week ended December 12, 1959, the relevant figure had risen to 117.7. But what is significant is that, over the same period, the index number for food articles rose from 112.2 to 119.0 and the weightage given to food articles is 504 out of 1,000. Nevertheless, it is also undeniable that the other main heads have also shown increases, as the following table discloses:

	Decr. 27, '58	Decr. 12, '59
Liquor and Tobacco ..	97.8	101.4
Fuel, Power, Light and Lubricants ..	115.0	116.5
Industrial Raw Materials ..	112.2	125.6
Manufactures ..	108.0	112.6

We wish to suggest that, but for the sharp rise in the index number of food articles, the rise in the index for all commodities would have been much more moderate. Indeed, Mr H. V. R.

Iengar, Governor of the Reserve Bank, had occasion in August 1959 to speak about the trend in prices in India, to which we shall be making reference in due course. But, at the present juncture, we may move on to the consideration of trends in industrial production.

In this context, we may start by reviewing the trend of industrial production in 1958. We may recall that the rise in the general index during 1958 was rather small and this was taken to mean that the rate of growth had slackened considerably. Indeed, according to the Report on Currency and Finance for 1958-59, "the growth of industrial production was disappointing"; this is because the rate of growth slowed down "in 1958 to 1.5 per cent from 3.5 per cent in 1957"; but the Report adds that, "in the closing months of the year there was evidence of an increased tempo of industrial activity." It is true, and therefore a fact, that the general index of industrial production, with 1951 as base, rose only from 137.3 to 139.4; but we are not sure that the growth itself was disappointing, or that improvement was discernible only toward the close of the year. It needs to be recognised, as the Report does acknowledge in the chapter on Industrial Production, that it is a decline in the output of cotton cloth and yarn that obscures the picture by suggesting a slowing down in the rate of growth. Thus, if regard is had for the fact that the index for cotton cloth fell by 7.2 per cent, and that for cotton yarn by 3.5 per cent; and if, moreover, it is realised that the weightage given to these two heads accounts for more than one-third the total weight of the index, it will be clear that, but for these two sectors, there has been appreciable industrial growth generally—though, of course, there were other relatively soft spots like sugar and automobiles. In broad terms, therefore, the growth of industrial production was surely not disappointing.

Then: did the improvement in industrial production take place only in the closing months of the year? It is true that, as the following table shows, the indices for six major heads, accounting for two-thirds of the total weightage, were rather lower in June 1958 than they were for the year as a whole:

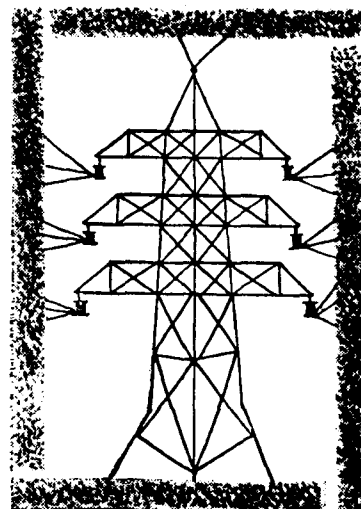
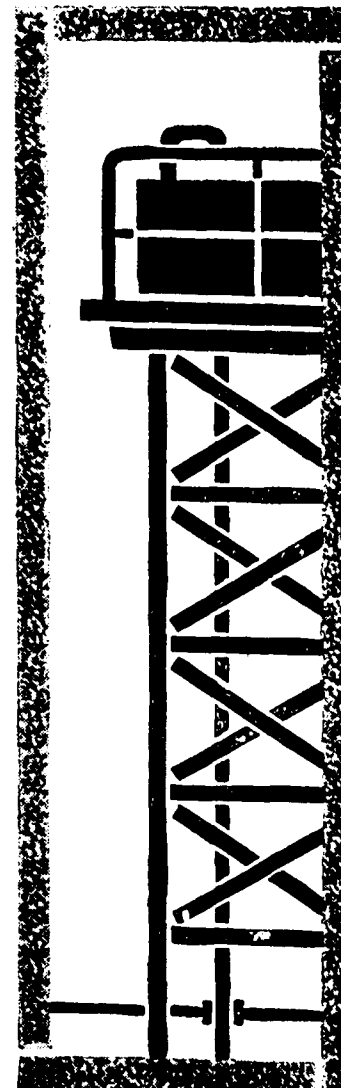
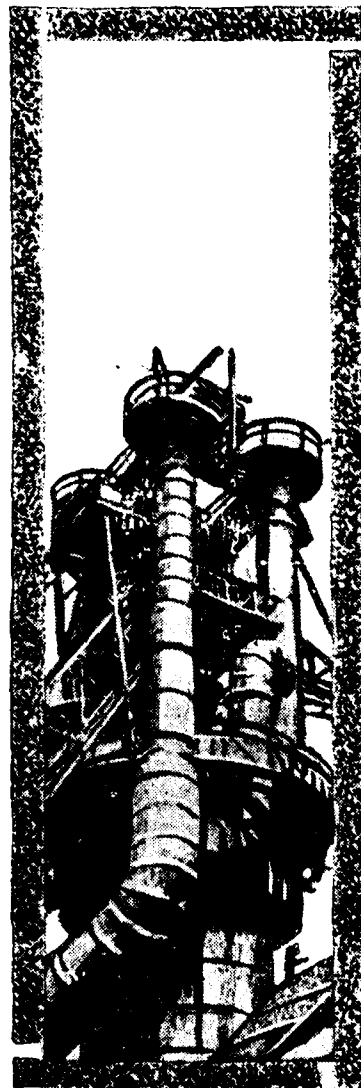
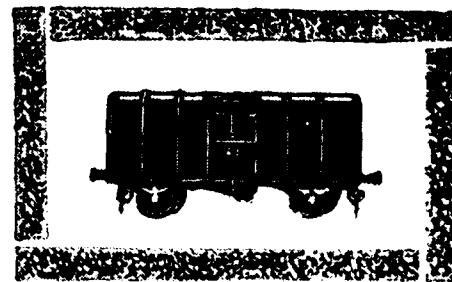
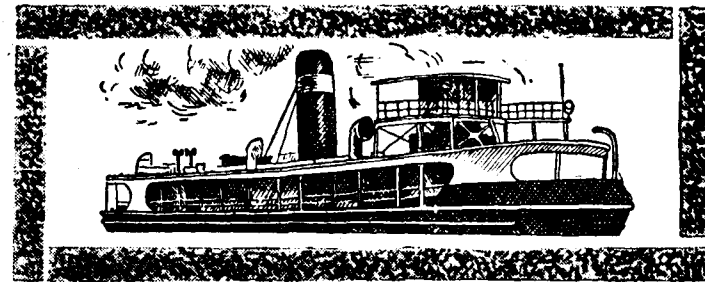
Industry	Weight	1957	June 1958	1958
Cotton cloth ..	24.1	109.7	96.3	101.8
Cotton yarn ..	12.0	127.5	110.5	123.1
Jute textiles ..	11.9	120.5	114.9	123.9
Sugar ..	4.3	185.5	3.9	175.5
Coal ..	6.7	126.8	124.3	132.1
Iron and Steel ..	5.9	119.3	107.5	119.2

But how is this to be reconciled with the figures in respect of the seasonally adjusted general index of industrial production? The relevant figures are as follows:

	General Index	Cotton Textiles
January ..	147.7	114.4
February ..	137.9	103.2
March ..	138.1	107.5
April ..	137.8	106.7
May ..	138.8	110.6
June ..	131.1	101.1
July ..	137.3	111.7
August ..	135.7	108.7
September ..	140.3	110.2
October ..	144.3	113.4
November ..	138.0	101.5
December ..	145.8	117.5

The preceding figures show, on the contrary, that, on the whole, industrial production has been steady throughout the year. In the early part of 1958, the steadiness in the general index would have been possible only if, in the heads other than the six shown in the first table, considerable expansion in production had

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taken place. By the same token, so considerable a rise in the six industries in the second half of 1958 must partly have been offset by declines in the other constituents of the general index, since, otherwise, the rise in the general index would have been steeper still.

During 1959, industrial production has been faring rather better. The adjusted general index had improved by June to 145.5. Cotton textiles had already contributed to this improvement with its index number rising in June 1959 to 108.5. It is here that we may note the link between agricultural production and consumption of cotton textile. Following a good crop year, consumption of cotton textiles tends to rise appreciably. This was the case in 1956 and so, too, in 1959. In consequence, the general index of industrial production was greatly helped by a substantial rise in the output of cotton textiles, this latter being absorbed by the additional purchasing power released as a result of increase in agricultural production. As we have seen, in 1956-57, the index number of production of cereals, with 1952-53 as base, rose by 4 points; simultaneously, the index number of industrial production for cotton textiles rose by 5.6 points in 1956; and the general index of industrial production for 1956 showed a smart rise of 10.2 points. Similarly, with a further sharp rise in the index of production of cereals in 1958-59, a considerable rise in the output of cotton textiles is to be expected, as also a significant rise in the general index of industrial production. The latest available figures in regard to five important industrial heads are as follows: cotton cloth (July) 107.1; cotton yarn (July) 131.6; jute textiles (July) 129.7; coal (July) 135.0; and iron and steel (June) 155.1.

It may therefore be taken for granted that 1959 will prove to witness perhaps the most heartening rise in industrial production since the Second Plan began. Moreover, we may note here that the general index of industrial production does not take into account the output of newer industries which have been established after 1951 or which have since come in for accelerated development.

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Coming now to trade and balance of payments, detailed figures are not available for the second half of 1959. But, in January/June 1959, total imports were somewhat lower at Rs 508.8 crores against Rs 541.2 crores in the corresponding period of 1958, though indications are that heavier imports during the second half of 1959 will cause the total import bill to be somewhat higher for this year than was the case in 1958. On the other hand, exports, which had already shown an improvement from Rs 276.7 crores in the first half of 1958 to Rs 296.8 crores, are known to have been moving at an even brisker pace in the months since then. Indications are that exchange earnings from exports may amount to very nearly Rs 700 crores during 1959. Contributing importantly to such improved performance on the export front is the keen demand that has been evidenced for jute goods; and there has also been a discernible improvement in exports of cotton textiles. Most hearteningly of all, exports of engineering goods are now in the process of being a significant contributor to foreign exchange earnings. Be that as it may, with imports during 1959 running at a slightly higher rate than in 1958, with exports improving perceptibly over 1958 and with foreign assistance on a stepped up scale, the foreign exchange holdings of the Reserve Bank, which, on the last Friday in December 1958, had been placed at Rs 188.85 crores, had registered a rise, by December 25, 1959, to Rs 212.64 crores; and this despite, as we have pointed out, the utilisation of Rs 25 crores from foreign exchange reserves in the purchase of gold.

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The gilt-edged market was as firm as authority could have wished; and the capacity for absorption of Government securities was, if anything, slightly larger than in 1958, which itself had been a spectacular year. Central Government borrowings during 1959-60 have elicited subscriptions totalling Rs 228.84 crores, implying an increase of Rs 23 crores over the previous year. State Government loans met with an unprecedented reception, subscriptions totalling nearly Rs 100 crores against Rs 61.5 crores sought. The amount retained was around Rs 67 crores, so that the total borrowings of the Central and State Governments may be said to be in the environs of Rs 295 crores. To this, moreover, we

have to add the purchases of Scheduled Banks through the Reserve Bank tap throughout the year, to indicate the real magnitude of absorption of gilt-edged during 1959. It is possible to arrive at an approximation of this figure by the following process: Cash subscriptions of Scheduled Banks to the Central Government borrowing programme were in the neighbourhood of Rs 50 crores. Cash subscriptions of Scheduled Banks to the State Government loans were calculated to be in the region of Rs 25 crores. Thus, Scheduled Banks' purchase of gilt-edged, at new loan time, in the Central and State Government loans, may be guessed to have been around Rs 75 crores. Against this, the investment portfolio of Scheduled Banks has risen from Rs 637.17 crores at the end of December 1958 to Rs 787.82 crores as on the last Friday in 1959. Thus, the increase in the investment portfolio over the year amounts to almost exactly Rs 150 crores. Therefore, it can be inferred that gilt-edged purchased through the Reserve Bank tap by the Scheduled Banks accounted for another Rs 75 crores. This means that total absorption of gilt-edged during 1959 may have been in the environs of Rs 370 crores, or more than a crore a day. So it is that we suggest that the 1959-60 borrowing programme of the Central and State Governments offers the fullest and most irrefutable proof that, in borrowing from strength, India has been able to obtain, particularly during the last two years, rather more from market borrowings than had been expected. As at the end of the fourth year of the Second Plan, gross borrowings of the Central and State Governments had amounted to Rs 922 crores. This means that, in order for the Second Plan target of market borrowings to be achieved, only Rs 200 crores gross have to be realised in 1960-61. To put it pithily, the target for market borrowings under the Second Plan, it became clear in 1959, is assured of being resoundingly and thunderingly achieved.

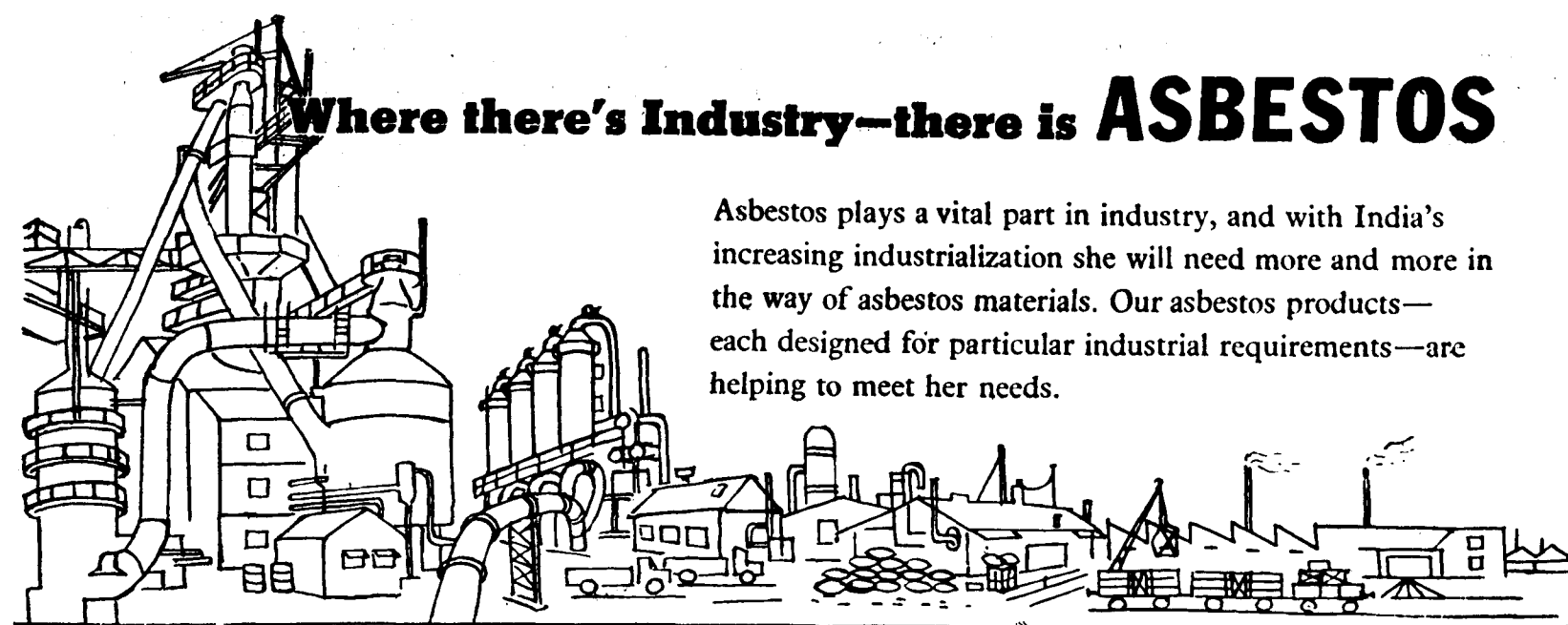
The record of success of new issues in the private sector needs no tabulation. There have been instances where there has been oversubscription to the extent of three or four times the amount on offer. Activity in the capital market proved to be exciting during 1959, and the index number of variable dividend industrial securities rose from 136.5 at the end of December 1958 to 158.2 on December 19, 1959. Each new issue that came on the market did so at a premium. The confidence of the investor, not to speak of the cheerful investment climate, stands reflected both in the success of the new issues and in the considerable rise in share prices during 1959.

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The encouraging progress in the economy during the past year was reflected in the "quick" estimate made of national income by the Central Statistical Organisation. The achievement in this respect is clearly brought out in the following table, which seeks to present national income, per capita income, and the shares of the agricultural and non-agricultural sectors to national income in the form of index numbers:

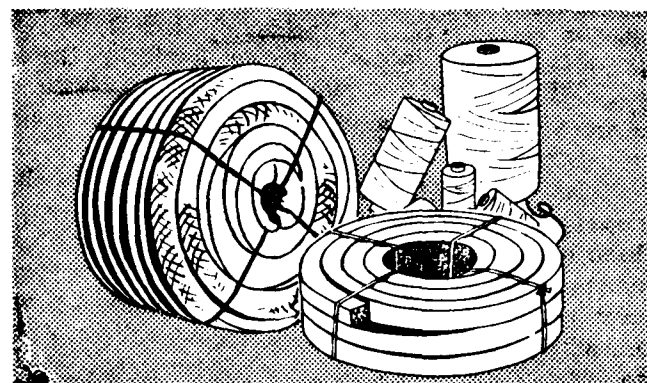
1948-49	100.0	100.0	100.0	100.0
1949-50	102.0	100.7	102.6	101.4
1950-51	102.3	99.8	102.1	102.5
1951-52	105.2	101.3	104.5	105.9
1952-53	109.4	103.9	108.2	110.5
1953-54	116.0	108.8	117.2	114.8
1954-55	118.8	110.1	118.4	119.3
1955-56	121.2	110.8	118.1	124.1
1956-57	127.2	114.8	123.5	130.7
1956-57	125.2	111.6	116.0	134.1
1958-59	133.8	117.7	129.0	138.4

Certain conclusions can be drawn from these figures. Firstly, the sharpest rise in both the index number of national income and in the index of per capita income has occurred during 1958-59. Secondly, the contribution of the non-agricultural sector to national income has been increasing at a faster pace relevant to the share of the agricultural sector. At the same time, however, the results for 1958-59 have been enabled mainly by a sharp improvement in the agricultural sector. Then, whereas the agricultural sector shows two-way movements, the contribution of the non-agricultural sector has been a steadily rising one. The average annual rate of growth of agricultural product in real terms



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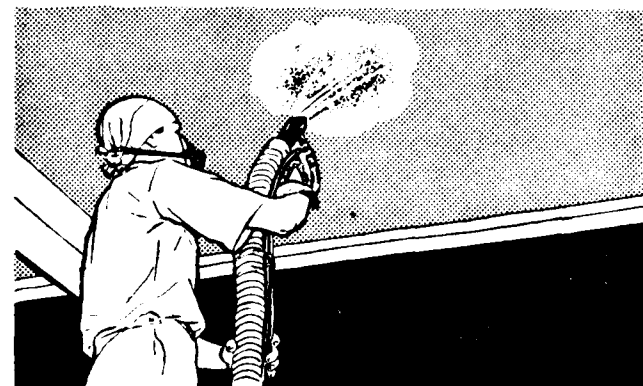
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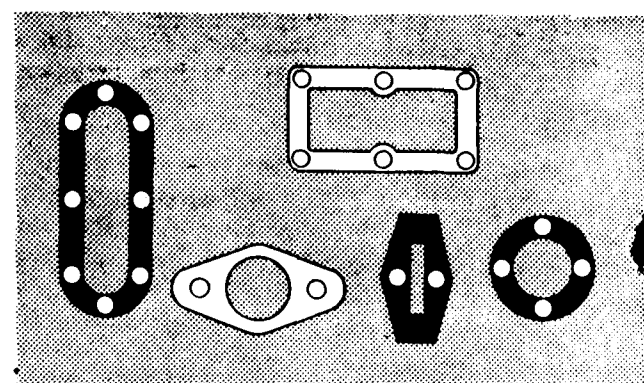
"Firefly" asbestos packings are used for sealing off stuffing boxes, glands and cocks, thus ensuring that leakages of liquids, steam and gases do not occur.

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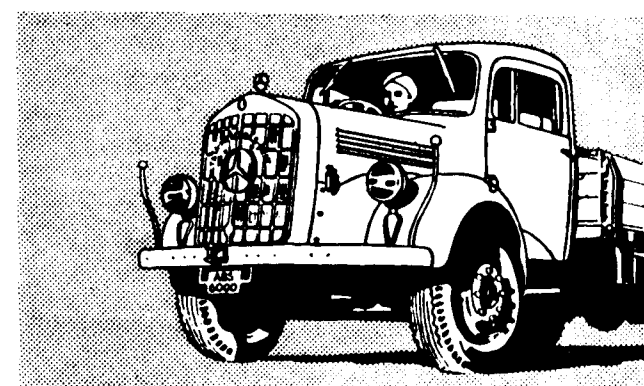
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over the period has been 2.7 per cent; and the relative figure for non-agricultural product is impressively higher at 4.1 per cent. It is to be anticipated that the growth in national income during 1959-60 will prove to be eminently satisfactory, since a not disappointing foodgrains crop has been accompanied by, as we seen, a strident increase in non-agricultural production.

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At this stage, before moving on to a reassessment of the price situation, we may deal with the Budget presented by Mr Morarji Desai for 1959-60.

Circumstances helped Mr Desai, the Finance Minister, to present a Budget for 1959-60 which could be in startling contrast with the Budgetary efforts that the country has experienced since the beginning of the Second Plan; and it lies to Mr Desai's credit that he fully seized the initiative. To a certain extent, it is true, Mr Desai's approach was inevitable, in the sense that the Indian Finance Minister of the day, whoever he may be, will necessarily have as the primary consideration the fortunes or otherwise of the Second Plan. But then, even if the data are, as it were, fixed, there still remained considerable scope for Mr Desai to show imagination, initiative and daring in the conclusions he drew from them. The first conclusion or axiom is, in our view, a certain deliberate attempt by the Finance Minister to avoid, both in his phraseology and in the content of his proposals, anything that might tend to disrupt confidence. The second consideration has been the need to streamline the tax system, to continue the process that was initiated by Mr T. T. Krishnamachari in 1957-58. The third task, which Mr Desai took upon himself, and which has resulted in a set of surprise proposals, is the tidying up of the tax structure in the corporate sphere. Lastly, Mr Desai has deemed it to be his particular responsibility, as the steward of India's finances, to paint a picture which, while avoiding complacency, nevertheless emphasised the brighter aspects in the economy. All this the Finance Minister did and did consummately well.

In tying up the loose ends, Mr Desai showed himself to be free of predilections and of doctrinaire dogmatism. Two of the taxes in the Indian corporate scene have in practice been discovered to be harassing. One is the Excess Dividends Tax; it has been known for some time that it would some day disappear from the statute books, since Mr Krishnamachari, who drew up the "integrated" tax structure, did not consider it to be an essential part of it. When first the Excess Dividends Tax was imposed, its raison d'être was explained as being due to Government's solicitude for the companies to build up internal resources; the "penalty" of the Excess Dividends Tax, it was thought, would provide incentive for a company to retain a larger quantum of profits. Its iniquitous incidence on companies attracting Section 23A of the Income-tax Act was later recognised when the rates in respect of such companies were brought down. But it was never expected that its abolition would come quite so soon. As for the Wealth Tax its abolition would come quite so soon. As for the Wealth Tax, made applicable to companies, this journal had been maintaining, ever since it was instituted, that it was retrograde. But, again, there was in no quarter the expectation that the Wealth Tax, too, would be abolished. Mr Desai must have satisfied himself that, both in order to remove a source of harassment and to streamline the tax structure, he should set about the abolition of the two taxes.

But Government's revenues could not be allowed to suffer; also, there is a Parliament which will want to know why, if the taxes had been removed unconditionally, partiality was being shown to an alleged section of "haves". Here was where Mr Desai's ingenuity and resourcefulness and acumen, political no less than economic, were called for. The Finance Minister discovered that, in the current procedure in regard to dividends declared free of tax, a part of the income-tax derived from his companies was being returned to the shareholder as credit on his dividend. For various technical reasons, into which we need not go here, the system of "grossing up" of dividends has today become most complicated. There are even cases where the "refund" is not claimed by the shareholder. Mr Desai thought up the bright idea of doing away with this system. He arrived at a simple formula: the present revenue from corporate taxes plus the realisations from the Excess Dividends Tax and the Wealth Tax minus the quantum of income-tax claimed as credit or refund by shareholders is equal to 45 per cent of corporate profits. Since

Mr Desai did not intend to secure an increase in revenue from corporate taxes, he was in a position to say: the new rate of corporate taxation is 45 per cent: the two taxes are abolished, and so too the grossing up.

Mr Desai's final task was to stress the need for confidence. He could, as he did, point to 1958-59 as having witnessed the finding of solutions for the problems that have recurrently been facing the country since the Second Plan began. Whether in regard to agriculture or industrial production, the price situation or the money market, Mr Desai was in the happy position of being able to record an improvement having taken place during 1958-59. On the whole, said the Finance Minister, "the economic situation is somewhat better than it was a few months ago".

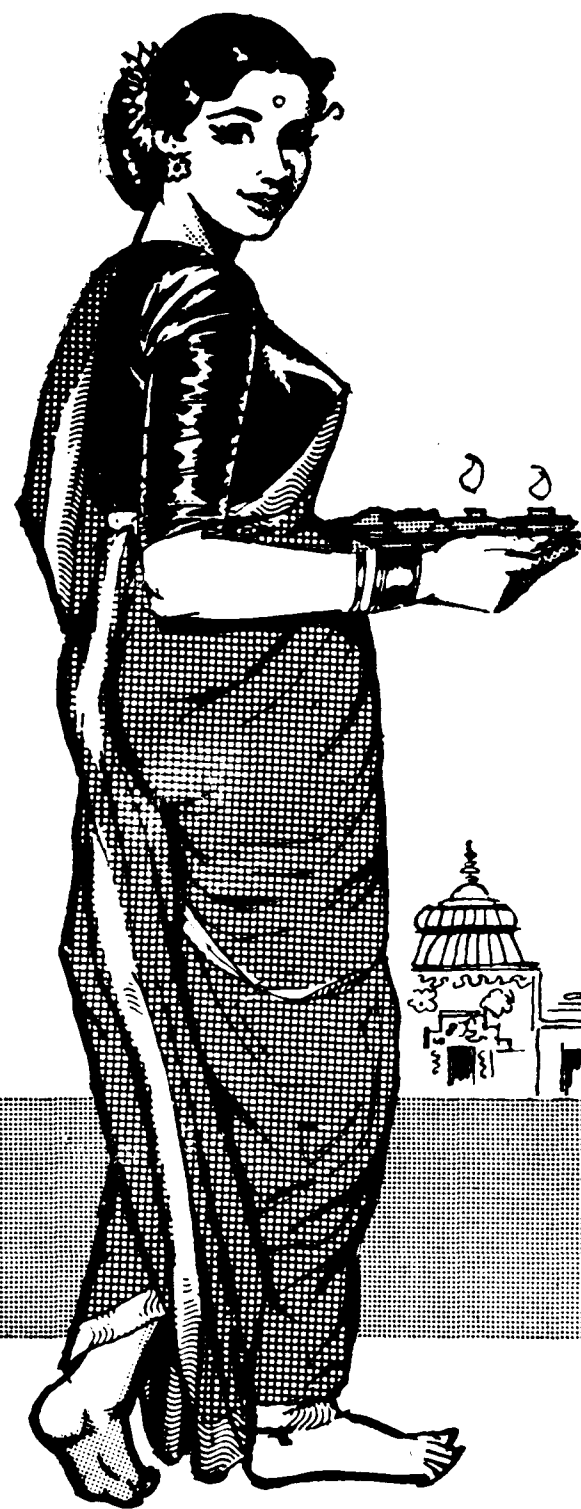
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Reverting to the price situation in India, it must be admitted that, every now and then, trends have been disquieting. The average of index numbers of wholesale prices, with 1952-53 as base, moved up to 104.6 in 1953-54, then declined in the next two years to 97.4 and 92.5 respectively, only to mark an increase in the next three years successively to 105.3, 108.4 and 112.9. In the first six months of 1959-60, the average was again higher at 115.4. But it is well to remember that the degree of price rise in India, as Mr Iengar has pointed out, compares very favourably with the experience in other countries. In this context, the Reserve Bank Governor said: "It would appear that, in the international setting, we have come off pretty well." But we may again note that the fluctuation in the index numbers has been caused mostly by movements in the index of agricultural commodities, and particularly food articles. It has happened, therefore, that the Indian experience of unstable trends in foodgrains production has been primarily responsible for the two-way movements in the general index of wholesale prices.

The Indian price situation is rather complicated by two factors. On the one hand, the slow but certain improvement in the standard of living at the grass roots level has induced a steady increase in the consumption of foodgrains, so that the higher production is being offset by a higher level of per capita consumption. In the second place, as we have seen, the general index of wholesale prices attaches a weightage exceeding 50 per cent to food articles. Thus, it seems clear that it is not deficit financing which has been responsible for, or that it has set off, a general rise in prices. In other words, it is not that money supply has so increased as to cause general inflation, but that, in a planned, developing economy, there are alternately and in different spheres of the economy areas of surplus and of shortage. Thus, particular sectors of the economy are subject to the pressure of shortage, while others may simultaneously be experiencing a downward pressure of prices owing to surplus obtaining. Nevertheless, it is important that we should not be complacent about the price situation, by drawing comfort from the fact that the Indian experience in the international arena has been satisfactory enough. As Mr Iengar has pointed out, "we cannot afford to allow the real worth of the rupee to go down further." The only answer, it appears to us, is for such vigilance on the part of the authority as will ensure or enable shortage in particular sectors of the economy to be quickly made up. In this regard, the paramount importance of a consistent and substantial increase in agricultural production cannot be exaggerated.

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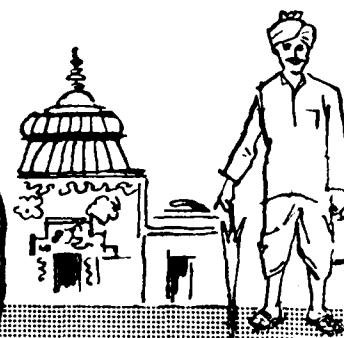
What is clear from the experience of 1959 is that the Second Plan's success can be taken for granted. An article in this Year Book analyses the real success of the Second Plan. But what is of moment is the planning of the Third Plan, and we have therefore sought to elicit important opinion on this subject. Mr U. N. Dhebar and Mr Madanmohan Ruia have given their views on what the approach to the Third Plan should be. It seems to us that, when the Third Plan is finalised, the suggestions that have emanated from these two important quarters will undoubtedly be heeded. This Year Book contains, besides, stray thoughts on other aspects of the Third Plan. Indian Finance's views as regards the Third Plan have been expressed by Eavesdropper, whose article follows immediately.



The dress of the people...

Costumes, whether they are for occasions or for daily wear, vary all over the world. Climatic conditions, natural materials available, religious demands and individual ingenuity are some of the factors that determine the dress of a people.

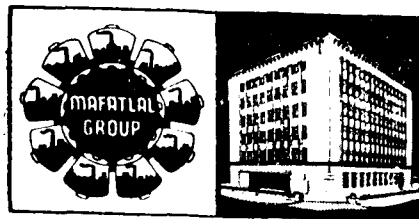
Many varied costumes are worn in India but different costumes need different qualities of cloth. The Mafatlal Group of Mills manufactures a wide range of cloth for everyday use in all parts of the country.



Women from different parts of the country wear the saree in their own special way. The pretty Maharashtrian women of Western India for instance, wear a nine-yard saree, like a dhoti, taken between the legs and tucked in at the back.

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GUESTIMATING THE THIRD PLAN

By
"EAVESDROPPER"

I AM gratified to find that an anxious interest is being shown generally in the formulation of the Third Plan. From time to time, ministerial pronouncements chalk out particular targets to be kept in view for particular sectors of the economy. Then, we have had the Ooty seminar which, even if we do not agree with its views, has certainly provided a lead to thinking on the Third Plan. As if in rebuttal, we were then vouchsafed what the Federation of Indian Chambers of Commerce and Industry considers the Third Plan should constitute. So, it would seem we will have no legitimate grounds for complaining that the Third Plan could ever be charged with being drawn up in haste. But what puzzles me is that, so far, there has been no direction evidenced in thinking; we have had generalisations, we have had indications of what targets should be. But how is it that so little of attention has been paid to what should be the most important aspect of planning, namely resources?

I do not intend, at this stage at any rate, to go into detailed figures, but I do have some idea of where attention needs must be focussed, if we are to avoid during the Third Plan, the sort of revision that was forced on us because resources in sight were thought to prove insufficient. Let us take some broad figures. I think it is generally agreed that, provided we can raise the necessary resources, the Third Plan should aim at an expenditure of around Rs 10,000 crores. But the comparative figure in respect of the Second Plan is not Rs 4,800 crores, but Rs 7,200 crores. It is thus that, relative to what has been undertaken in the Second Plan, the figure of Rs 10,000 crores is not too high.

Then, in the light of the experience of the Second Plan. I suggest it will also be agreed that the foreign exchange requirement during the next five years of planned development, inclusive of repayment liabilities during the period, would work out to around Rs 2,500 crores. There can, of course, be no question of drawing down our exchange reserves—we probably sha'n't have any to speak of by that time. There can, equally, be no question of foreign assistance being made available to us in such abundant measure. This is a fact that we need fully to realise. For, it means that the Third Plan must also plan on a steadily increasing export surplus. It is all very well to say that never before in history has there been an industrial revolution without external assistance. But it is wise to recognise that the assistance we have so far obtained has itself been of gigantic proportions; and also that, however generous our foreign friends may be, what they can afford to give or lend cannot be sufficient to meet

the whole of our needs. What is more, self-respect requires that we make strenuous attempts to help ourselves, instead of fatalistically waiting for foreign aid. Thus, the export surplus we must aim at must be between Rs 50 crores and Rs 1,000 crores. Secondly, we cannot any longer agard to toy with the idea of raising a gold loan by the issue of bearer bonds. I know there are some practical difficulties, but none of these is insurmountable; and what plan was there that could proceed without a hitch? In the more than mere short-run, it would surely pay us to allow import of gold; with smuggling made unremunerative, the price of gold could gently be persuaded downward; and it would become that much easier to plan a gold bearer bond. Thirdly, we must stop thinking that, just because we could earn more by export of pig iron, we shall be indifferent to iron ore. I am convinced that iron ore can be exported in such considerable quantity, that it could contribute extravagantly to exchange earnings.

So far, so good; we next come to the ticklish subject of taxes. I must stress emphatically that there is no scope at all for an increase in the rates of taxes, direct, I mean. If anything, if small scale industry is to thrive and is to be encouraged, some measure of relief will undoubtedly be necessary. The figure talked of in this regard is usually Rs 2,000 crores. What has not been made clear is that this figure is not the target of the sum to be obtained by additional taxes. Just as, in the Second Plan financial data, credit was taken for some Rs 350 crores as surplus on the basis of the then current taxation, even so this figure of Rs 2,000 crores includes the surplus from taxes as they will obtain on the eve of the Third Plan. What can this surplus be, and what will determine it? First of all, we must make sure that the additional revenues raised are not frittered away, on non-developmental expenditure; as indeed happened during the Second Plan, when, despite the target of additional taxation being exceeded, the surplus available was denuded. This is the negative aspect to it. Then, because of a dynamic economy implicit in development, tax revenues may be expected to rise both because of newly created taxpayers and because of additional profits or earnings of the existing assesseees. Again, at existing taxation, the revenue from excise duties should rise considerably, because of the expected much

higher level of production. I may be optimistic, and I must stress the figure I now give is only a hunch, but the surplus as defined might contribute anything like Rs 1,000 to Rs 1,500 crores. The task of raising Rs 500 crores to Rs 1,000 crores, which would be the balance, would not be difficult; new products manufactured would attract new excise duties being levied; the check to tax evasion inherent in the new tax structure would contribute something; and the State Governments should certainly raise something by taxes on land revenue. Viewed in this perspective, the tax effort for the Third Plan has no reason to make us shudder.

Agreement, again, there is on the need for the public sector enterprises to yield profits in behalf of resources for the Plan; and the Railways, of course, will be expected to offer up a surplus, larger, if possible than was the case during the Second Plan. It seems to me that we should be able to hope for some Rs 500 crores as surplus from railway working but it is unlikely that, at any rate until the closing stages of the Third Plan, public sector profits will amount to anything much. Thirdly, provident funds and other deposit heads may fetch somewhat more than the Rs 250 crores for which credit was taken in the Second Plan. Taking the three together, you would get a figure of around Rs 800 crores, representing an increase of Rs 400 crores under this head over the Second Plan.

It may be recalled that the Second Plan anticipated that Rs 800 crores would be obtained externally; and also that, as early as November 1956, Indian Finance had suggested that resources raised externally would be nearer Rs 1,200 crores. It now appears certain that the Indian Finance figure will prove to be the nearer approximation. In this light, what can we count on for the Third Plan? Well, to work at the figure another way, we have seen that the foreign exchange needs will be in the environs of Rs 2,500 crores; and we have called for an export surplus of at least Rs 500 crores. I rather fancy that gold bearer bonds could yield us something like Rs 300 crores; and so, resources to be raised externally would be of the order of Rs 1,700 crores—a not impossible enterprise, since Second Plan realisations in this context would have been I repeat, in the vicinity of Rs 1,200 crores. What about deficit financing? Here, too, the unanimous verdict is that we cannot afford to rely too heavily on created money.

Investment in the private sector during the Second Plan is supposed to be of the order of Rs 2,400 crores. By all accounts, this is a target which will be reached, despite the likelihood that, in cement, capacity created by the end of the Second Plan will be rather lower than the target that was envisaged in this behalf. Where the money will have come from for putting through development on such a scale, it is impossible with any degree of accuracy to assess. However, it is interesting to find, in a study of 1001 public limited companies published in a recent issue of the Reserve Bank of India Bulletin, that the paid-up capital plus free reserves rose by nearly Rs 115 crores between the end of 1955 and the end of 1957. On this basis, the increase under the head of paid-up capital and free reserves during the Second Plan period of 1001 public limited companies, and representing perhaps half of the entire corporate business in the private sector in India, would amount to just around Rs 300 crores. That means that, for the whole of the corporate business in the private sector, as much as Rs 600 crores, or one-fourth of the total investment during the Second Plan in the private sector, will have been found from an increase in capital and free reserves. Then, Scheduled Banks' Advances have been rising by Rs 100 crores net a year, though it is only a part of the rise in Advances which goes to benefit industry and although, secondly, the Advances need not have been specifically in order to pay for development costs. Nevertheless, either as addition to working capital or as finance obtained against stocks and utilised in the purchase of plant and equipment, we may take it, broadly speaking, that the private sector will be benefiting at the rate of Rs 100 crores annually or something like Rs 500 crores during the Second Plan period. Thirdly, there are the advances of the Industrial Finance Corporation and the State Finance Corporations.

The Third Plan, I suppose, will envisage an effort in the private sector amounting to Rs 2800 crores. But recent experience, especially with the new structure of taxes for corporate bodies, does not seem to suggest that retained profits by companies will prove to be on the scale as heretofore. On the other hand, recent experience in the capital market has shown that there are funds enough with investors available for supporting worth-while new issues placed on the market. However, in this last regard, I need to qualify the statement with the remark that the right issues of existing companies have come off rather better than any new issues as such. Nevertheless, the conclusion is clear that capital is not so shy as it has been made out to be in certain circles. And it is also clear that,

ruinously high though the tax rate is supposed to be, savings have still accumulated with investors for supporting new enterprise. Whether or no the private sector will be able to command the Rs 2,800 crores needed for development under the Third Plan, therefore, depends on a number of factors. It is these factors with which we should occupy ourselves, since it will not avail us to start talking in specific figures.

The most important factor is, I suggest, not the tax policy of Government but, rather, the fact that theirs will be a development policy. The rate of governmental disbursements during the Third Plan will be rather higher than has been the case during the Second Plan. Such disbursements, in turn, will have a number of repercussions. Firstly, they will release mass purchasing power, even in cases where the new investment is in a capital intensive industry. Secondly, the newly formed purchasing power will need to be satisfied by the production of new consumer goods. Thirdly, with the Third Plan emphasis on agricultural production, mass purchasing power in this sector of the economy will also rise, and will also need to be satisfied with additional production of consumer goods. Fourthly, such disbursements on the part of Government will steadily be percolating into the banking system, causing Deposits to rise. Fifthly, this will enable banks to be in a better position to extend Advances to Industry.

Sixthly, if, as is likely to happen, the expansion in Advances is kept by official policy at a moderate pace, relative to the accretions to new Deposits, then, there will be a considerable demand for Government securities by the banking system. Seventhly, this heightened demand for gilt-edged will tend to push down yield. Eighthly, the lower yields obtained on gilt-edged would cause a sympathetic rise in the prices of equities. Such boom or boom like conditions in the stock market, finally, will induce more funds from the investor in support of the capital market. This predominant factor is, thus, a virtuous cycle.

The tax policy of the Central Government will, in the second place, undoubtedly influence the course of private sector development during the Third Plan. For a start, I may mention that the new structure of corporate taxes appears to leave a smaller surplus with companies, smaller both for distribution and for retention. To that extent, some disincentive has been imparted to new development in the last Budget. I have hopes, however, that the Finance Minister will see his way clear to announcing some measure of relief in his budget for the last year of the Second Plan. But this will not be enough. After all, stress is to be laid on the development of small-scale industry, rather than on large industries; and, in this context, there is the need for personal as distinct from corporate incentive.

That is to say, if development rebate and tax holiday for new companies seek to foster the growth of corporate entities, something more will be necessary in respect of small-scale industries, which quite often may not take the form of corporate bodies. So, relief in personal taxation would be desirable; and this is apart from any financial assistance that may be required by the small entrepreneur. To ask for reliefs during a time when Government needs are likely steadily to grow is, I realise, an almost futile case of wishful thinking. But realism in this regard demands the recognition that, without proper encouragement, the growth of small-scale industry is problematical. I am hopeful about Governmental enlightenment in the sphere of taxes, but I am by no means certain about it. What I am sure of is the fact that, whether or no there are reliefs, there must be a moderate voice on the part of ministers as to their tax intentions.

The third factor will be the availability of the raw materials. Small industries can even less afford a reduction in output because of lack of the requisite raw materials. On the one hand, the distributional system for such things as coal and iron will need substantially to be improved. On the other hand, there should occur no delay of consequence in allowing the import of such raw materials as cannot indigenously be found. The allocation of foreign exchange to the private sector needs,

therefore, to be less reluctant and less dilatory. Foreign exchange will also have to be made available for the import of plant and equipment, without which, indeed, the basic raw materials produced by India by the beginning of the Third Plan may not become utilisable.

We come, now, to what I consider to be the last factor, namely, the role of the special financial organisations. The IFC and the SFCs will inevitably need to step up the quantum of their loans and advances. The Scheduled Banks may be expected to be able to finance industry to the tune of, say, Rs 150 crores by way of an annual increase in Advances. The ICICI, I know, will continue to do its good work under the inspired direction of Mr G. L. Mehta. But what of the Re-finance Corporation, of which we heard so much for so long a time? It must necessarily start functioning vigorously. Last of all, I suggest that the new issue market's success must be vouchsafed by much more of underwriting facilities than we have had in the recent past.

To come back to the Rs 2800 crores of investment by the private sector during the Third Plan: the money will probably become available, but will the pre-conditions that I have listed be satisfied? For, money alone cannot bring about development: what is needed is the initiative of the individual entrepreneur, and the initiative of such breed depends on whether or no incentive is provided.

Congress Sub-Committee's Proposals for Third Plan

By
U. N. DHEBAR

PLANNED development in the context of the new border developments has assumed a new shape. When we discussed this matter in the Planning Sub-Committee we were working on the basis of a peaceful national and international atmosphere. Indian Planning has, therefore, to meet the political challenge of aggression along with the economic challenge of poverty and backwardness.

The Planning Sub-Committee in assessing the resources potential had taken into account all possible availabilities. The new burdens of defence, which none can consider as otherwise than legitimate, will have to be met from those availabilities. In my opinion, while it may involve cutting down of developmental expenditure, we have first to be clear about the resources needed for defence, to what extent it is possible to make adjustments within the Plan by reordering priorities and then only think of cutting down developmental expenditure. In a moment of crisis rigid check on expenditure becomes a problem by itself. But I would include that as an item needing proper attention.

The most important factor though not economic is popular reaction. This is an asset of no small magnitude. If the leadership can utilise the people's reactions to the border incursions by China for building up the strength of the country, the deficiencies caused by the diversion of the resources for the defence purposes, or at least that portion of it which remains after the reordering of priorities, can be met by the increased tempo of production and increased tempo of savings. The history of the world wars bear proof that the nations have been prepared to sacrifice a far larger portion of their earnings for purposes of national defence in a national crisis than during peace time.

Basing my views on the twin possibilities mentioned above, I think the Third Plan can proceed on the basis of the resources originally anticipated viz. Rs 10,000 crores.

The Planning Sub-Committee approached the subject of planning as an integral part of the nation's socio-economic activity. It is sometimes forgotten that there is a difference between a principle which determines the direction of our movement and dogma or a doctrinaire approach. Earth rotates round the sun day in and day out with singular regularity. None has charged this rotational movement as a dogma. The sun appears in the morning, winds its appointed course and disappears. Here again none has decried its movement as dogmatic. Man is

expected to speak the truth. It is not considered dogma. These are fundamentals of creation and human ethics. Similarly, Planning has a purpose. It is not merely to produce so much and distribute so much. Production and distribution are both incidental to that purpose. The purpose of Indian planning is not merely materialistic. It is to subserve the end mentioned in our Constitution to attain a social order based upon justice and equity. The Third Plan should take the country a significant step forward in that direction.

It is in that context that the Planning Sub-Committee expressed the need for transforming our economy into a self-generating and self-reliant economy or in other words an economy which can look after further developmental needs from its own resources. The Sub-Committee said "We should recognise that the ultimate solution of the problem of mass poverty lies in transforming our economy into a self-generating and self-reliant progressive economy which depends for its future growth on its own resources and offers social and economic opportunity to all". We can add to the words "mass poverty" the words "effective defence of our frontiers and integrity of our country". In fact, the new situation makes it more imperative for us to work for such transformation with the maximum possible speed and in the minimum possible time.

The Congress is clear that such an economy cannot descend from heavens nor can it be imported from outside or can be brought into being with money borrowed from outside. Such an economy would only be the result of massive national effort to build up the resources required for it.

The most important field of economic operation is agriculture. We cannot look at agriculture merely in the context of our food requirements. Food is the primary need. It is our basic requirement. But agriculture must fulfil other basic requirements viz. (a) increase in production to meet the food needs. (b) to provide for the raw materials needed for industries. (c) to provide for improvement in the standard of living of the rural population and (d) to provide agricultural surpluses to meet the demand for increased resources. Success on the agricultural front is, therefore, the key to all economic progress.

tal goods industries. The Congress feels that the solution can be found in the following categories of works:

- Intensification of agriculture
- Creation of capital and community assets in rural areas
- Development of animal husbandry
- Development of Cottage and small-scale industries
- Distribution of surplus and cultivable waste lands
- Improvement of social services
- Provision of electric power
- Provision for relief works of a productive character.

Broadly this signifies the objectives of the plan. But the objectives cannot be considered independent of the availabilities of the funds. This is the chief problem before all of us. The resources are created in a developing economy as the economy develops, and the tempo of development determines the availabilities in a great measure.

Foremost is the maximum utilisation of our existing resources—manpower and material. This



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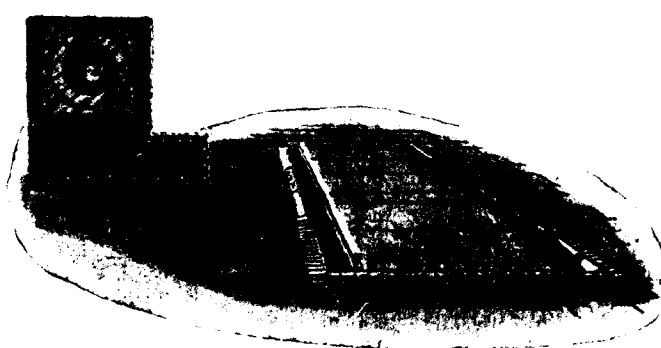
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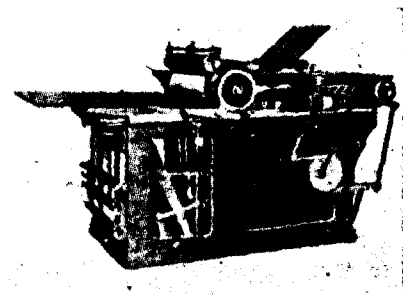
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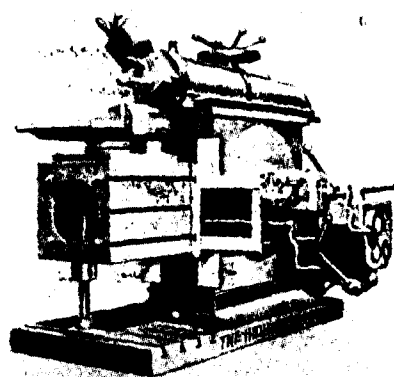
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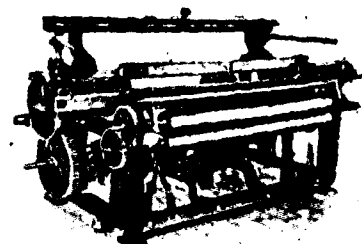
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raises the question of efficiency and economy. There is enough room for both in our country. The problem of economy and individual, group and national efficiency is a problem ultimately of creating a sense of earnestness. It is the task of political organisations in the country to evolve a code. Some progress has been made by the Labour Ministry in the Government of India. But it must be attempted on a national basis. There is so much of indifference, waste and pilfering. Democracy should not brook these if the democracy has to serve its purpose. They must stop if the nation is to progress. Democracy is no obstacle if there is a proper understanding of the principles of democracy. Through education, through a common code of discipline not only at the labour or industrial level but at all levels, through incentives and, lastly, to the extent necessary, through punitive laws, a situation should be developed where resources are saved and maximum utilisation guaranteed. I have no doubt that if this problem is treated with determination at the source the other fields will be cleared without difficulty. Planning begins with economy and efficiency. These are conditions precedent to the success of planning, especially when planning reaches the level of 'take off'. No pilot will leave the airstrip unless he is sure that his craft is fully efficient and so also

his co-pilot. Else there would be a disaster.

It would be a fallacy to bank upon liquid resources always to meet all our needs. If capital is frozen labour, there is no reason why actual labour cannot be converted into resources. The Congress hopes to mobilise these resources by generating other than monetary incentives, which will go to satisfy, in part, the requirement for resources. This is possible, if we link resources with the local services, local developmental projects and development of the over-all economy of the place. We can then expect the people to donate their free labour or labour against payment of less than normal wages. The Congress also envisages the possibility of mobilising substantial resources through the media of the cooperatives and by the efforts of the panchayats. The surplus is spread out in urban and rural areas; as the economy disperses larger and larger contributions can be expected from, and should be made by, both the urban and rural population.

But the most important contribution has to come from the savings against increased production both in the agricultural as well as industrial field. The Congress hopes that it will be possible to secure savings while allowing for some increase in the standard of living as an incentive. The question is to carry the message to the people

that whatever they save is going to return to them manifold. Savings are intended for re-investment. They increase the potential for further economy. It should be realised that India has yet to show that it can make an effort equivalent to its needs. Complaints against heavy taxation and indifference to save only reveal our ignorance as to the level of effort the other countries are making.

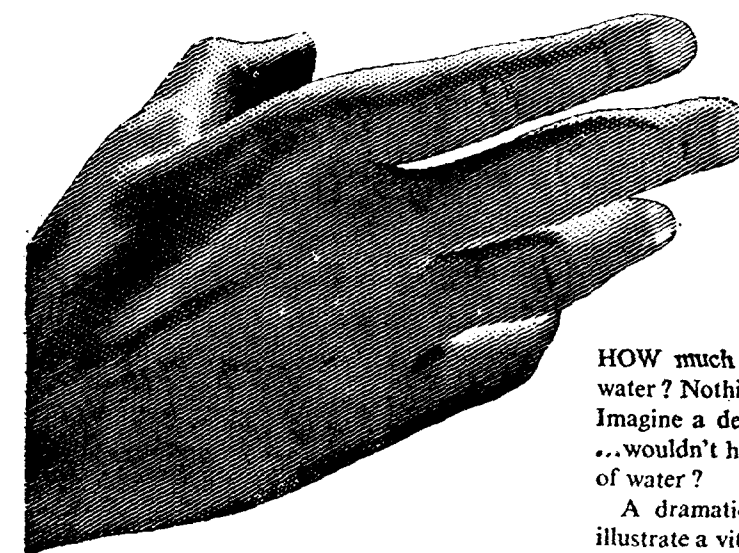
To assure such a rate of saving that would assume a rate of growth of the size of 6 per cent which is the minimum required we must aim at an investment of 11 per cent to 14 per cent of our national income in the Third Five-Year Plan period. It will undoubtedly be a hard effort. It will mean some increase in taxation; some curb on consumption; some regulation of prices and wages. But once it is borne for a period or so we shall have generated a sufficient potential when the wheels of the economy will move on their own rails.

Criticisms have been offered to this approach. Some have styled it as impracticable. Some find in it a lack of proper balance. Criticisms have also been offered on that part of the approach which emphasises the ideological aspects and the criticism has come from a section of the business community as to the role assigned the public sector and from the Swatantra

Party to the Cooperative Sector. These we welcome as the Plan is not designed to be a Congress Plan. A national Plan can only be evolved on the basis of consultation and discussion. The Congress took care to consider the objections in all their aspects before opting for the particular strategy for only an integrated strategy could be successful in a democratic framework. While taking care of the principal objectives of planned development it ensures maximum of results with maximum of cooperation. It is significant however to note that an examination of the problem at the practical level by the business community has confirmed the figure of Third Plan outlay at Rs 10,000 crores. It is also significant to note that the leading co-operators have also opined that the most effective method of advancing cultivation is to promote cooperation. Even the hardheaded businessmen have accepted that Planning while looking to the need of maximum production cannot ignore equitable distribution, unemployment and lack of rudimentary social services especially in the rural areas.

We hope and trust that when the Plan is finally prepared all other doubts will also get solved and the whole of India will be able to claim that it has evolved its Plan and accept it as their own National Plan.

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THE THIRD FIVE YEAR PLAN

By
MADANMOHAN R. RUIA

I AM glad to participate in the symposium which the Editor of *Indian Finance* proposes to have as a part of 1959 Annual Number. It is a good idea that a variety of views are brought together on the same subject, not only to afford a comparative study but also to give a more positive content to the evolving ideas regarding the planning objectives as well as planning techniques. In fact, it is encouraging to note that the possibility as well as the utility of this type of variety in approaches is being more and more widely recognised.

As far as our Federation is concerned, its participation in the study of planning has been a fairly continuous process, especially since Independence. It took an active part when the First Five Year Plan was under formulation. A Draft Note on the Second Five Year Plan was published and it anticipated many of the targets and findings of the official Plan. With regard to Third Five Year Plan also, the Federation is almost the first in the field. In September 1959 the Federation published its Tentative Outline on the Third Five Year Plan, and in November 1959, a Seminar on Planning was organised by the Federation. This publication has concerned itself with the general approach to planning as well as the programmes, priorities and projections necessary for different specific industries. The more important part of this Outline, however, is the basic approach to the larger issues which will have to be faced prior to the detailed formulation of the Third Five Year Plan.

The point of view which has been suggested in the first place starts with the assumption that planning should remain a democratic process in the sense that its preconditions as well as results are approved and even enthusiastically accepted by a large body of the people for whom all these programmes are to be prepared and set to motion. The point of view of the Federation, after assuming this important provision that there should be flexibility and receptivity, both in the general approach as well as specific details of plan formulation has then been set out in the Outline. An attempt to sum up what might be described as credo of the Federation, was made by me at the time of the Seminar on Planning convened by the Federation in November 1959. I said:

"The Federation is of the considered opinion that in the circumstances obtaining in our country, planning does require a broad socio-economic approach. It should mainly provide a general framework to induce self-reliance in individuals and self-growth of the economy. The economic and political strength of any nation revolves round the human element and

the atmosphere in which individuals function and look forward to the future. In economic development lies the surest guarantee for individual freedom and for maintaining our national identity and protecting our national boundaries. To further national development, the policies and programmes should ensure that as far as possible the interest of an individual, qua individual, is placed at the highest practical level. May I add that by and large no one would wish to merely live in a system which ensures rewards or penalties only? It is in the mixture of reward and penalties—reward for effort and penalties for negligence—that the personality of the individual, as also the good of the society, can be promoted. The Federation also believes that it will be folly, to say the least, that because the State as such has an important part to play in underdeveloped economies, the State should assume infinite powers, high and low, over economic activity. Fortunately, we have accepted democratic institutions and it is inherent in this system that the powers of the State are limited and effectively checked. On the other hand, what as a nation we must realise is the imperative need to strengthen ourselves against the possible misuse of power against us by other States.

"Another matter which, I am sure, will engage your attention is the lessons that can be drawn from the first two Plans in regard to the objectives and adopting suitable measures to achieve them. To my mind, the basic questions are how to achieve higher levels of economic activity in desired fields without undue pre-occupation as to whether such activity should be undertaken by the public or private sector; and how to streamline our administration in such wise that its relations, direct and indirect, with economic functions assist and not hold up development. Having accepted all round economic development as the goal to improve the standard of living of the people, it will be self-defeating to think of any programme which restricts individual effort, though socially beneficial, on the mere ground that some theory or the other enjoins a different approach or the utilisation of alternative agencies. I make bold to say that in the fuller light in which we are able today to view economic development in our country, there can be no question or controversy either as regards the utility of private enterprise or the place of the State as an agency for development. Both have a

part to play and the role should not be predetermined on rigid lines."

A general matter which would naturally concern us while thinking about any Plan is the availability as well as the utilisation of resources. In this matter, the Federation has stated that the size of the Third Plan should be sufficiently in advance of that of the outlay of the Second Plan so as to ensure a reasonably high rate of increase, both of the gross national product as well as per capita income and output. The developmental process would have to be simultaneously induced by means of sizable investment and invocation of enthusiasm and leadership along the widest economic front possible. The Tentative Outline has discussed the implications and possible distribution of an investment of Rs 10,000 crores. This discussion would naturally not be isolated from the experience of past trends as well as available and potential resources. The Federation, however, feels that in order to render this extent of investment possible, a fairly widespread change

in the economic climate as well as economic administration of the country would be a pre-requisite condition. A large sized Plan can only result if resources are allowed to be generated more in the form of savings and capital formation in a direct manner. Further, this phenomenon can be only induced if suitable changes some of which may be quite widespread in character, can be brought about in the measures of taxation as well as procedures of administration. The Federation feels that these two factors will have a crucial influence on the extent of which the Third Five Year Plan will be able to induce self-generating growth in the Indian economy. If these two conditions can be quickly and fully incorporated in the formulation as well as the execution of the Third Plan, there is no doubt that the Third Five Year Plan as it emerges and develops should be of a size which is not only the minimum desired considering the conditions of endemic poverty of the Indian economy but within sight of the stage when increases in production and national income become almost automatic.

At the present stage of public discussion regarding the priorities to be adopted in the individual allocations for the Third Five Year Plan, it would appear that



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some kind of conflict or incompatibility is sought to be brought about between the development of industry and say, agriculture or power or transport. Almost the entire process of planning is to balance the clamant demands of all these essential aspects of economic growth. It is, however, necessary not to view the claims being made for one type of investment or another as some kind of advocacy of vested interests or lobbies. The Planning Commission will have to adopt a much wider view in spite of its close proximity with the different Ministries urging the adoption of their own specific programmes. The emphasis on industry to be adopted during the Third Plan will have to be categorical as well as massive and broad-based. This is necessary both in terms of the long-term projections of production and productivity as also in terms of import substitution and the social absorption of industrial skills and attitudes. Agriculture will, no doubt, have to make ample strides during the next Plan so as to bring it on par, as far as possible, with respect of yields as well as total production with the methods and techniques of industrial production; this does not necessarily mean that mechanical means are to be adopted wholesale in agriculture but what is more important is that the attitude of working hard for a surplus has to be inculcated through proper incentives in the agricultural sector.

What I should like to emphasise is that when a certain pattern of allocation is suggested for a five year plan the outlook should remain practical and at the same time sufficiently flexible so as to be able to meet short-term crises without too much disruption.

Supreme importance must be attached to increasing agricultural production. It should not be forgotten that the share of agriculture in our national income is sizeable—about half. The prosperity or otherwise of the agricultural sector is bound to be reflected in our national income and well-being. When we are thinking in terms of improving the standard of living of the masses, this standard will translate itself to meeting the demand for foodstuffs and other allied necessities like textiles, soaps, shoes, etc., the agricultural component of which is high. Again, neither industrial nor agricultural development is possible unless concurrently, if possible in advance, there occurs appreciable development of transport and the like which has come to be known as the "infra-structure development" of the economy.

The Union Minister of Finance in his inaugural address at the Federation's Seminar on Planning under-lined the need to adopt the pragmatic and democratic method of planning, at the same time keeping in view the basic socio-economic objectives as adopted by the

nation. He said, "The practice or art of planning is something that must evolve continuously and there has to be a frequent examination and appraisal of what has been achieved and what more can be achieved and how. The most valuable resource for planning is the will to work together and to find by concerted effort the answer to the many problems that cannot but arise." He also described planning as "an attempt to get the maximum out of the resources available and needed to find ways and means of enlarging these resources." In the light of these remarks what the Federation might have to urge becomes much clearer. It is felt that for any Plan to be reasonably successful it should provide sufficient incentives which would invoke growing efforts. At this point it should be recognised that economic incentives, particularly for the effort of saving or the setting up of new enterprises have their part to play. Other social incentives have naturally their own importance but where certain tasks have to be completed within the existing social system the importance of economic incentives can be minimised only with detriment to effort, enthusiasm and willingness to undertake responsibilities and risks.

The second matter which is also closely linked with the question of enthusiasm and sustained effort is

the procedure and attitude of the administrative machinery, particularly that connected with the executive aspects of planned development not only in industry but also in agriculture and other social fields. An accelerated tempo has been agreed to be the necessary condition for the Third Five Year Plan both in the industrial as well as the agricultural fields. As far as greater, more widespread and more intensified industrialisation is concerned, it would be necessary, in the first place, to so modify fiscal policy as to enable savings to find their way in constructive enterprises, and also that the settling up of the largest number of industrial units within the larger framework of the Plan should not be impeded by the delays of administrative and regulative procedures. In this matter newer administrative techniques and aptitudes will have to be envisaged and adopted and it would really be useful if some careful thought is given to this matter now, so that by the time we are ready to embark on the Third Plan we do have a set or a code of administrative behaviour whereby the best is drawn out of the limited resources in men, machines and material that we have. A similar dynamism will also have to be induced in the administration of agricultural and other moral programmes so as to lead to a sustained increase in production and improvement in techniques of production.

COAL — the Problem

The coal industry has throughout the years been able to meet India's demands for coal. In addition, the private sector of the coal industry have been able to effect exports so as to earn foreign exchange to the extent of about Rs. 5 crores annually.

Early in 1959 the coal industry assessed the position of the future demand for coal and advised Government that an extreme shortage would develop unless immediate steps were taken to rectify the position. This shortage of coal has already occurred and a number of factories are to-day either closed or running with production curtailed.

It is the earnest desire of the private sector of the coal industry to meet the ever increasing demands of the Steel Plants and of the industrial consumers throughout the country, and they wish to be able to play their part by expanding production from existing collieries and by opening new mines. The full facts of the case have been passed on to Government, and all that is required is the necessary incentive and encouragement for the private sector to fulfil their plans. It is asked that official encouragement should be given immediately since a great deal of planning is required to attain the vast targets ahead.

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Foreign Exchange Needs of the Third Plan

Some Considerations for Long Range Programming of Development

By
M. S. PARTHASARATHI

THE Third Five-Year Plan is on the anvil, and a great deal of discussion has been lately going on as its size, scope and composition. It is, however, becoming increasingly clear, as will be demonstrated in the course of this article, that an investment of around Rs 10,000 crores is about the minimum the economic situation calls for. Indeed, it is heartening to note that there is widespread recognition of the need for some bold planning, as evidenced in the proposals for the Third Plan put forward by the Federation of Indian Chambers of Commerce and Industry, which has supported an investment of Rs 10,000 crores in the five years 1961-66. In a way, this is not surprising since we have been only too often reminded that, like Alice in Wonderland, India will have to keep running pretty fast just to maintain present living standards. If that was the situation in 1956 when the Second Plan was drawn up, and when population was estimated to be rising 1.25 per cent a year, the magnitude of the effort now required can be easily imagined from the fact that our population is now estimated to be growing at 1.8 per cent a year.

It is evident that India cannot allow the size of the Third Plan to be fixed by the amount of domestic resources which can right now be reliably foreseen. To do so will very probably mean condemning the people to enduring the miseries of a stagnant economy. This is clearly demonstrated in Table 1 which illustrated the wayward and slow growth of the Indian economy if the Third and subsequent Five-Year Plans are to be limited to available domestic resources. The projection shown, of course, assumes that some sort of balanced development will be attempted to make the economy as a whole viable and that investment will not be concentrated in sectors where returns are higher in the short run to obtain a higher national income immediately. This assumption is entirely valid since any such lopsided investment cannot be described as generating real economic growth. It is clear that restricting investment to internal savings will give rise to an entirely inadequate rate of growth of national income, namely, an average of 3.5 per cent a year, while population will be growing at 1.8 per cent, giving rise to only a nominal increase in per capita incomes, which cannot be reflected in any visible improvement in the living levels. If population were to rise somewhat faster than 1.8 per cent, or if for some other reason demands on consumption should reduce the marginal pro-

pensity to save to below 20 per cent of additions to national income, annual national income growth will tend to stagnate at around 3 per cent a year.

It is at this stage necessary to explain some of the reasoning and assumptions underlying Table 1, since a good part of it will be relevant to the subsequent tables also. National income in 1960-61 is estimated to be 20 per cent higher than in 1955-56, as against the Second Plan target of a 25 per cent increase. Projections of capital-output ratios are based on what appears to be likely from the experience gained in the First Plan

and in the Second Plan to date. No foreign capital inflows have been assumed. However, it can be seen that any small amounts coming in will not make much difference to the overall trend, particularly in view of the fact that the marginal propensity to save is likely to be somewhat less than what has been assumed. Under these conditions it is evident that it will take 20 years for national income to double, not at all an achievement to be proud of, and it will take much longer to double per capita income and very much longer to double per capita consumption levels.

TABLE I
Projection of India's National Income Growth, with a 20 per cent Marginal Propensity to Save.

Year	National Income	Savings available	Savings as % of N.I.	(Rs. Crores in 1956-57 Prices).		
				Capital out-put ratio	N.I. Increase in next year	N.I. increase as %
1	2	3	4	5	6	7
1960-61	12940	1160	9.0	2.75:1	420	3.2
1961-62	13360	1240	9.3	2.80:1	440	3.3
1962-63	13800	1330	9.6	2.85:1	470	3.4
1963-64	14270	1420	10.0	2.90:1	490	3.4
1964-65	14760	1520	10.3	2.95:1	520	3.5
1965-66	15280	1620	10.6	3.00:1	540	3.5
1966-67	15820	1730	10.9	3.05:1	570	3.6
1967-68	16390	1840	11.2	3.10:1	590	3.6
1968-69	16980	1960	11.5	3.15:1	620	3.7
1969-70	17600	2080	11.8	3.20:1	650	3.7
1970-71	18250	2210	12.1	3.25:1	680	3.7
1971-72	18930	2350	12.4	3.30:1	710	3.8
1972-73	19640	2490	12.7	3.35:1	740	3.8
1973-74	20380	2640	13.0	3.40:1	750	3.8
1974-75	21160	2800	13.2	3.45:1	810	3.8
1975-76	21970	2960	13.5	3.50:1	850	3.9
1976-77	22820	3130	13.7	3.50:1	890	3.9
1977-78	23710	3310	14.0	3.50:1	950	4.0
1978-79	24660	3500	14.2	3.50:1	1000	4.0
1979-80	25660	3700	14.4	3.50:1	1060	4.1
1980-81	26720	3910	14.6	3.50:1	1180	4.2
1981-82	27840	4130	14.8	3.50:1	1180	4.2

From the foregoing it can be easily guessed that if the Third Plan is confined to foreseeable resources, primarily domestic resources, it can make no impression on the economy as a whole or on the large masses of the people, nor even lay the foundation for accelerated growth in the years to come. On the contrary, a modest Plan at this juncture will make almost compulsory far greater efforts subsequently. The Third Plan has, therefore, to be devised to secure a sizable increase in the national income in next five years, since only sizable additions to the national income in these years can add to the savings potential in the

economy and set in motion a self-generating process of economic development, which can in course of time be expected to become self-financing and self-accelerating. Small, marginal increase in national income cannot set in motion such a process since a major part of the additions to income will be diverted to meet the additional demands for consumption arising from people's expectations for improvement in their living conditions and the increases in population over time.

For the purpose of our present study it is assumed that the Third Plan will aim at a 4.5 per cent increase in national income every

year, that is, to double national income in about 15 years. The Second Plan, it may be recalled, had also envisaged the doubling of national income in about the same period from the 1960-61 level. It must, however, be re-emphasised that the target as outlined in this article is much more modest than the Planning Commission's target as contemplated in the Second Plan, since population growth is now placed at 1.8 per cent with every chance of this rate going up in the next few years, in contrast to the growth rates assumed in the Second Plan. The Planning Commission had then forecast a 12.5 per cent growth in the decade 1951-60, 13.3 per cent in 1961-70, and 14.0 per cent in 1971-80. The higher rate of population growth has made a quicker pace of economic development urgent while making even the rate of growth contemplated earlier more difficult of achievement. Since a more modest goal cannot, for reasons already discussed, be set, the Planning Commission has the unenviable task of trying to mobilise as much domestic resources as possible to reduce to the minimum dependence on foreign savings for our investment purposes.

In spite of what has been said above, there may be those who will still argue that no foreign assistance by way of capital inflows is at all absolutely essential, as has been made out in the earlier paragraphs, to set in motion the process of Indian economic growth. Even they, however, do not deny that India will have to depend to a great extent on imports from foreign countries for her requirements of many investment goods, principally machine-tools and machinery, for some years to come. They will also agree that at this stage of economic development the country can very well do with some foreign technical assistance, whether rendered free or on payment, for getting projects going in India and for training Indians abroad. But what they cannot understand is why foreign aid by way of inflow of capital should be necessary when so much of the country's own resources remains unutilised, particularly in the form of underemployed and unemployed labour which can be put to work on many projects without involving any foreign exchange outlay. They, of course, concede that the inflow of foreign capital can conventionally accelerate the pace of growth or at least mitigate the strains and stresses involved in transforming a rather static economy into a dynamic one.

Now, three factors are essential to set in motion a process of eco-

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economic growth; sufficient savings to finance investments of the magnitude needed to satisfy the aspirations of a free people who cannot be squeezed without limit, sufficient supplies of capital goods to transform into investment the savings so mobilised, and sufficient technical and managerial personnel to operate the projects. It is universally acknowledged that India is now short of capital goods and technical personnel. But there is a widespread belief that she should be able to pay for all her imports of capital goods and technical services by the export of her products. It is, of course, well known that our export drive has not been making much headway, but this is facetiously ascribed to the faults of either our exporters or the manufacturers of export commodities. Behind this attitude is the assumption that if only everything were all right with our exporters and export manufacturers, the country would be able to export enough to pay for all the imports needed for both normal and developmental requirements.

Even a cursory examination of the conditions in which the process of economic development has to be initiated in backward countries will show how unrealistic this assumption is. The exports of underdeveloped countries are generally raw materials and food stuffs. Even in the first few years the process of economic development causes the demand for foodstuffs to rise. This increasing domestic demand can be met only by drawing off supplies from export markets, unless internal production rises sufficiently. Internal food output cannot generally rise fast enough except where large scale farming according to modern practices can displace traditional farming for subsistence. This is next to impossible in a country like India with its population pressure. Hence, when a backward country with a population problem starts on the road to economic development, its food exports fall if it had been an exporter of food, or it begins to depend, either for the first time or increasingly, depending on whether it had till then been self-sufficient or not, on food imports from abroad. The solution of the obstacles to increasing the production of food is itself part of the overall problem of economic development. These considerations hold good in regard to the export of raw materials also, whether agricultural or mineral, since, apart from the problems of increasing production, international competition is very severe and efforts to expand exports generally clash with similar attempts by other underdeveloped countries and quite often give rise to unfavourable price movements, defeating the real purpose of any export drive. Attempts to export manufactured consumer goods also will face competition from the established industrial countries and will not bring in much exchange earnings, commensurate to the efforts called

for. It is, therefore, a case of begging the question to suggest that a country like India on the threshold of economic development can expand her traditional exports or enter new export lines to pay for all the import requirements of economic development.

One further point still remains to be examined. What harm is there, one may ask, in putting to work our surplus labour force on capital projects? In the first place, such a utilisation of idle labour, while certainly laudable in itself, cannot obviously substitute for investment projects involving imported investment goods. In fact, it may be pointed out in addition, our whole analysis is based on the assumption that all available domestic resources are being mobilised and put to the best possible use. Secondly, there are serious limits to how far underemployed labour can be put to work on a mass scale without further adding to the inflationary pressures generated by the other activities of economic development. Clearly a major part of the additional money incomes of such labour will go into consumption. To put to work unemployed and underemployed labour on labour-intensive projects will, therefore, not be as simple as is sometimes believed.

It is now necessary to visualise briefly what the Indian economic scene will look like in 1960-61, the base year for the Third Plan, in contrast to the targets envisioned in the Second Plan. The foreign exchange crisis which the Second Plan has had to weather has highlighted the fact that the country has not been able to save as much as had been considered feasible when the Second Plan was drawn up. The result will probably be that, as against an investment of about Rs 3800 crores (involving a total outlay of Rs 4800 crores) in 1956-61 in the public sector, investment is likely to be only Rs 3600 crores out of a total probable outlay of Rs 4500 crores. And this in spite of an estimated total foreign assistance to the public sector alone in excess of Rs 1000 crores against the Rs 800 crores relied on when the Plan was drawn up. One of the contributory factors to lower savings has, of course, been the higher rate of population growth than was expected. India's population is now estimated to be rising at 1.8 per cent a year as against the Second Plan estimate of a 1.25 per cent average for the whole decade. Consequently a greater share of increases in national income has been going into consumption.

As a result of all these developments, National income in 1960-61 may be only 20 per cent larger than in 1955-56 as against the Second Plan target of a 25 per cent rise. A more serious implication is that the marginal propensity to consume has been higher than the 75 per cent assumed implicitly in the Second Plan, if anything above 80 per cent. Con-

sequently only about 20 per cent of the additional incomes have been saved for further investment representing a marginal rate of saving of 20 per cent. In the result the proportion of national income saved is unlikely to have risen higher than 9.0 per cent in 1960-61, whereas the Second Plan had postulated an increase from 7.0 per cent in 1955-56 to 9.7 per cent in 1960-61. The Third Plan will, therefore, have to start on a much smaller domestic savings base than what the planners had contemplated when they drew up the Second Plan. Further, total net investment in the Second Plan, in the public and private sectors, is not now expected to exceed Rs 6000 crores, giving a capital-output ratio of approximately 2.6:1 against 2.3:1 assumed in the original Plan. From this it can be deduced that the capital-output ratio for the Third Plan will have to be somewhat higher than the 2.62:1 envisaged by the Planning Commission in 1956. The ratio is now more likely to be 2.9 or 3.0:1. For the purpose of our present study the more favourable ratio of 2.9:1 is

assumed since this is sufficient to highlight the magnitude of the problem.

Table 2 presents a picture of India's national income, savings and investments likely to be required to maintain a steady 4.5 per cent annual rate of growth in national income, on the basis of a marginal propensity to save of 20 per cent. Column 8 of this table gives a rough idea of how short savings are likely to be of investment requirements. It is clear that for a total Third Plan investment of roughly Rs 9680 crores, in 1956-57 prices, required to generate a 4.5 per cent annual growth, domestic savings are likely to amount just to Rs 7670 crores, indicating a shortage of roughly Rs 2010 crores in resources, which can only be made up by inflow of resources from abroad in the form of private investment, loans and/or grants. This figure makes no allowance for repayments on loans already contracted which may fall due in the course of the Third Plan years. If those are added, the amount should be above Rs 2500 crores.

TABLE II.
Projection of India's National Income and Related Data, with a Marginal Propensity to Save of 20 per cent.
(Rs. Crores in 1956-57 Prices).

Year	National Income	N.I. increases for next year	Capital output ratio	Investment needed	Savings available	Savings as % of N.I.	Gap
1	2	3	4	5	6	7	8
1960-61	12940	580	2.75:1	1600	1160	9.0	440
1961-62	13520	610	2.80	1710	1280	9.5	430
1962-63	14130	640	2.85	1820	1400	9.9	420
1963-64	14770	660	2.90	1920	1530	10.4	390
1964-65	15430	690	2.95	2040	1660	10.8	380
1965-66	16120	730	3.00	2190	1800	11.2	390
1966-67	16850	760	3.05	2320	1940	11.5	380
1967-68	17610	790	3.10	2450	2090	11.9	360
1968-69	18400	830	3.15	2610	2250	12.2	360
1969-70	19230	870	3.20	2780	2420	12.6	360
1970-71	20100	900	3.25	2920	2590	12.9	330
1971-72	21000	950	3.30	3130	2770	13.2	360
1972-73	21950	990	3.35	3320	2960	13.5	360
1973-74	22940	1030	3.40	3500	3160	13.8	340
1974-75	23970	1080	3.45	3720	3370	14.1	350
1975-76	25050	1130	3.50	3950	3600	14.4	350
1976-77	26180	1180	3.50	4130	3840	14.7	290
1977-78	27360	1230	3.50	4310	4080	14.9	230
1978-79	28590	1290	3.50	4520	4340	15.2	180
1979-80	29880	1340	3.50	4690	4610	15.4	80
1980-81	31220	1400	3.50	4900	4890	15.7	10
1981-82	32620	1470	3.50	5140	5180	15.9	...

However, the assumption of Table 2 may not prove correct since population is now estimated to be rising at 1.8 per cent a year. In fact, official thinking on the Third Plan appears to be proceeding on the basis of a possible annual rise of 2.0 per cent. In consequence the marginal rate of savings may be as low as 15 per cent of annual additions to the national income. Such a low marginal rate of savings can be contemplated only with the gravest misgivings. For that will mean either a slowing down of the rate of growth or a much greater reliance on foreign assistance to maintain a 4.5 per cent rate of growth. Table 3 presents the

near-disastrous consequences of the country accomplishing only a marginal rate of saving of 15 per cent. It is clear that if for any reason marginal savings fall so low the gap between possible domestic savings and investments likely to be required for a 4.5 per cent annual rise in national income will keep on increasing. In fact it will be absolutely impossible to get foreign assistance to maintain a steady rate of growth. The conclusion is inescapable that even if population were to rise by 2.0 per cent a year as is now estimated, efforts to mobilise a marginal rate of savings of at least 20 per cent cannot be allowed to come to nought.

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Table 4 presents a situation in which the Indian economy would be progressing in the way it was expected to develop in the Second Plan when it was drawn up, that is, on the basis of a marginal rate of saving of 25 per cent. It is obvious that India would

be able to dispense with all necessity of foreign aid in the form of capital inflows in the shortest possible time only under that assumption. In this respect the Second Plan was rightly conceived, and every support ought to be extended to efforts to maximise the savings ratio in the future.

The broad analysis of the preceding paragraphs give rise to the conclusion that an outlay of at least Rs 9680 crores in 1956-57 prices will be needed to maintain an annual national income increase of 4.5 per cent during the Third Plan. This figure compares pretty favourably with the figure of Rs 10000 crores of investment in 1957-58 prices in 1961-66 now being publicly discussed. The wholesale price level in 1957-58 was almost 4 per cent higher than in 1956-57. But it is difficult to divine how an annual national income increase of 6 per cent is proposed to be achieved with this investment. Certainly our own experience in the last few years does not warrant such optimism. Such a sizeable increase seems all the more improbable in view of the current emphasis on capital-intensive industries like machine-tools, machine-building, and steel.

A note of caution must be sounded here that the foregoing analysis is only exploratory designed to assess the probable magnitude rather than an essay in precise measurement of the foreign exchange deficit to be expected every year. In addition we have assumed an overall capital-output ratio for the economy as a whole which can often be misinterpreted. Also for the sake of simplicity of calculation it has been assumed, that the average time lag between investment and output is only one year, whereas it may actually be two years or even slightly longer. Despite these shortcomings, however, our estimates are probably as reliable as any other estimate which can be reached by more detailed calculations, in view of the present state of knowledge of the inter-relationships in the Indian economy.

been very encouraging. Certainly no further foreign exchange saving from import cuts can be relied on.

Similarly attempts to pay for all our import requirements by stepping up exports will be faced with many obstacles. In fact past attempts by the Government of India to restrain domestic consumption with a view to exporting the commodities so released have brought out that what is not domestically consumed out of current domestic output cannot be easily diverted to the export market to earn for the country much-needed foreign exchange. On the other hand, to the extent goods produced are not currently absorbed by the market, a recession has invariably been the result of curbs on the consumption of domestic products. This response of output to curbs on consumption has a wider significance. Attempts to raise savings by restraining consumption on any mass scale will be thwarted if the goods released by domestic consumers are not exported to pay for imports of capital goods. In fact this is one of the dilemmas which underdeveloped countries have to face. In the first place the savings ratio cannot be raised since current consumption levels are already low. In the second place, even if savings can be increased, they are in the form of consumer goods or raw materials, which cannot directly go into investment, which have to be exported, in the face of severe competition, to pay for the import of investment goods. Thirdly, attempts to hold down consumption, when they do not lead to a successful increase in exports, often have an adverse effect on the economy of the country.

In conclusion, it must be pointed out that the gap in foreign exchange for the Third Plan, tentatively estimated in the course of this analysis, is based on maximum-efforts to mobilise all available domestic savings for the financing of the Plan. As already explained some part of this saving may be in the form of consumer goods, in which case they will have to be successfully sold abroad in exchange for investment goods for the Plan. In case these goods are not sold abroad, mere mobilisation of domestic savings in the form of financial resources will not help. To that extent additional foreign exchange by way of aid will be needed to pay for the Plan. These are unpalatable facts, but they need to be realised before any meaningful efforts at planning can take place.

TABLE III.
Projection of India's National Income and Related Data, with a Marginal Propensity to Save of 15 per cent.

(Rs. Crores in 1956-57 Prices.)

Year	National N.I. increases income for next year	Capital output	Investment needed	Savings available % of N.I.	Savings as % of N.I.	Gap
1	2	3	4	5	6	7
1960-61	12940	580	2.75:1	1600	1160	9.0
1961-62	13520	610	2.80:1	1710	1250	9.2
1962-63	14130	640	2.85:1	1820	1340	9.5
1963-64	14770	660	2.90:1	1920	1440	9.7
1964-65	15430	690	2.95:1	2040	1540	10.0
1965-66	16120	730	3.00:1	2190	1680	10.4
1966-67	16850	760	3.05:1	2320	1790	10.6
1967-68	17610	790	3.10:1	2450	1900	10.8
1968-69	18400	830	3.15:1	2610	2020	11.0
1969-70	19230	870	3.20:1	2780	2140	11.1
1970-71	20100	900	3.25:1	2920	2270	11.3
1971-72	21000	950	3.30:1	3130	2410	11.5
1972-73	21950	990	3.35:1	3320	2550	11.6
1973-74	22940	1030	3.40:1	3500	2700	11.8
1974-75	23970	1080	3.45:1	3720	2850	11.9
1975-76	25050	1130	3.50:1	3950	3010	12.0
1976-77	26180	1180	3.50:1	4130	3180	12.1
1977-78	27360	1230	3.50:1	4310	3360	12.3
1978-79	28590	1290	3.50:1	4520	3540	12.4
1979-80	29880	1340	3.50:1	4690	3730	12.5
1980-81	31220	1400	3.50:1	4900	3930	12.6
1981-82	32620	1470	3.50:1	5140	4140	12.7

TABLE IV.
Projection of India's National Income, Investment Requirements, Savings and Related Data, with a Marginal Propensity to Save of 25 per cent.

(Rs. Crores in 1956-57 Prices.)

Year	National N.I. increases income for next year	Capital output	Investment needed	Savings available % of N.I.	Savings as % of N.I.	Gap
1	2	3	4	5	6	7
1960-61	12940	580	2.75:1	1600	1160	9.0
1961-62	13520	610	2.80:1	1710	1300	9.6
1962-63	14130	640	2.85:1	1820	1450	10.3
1963-64	14770	660	2.90:1	1920	1610	10.9
1964-65	15430	690	2.95:1	2040	1770	11.4
1965-66	16120	730	3.00:1	2190	1940	12.0
1966-67	16850	760	3.05:1	2320	2120	12.6
1967-68	17610	790	3.10:1	2450	2310	13.1
1968-69	18400	830	3.15:1	2610	2510	13.6
1969-70	19230	870	3.20:1	2780	2720	14.1
1970-71	20100	900	3.25:1	2920	2940	14.6
1971-72	21000	950	3.30:1	3130	3160	15.0
1972-73	21950	990	3.35:1	3320	3400	15.5
1973-74	22940	1030	3.40:1	3500	3650	15.9
1974-75	23970	1080	3.45:1	3720	3910	16.3
1975-76	25050	1130	3.50:1	3950	4180	16.7
1976-77	26180	1180	3.50:1	4130	4460	17.0
1977-78	27360	1230	3.50:1	4310	4750	17.4
1978-79	28590	1290	3.50:1	4520	5060	17.7
1979-80	29880	1340	3.50:1	4690	5380	18.0
1980-81	31220	1400	3.50:1	4900	5710	18.3
1981-82	32620	1470	3.50:1	5140	6060	18.6

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EXPORTS IN THE THIRD PLAN

By

J. B. CONDLIFFE

THERE is a strongly nationalist element in economic planning and in the monetary type of analysis by which it proceeds. India is no exception to the rule. Nationalism is one of the powerful motives in its planning and since independence planning has been a principal outlet for nationalist feeling. The emphasis of a planned system is inevitably on the home market since only this can be controlled. The external balance of payments is recognised as a limiting factor in the planning, but it is not allowed to dominate. The procedure is first to calculate the Plan targets in terms of national income and the investment necessary to realise it. This calculation is of course built up from many component elements; but its implications in terms of both domestic financial resources and of the foreign balance tend to be consequential. Clearly the targets must bear a practical relation both to domestic resources and to the foreign balance, but both are stretched and fitted to the targets rather than the reverse.

Projection of the foreign balance over a planned period is not a simple operation. Experience in the Second Five Year Plan shows that it is easy, apart altogether from cyclical fluctuations, to over-estimate exports and under-estimate imports. Not only are estimates of these magnitudes liable to be optimistic in the aggregate, the phasing of payments and receipts may lead to embarrassment. The foreign exchange crisis which developed in 1957 contained both these elements. The implications for import needs and export capacities of a rapid programme of industrialisation had not been accurately foreseen; but in addition the private sector's import demands made such early and large inroads upon available exchange reserves that the demands of the public sector had to be reconsidered and re-phased.

In planning its foreign balance, a country may hope to increase its exports and attract foreign aid, in the form of grants or loans. But the only item in the balance which it can be sure of controlling is imports. In a period of rapid industrialisation certain import items of heavy and expensive equipment are inescapable. As development takes hold, domestic demands for both consumer and producer goods inevitably increase. There is less to export and more demand for imports. Therefore tight controls are imposed on imports and every effort is made to satisfy demand from domestic sources. There is a protectionist element in such import controls which is not unwelcome to the developing industries. Even in the older manufacturing countries whose exporting industries are hit by such drastic import controls there is widespread understanding

and sympathy for the countries which are trying to industrialise. The infant industry argument is generally accepted. But it can be over-used. Other countries have their own nationalisms. India is not the only, though from many points of view it may be the most important, developing country. It is reasonable to expect a tolerant and liberal attitude from more mature industrial countries; but it is unreasonable to expect that no country shall be allowed to practise economic nationalism except one's own. There is, therefore, a limit beyond which it is neither prudent nor economic to push import restriction.

It is on the side of receipts, however, that the hazards of forecasting the external balance are greatest. If the worst comes to the worst a country must cut its coat according to the cloth available and import only what it can pay for. The interest of planners as distinct from administrators, however, must lie in maximising receipts rather than minimising payments. This paper is, therefore, concerned with exports and foreign aid, rather than with imports. It is not an attempt to forecast the probable magnitudes in these items of the balance of payments. The Minister of Finance pointed out recently that it is futile to attempt such forecasts until the order of magnitude of the governing targets in the Third Five Year Plan has been determined. It is a safe assumption, however, that the Plan will call for development targets that will strain the foreign exchange likely to be available to buy the imports necessary to realise those targets. India will need, and can use, all the foreign aid it is likely to get and all the export receipts it can mobilise. It is in the nature of planning that the availability of foreign exchange is always a bottleneck of development.

The main argument of this paper is concerned with exports; but first it is necessary to consider certain aspects of foreign aid. India receives large amounts of foreign aid from many sources. This is a function partly of her size, partly of her ability to formulate and execute projects that can use foreign aid, partly of her strategic situation. But this is not the whole explanation. In so far as the aid comes in the form of loans rather than grants, as most of it does, it is a function of the lenders' faith in India's stability and promise of repayment. This means faith in India's ability to produce future exports.

To state this is to emphasise the importance that attaches to the economic as well as the political elements of stability and in particular to monetary and fiscal stability. The first calculation a potential lender must make is of a borrower's capacity to repay a loan. This is as true when the loan is in the form of a trade agreement or extended credit terms as when it is a straight financial transaction. What comes in as imports must go out in the long run as exports. The ability to attract loans, therefore, is simply the anticipated ability to export. Nothing destroys such ability faster than inflationary finance. A country which expects to attract foreign loans must keep its budget in reasonable balance and its currency under tight control. India owes a great deal to the skill of those in the Reserve Bank and the Ministry of Finance who have managed to finance development without destroying fiscal and monetary stability.

A developing country can borrow in many ways. It can sometimes float a loan in a foreign market from private investors on the general credit of the country. Unfortunately this method, by which the older British Dominions built their infrastructure of public works now has very narrow limits. India needs just such funds for general development purposes more than any other form of foreign aid; but loans are now more often tagged to specific projects whose solvency can be earmarked. The need for funds to build what is sometimes called "social overhead capital" and sometimes the "infrastructure" is partially met in these days by grant programmes such as the various U.N., Colombo Plan, and national grant arrangements and by philanthropic grants such as those of the Ford Foundation. To a very limited extent the loans of

the international financial agencies, the World Bank and its offshoots, and the International Monetary Fund, also meet this basic need; but the Bank loans are for specific projects and the Fund purchases are essentially short-term assistance intended to tide over temporary balance of payments stringencies. There is no rapidly available means of raising funds from private investors on the credit of the government for purposes such as education, communications, roads, ports, railroads and other services which are essential to development but cannot always be made into self-contained and self-financing projects.

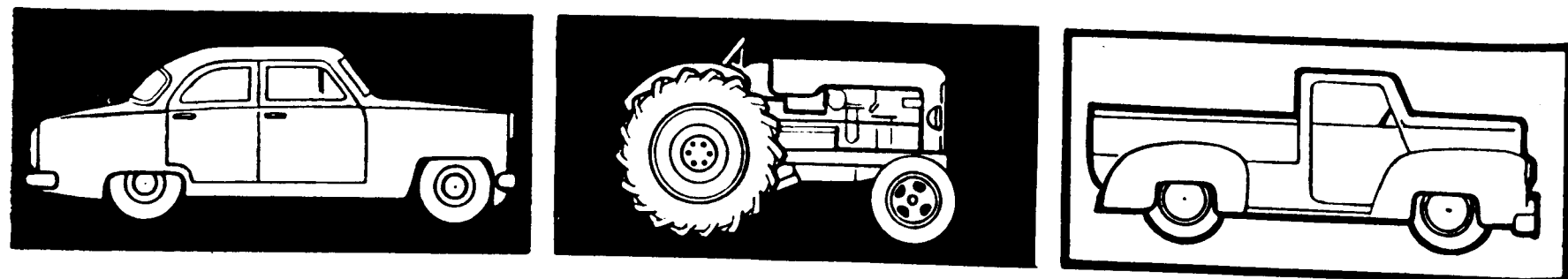
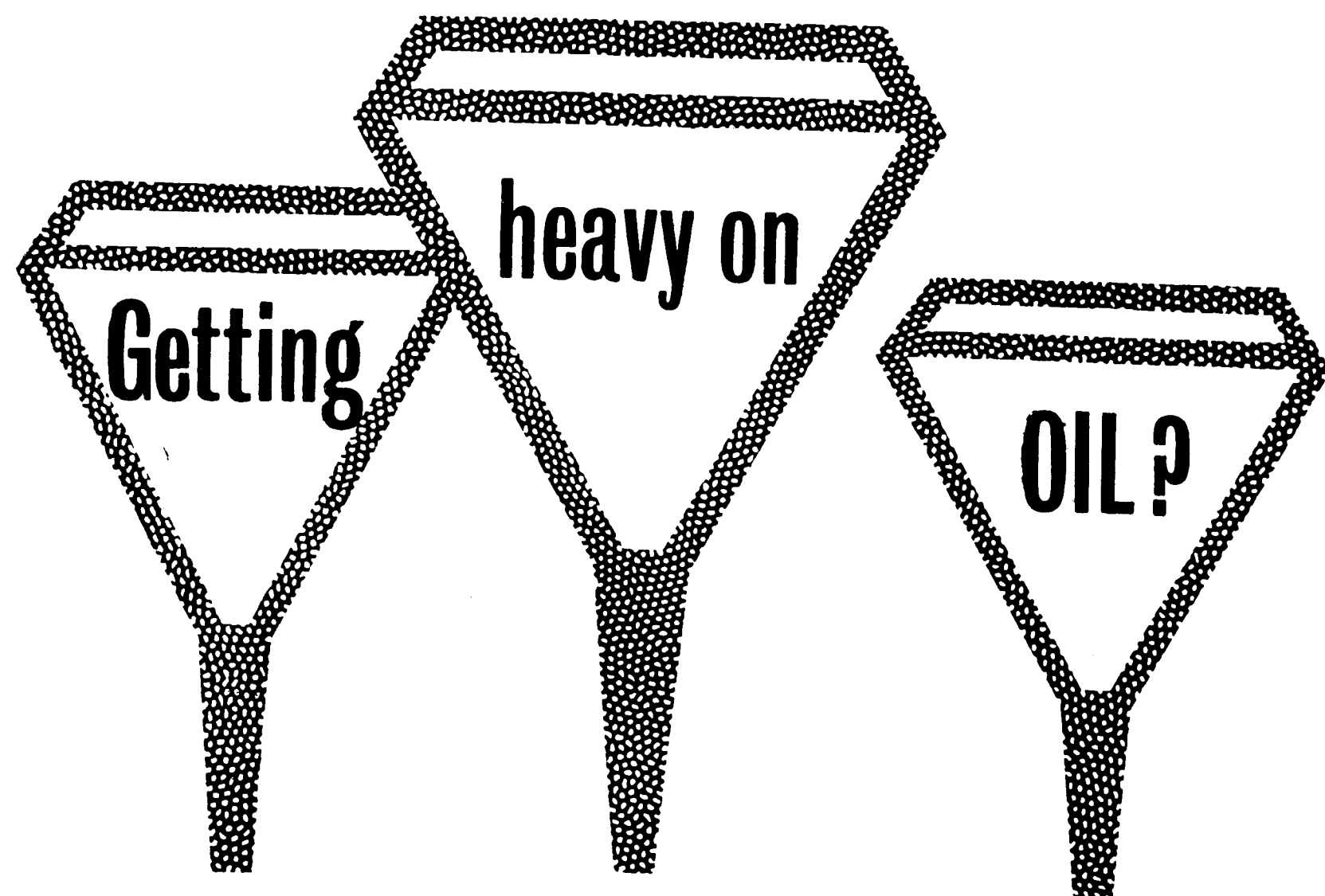
The international monetary agencies, despite their recent proliferator and the substantial increase in their resources, are still unable to cope with world needs. The Bank has set an admirable example of constructive help, particularly to India, but its loans amount to less than one-fifth of the total aid authorised up to August 31 1959. Practically all the remainder were direct loans or grants from foreign governments. Of this, Rs 13,285 lakhs came from the USSR, all but 76 lakhs in the form of trade advances to be spread over several years. The United States total was Rs 77,421 lakhs by far the greater part of which had already been disbursed. Loans repayable in dollars were only a minor part of the American aid, a very substantial part of which consisted of outright grants, much of the rest being loans in rupees which may in fact end up as grants.

The order of magnitude of these figures should be borne in mind when considering the relative contributions which foreign grants and foreign loans may make to the foreign exchange available for the execution of the Third Five Year Plan. It has often been suggested in recent months that with the recovery of Western Europe and the increased resources of the international monetary institutions, India may expect larger amounts of foreign aid from them in future. This may well be true. Both developments are to be welcomed.

FOREIGN AID TO INDIA.

INDIA.					
Rupees—Lakhs.					
Country.	Total Authorisations to August 31, 1959.		Total Utilisations to June 30, 1959.		
	Loans	Grants	Loans	Grants	
U.S.A.	60,392	17,029	N.A.	N.A.	
I.B.R.D.	28,193	...	20,407	...	
U.S.S.R.	13,209	...	6,318	...	
U.K.	7,743	...	4,139	...	
Canada	1,571	...	1,571	...	
West Germany	9,347	...	5,570	...	
Japan	2,762	...	120	...	
Rumania	550	...	...	...	
Czechoslovakia	1,218	...	...	...	
Colombo Plan	...	8,547*	...	8,794	
Ford Foundation	...	967	...	502	
Total	125,025	26,543	77,934	20,681	

*Includes (a) Norwegian grants Rs. 166 lakhs, (b) U.S.S.R. gift of Agri. Machinery Rs. 76 lakhs.



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So is the possibility that the rivalry between the United States and the USSR may be shifted in some measure from the military to economic field. But the reality of the foreign aid situation is that the total which India may expect for the Third Five Year Plan still depends in very large degree upon the amount which the United States will feel able to place at India's disposal. This is clear from the aggregate figures which are summarised in the table (p. 27) Of the foreign aid actually utilised up to June 30, 1959, the United States had supplied 55 per cent and the World Bank 20 per cent. The remainder came from the Colombo Plan, West Germany and the USSR (each 6 per cent), the United Kingdom (4 per cent) and Canada (nearly 2 per cent.)

Since the war the United States has carried the major burden of foreign aid, first in the reconstruction of Europe and later in funds for development. Until the last year or two the only funds freely available in the international monetary institutions were the gold tranche (2%) of member subscriptions to the International Bank of Reconstruction and Development and the total United States paid-up subscription (20%). More recently the Bank has been able to raise limited loans in markets outside the United States for relending to developing countries. There has also been a cautious and as yet small amount of permission from some other member-states to lend part of their subscriptions in national currency. But it remains true that by far the larger part of the funds lent by the international institutions is in fact American money, calling for unrequited exports from the United States.

Until about two years ago, in fact since before the war broke out, the United States had enjoyed a favourable balance of payments and comfortable exchange reserves. It had been able to carry the burden of the European Reconstruction Programme and of later foreign aid programmes without any great concern over their effect on its own external balance. It also carried through a quite drastic reduction of its import tariff which, despite some remaining protectionist features, is now one of the lowest in the world. For an accumulation of reasons, domestic and international, its balance of payments situation has now changed for the worse. The visible symptom of this change is a steady and rather substantial outflow of gold from the reserves. In 1958 the outflow was \$2,300 millions, in the first nine months of 1959 it was a further \$1000 millions. The stock remained at \$19,500 millions and, while there is widespread discussion there is little alarm and no panic in the United States. It is quite clear, however, that there will be some reaction on the foreign aid programme which has always had its critics and indeed its enemies.

While pressure may come on military rather than economic aid, and the total of development loans may not be reduced, it seems quite possible that there may be some tightening of the aid programme—loans rather than grants, stiffer terms, requirements designed to stimulate American exports. Some of these are already evident. This fact is quite compatible with the impression gained by many recent visitors to the United States that there is much more understanding of and sympathy with India's aspirations than ever before. Official and business opinion is undoubtedly favourable. But the United States is a democracy, taxation is heavy, fear of inflationary pressure is widespread and one simple method of checking inflation and also reducing taxation without creating unemployment is to get the external balance into order by cutting unrequited exports. The United States will also press harder for removal of discriminatory restrictions on dollar imports and for the relaxation of trade barriers generally.

Aid from other sources and particularly from Western European countries may fill any gap left by a possible shrinkage, or failure to expand, of American aid. It may even increase the total available; but it should be clear that such European aid will be in the form of loans rather than grants and rather closely tied to specific projects requiring imports from the lending country. Indeed much of it may take the form of extended commercial credits, perhaps at low interest rates, as the Russian aid already does. Such loans and credits may balance an external deficit while they are being received; but they must be repaid and ultimately they reinforce the case which is argued below for more attention in planning to export possibilities.

A footnote needs to be added regarding direct foreign investment in industrial enterprises. Properly safeguarded, this is in many respects the best form of borrowing for an underdeveloped country. It is flexible and does not add to balance of payments difficulties in a crisis as fixed loan repayments do. If foreign exchange is scarce, equity transfers can be postponed or omitted. It carries with it participation in technical skills and knowhow, something which a developing country cannot afford to miss. No technical aid programme can quite take the place of the experience acquired in the actual conduct of business. Every country, including India, now has legislative safeguards against the possibility of such direct investment dominating important segments of economic activity. Such safeguards can be so effective as to shut out investment altogether. At least as important hindrances are those which affect national as well as foreign investment—primarily over-elaborate regulation of business activity and sometimes taxation. If direct

foreign investment is desired, it must be tempted, but if it is made it obviously must call for future exports.

Since from any realistic angle the imports necessary to sustain a rapid programme of economic development—unless they are received as a free gift—must ultimately be paid for by exports, it would seem that the identification and promotion of future export possibilities should occupy a prominent place in any planning programme. It is inconceivable that a proud and self-respecting country should rely upon gifts to solve its national problems. Some gifts will be made and received in goodwill and in the larger interest of a better economic balance in the world from which all peoples may benefit. But present aid must normally be paid for by future exports.

Part of the problem confronting a country that has hitherto lagged in economic development is that its traditional exports are likely to be of the sort that face a failing world market. This is true of some kinds of foodstuffs and agricultural materials and even of minerals and perhaps before too long it may be true also of fossil fuels. It is particularly true when those traditional exports are unstandardised, of variable quality, badly packaged and marketed in a rather haphazard fashion. It is not true that all agricultural and raw material exports have encountered adverse terms of trade in recent years. Some countries using modern methods of production and marketing to export food and raw materials have enjoyed exceptionally favourable terms of trade. The essential truth in the controversy over this question is that in this scientific age no country can afford to rely upon old-fashioned exports or old-fashioned marketing. The range of modern industrial research is such that even minerals formerly regarded as indispensable must now face severe competition from substitutes. Aluminium, plastics and even glass compete with steel in industrial building, the synthetic with vegetable textiles, vegetable oils with animal fats and mineral oils with both. The industrial chemist finds new methods of hardening steel which if need be can replace the old hardening alloys. The danger of war shortages did much to promote such research, but it is now so highly developed that every rise in the price of national raw materials brings substitutes into the market. India discovered this when it attempted just after the war to exploit a shortage of packaging materials and lost a large part of the market permanently to paper and other containers. In the search for revenue that is inevitable in a period of rapid and forced development, it is tempting to think of intercepting some part of a rising market by imposing an export tax upon a commodity in strong demand. But the limits within which this can be done

without raising the price of the exported commodity to the point which encourages competition and substitute products, are very narrow. Older nations have long since abandoned export duties as likely to kill the goose that lays the golden eggs.

Trade and production are now so developed that prospective buyers whether of manufactures, raw materials, foodstuffs, or handicraft products have many alternative markets to shop in. Substitution can take many forms. A buyer of dress goods may choose between competing materials and from different countries. This substitutability, material and regional, is the main reason why even the best established trading channels, well-worn for decades, sometimes dry up. No country can afford to be complacent about its traditional exports, however well-established they may seem to be. Sympathy and sentiment do not influence trade. A foreign importer may work and vote for development loans, but he cannot afford to buy expensive or inferior imports to demonstrate his sympathy for a developing country.

The fall in the value of India's exports in 1958-59 was largest in the dollar area; but the fall of exports to the O.E.E.C. countries has been in process for some years, at least since 1955-56, and exports to the sterling area have on the whole been falling also. There are more general causes at work than a passing industrial recession in the United States. The volume of exports fell in 1958 by about 10 per cent, while the value fell only by 8 per cent, and the terms of trade actually improved. It is, therefore, not price movements but something in the way the export trade is organised that is responsible for the decline.

It is typical of the monetary, as distinct from the economic, approach to planning in India that more detailed and recent information is available for balance of payments than for the commodity structure of the export trade. But it is in the latter that the reasons for the recent difficulties must be sought. The balance of payments merely records the results of movements which are caused by shifts in particular trades and markets. Without the opportunity for detailed examination of the facts, an economist can do no more than suggest possible avenues of exploration which might reveal the basic causes of flagging export receipts. If these causes could be laid bare, it might be possible to take steps to remedy them in the Third Five Year Plan.

The first obvious avenue of enquiry would be to find out how far the decline may be traced to general causes within India which price Indian exports out of foreign markets. If Indian exporters in general find it difficult or impossible to land their products in foreign markets at prices competitive with those of other exporters (or domestic substitutes) the cause might

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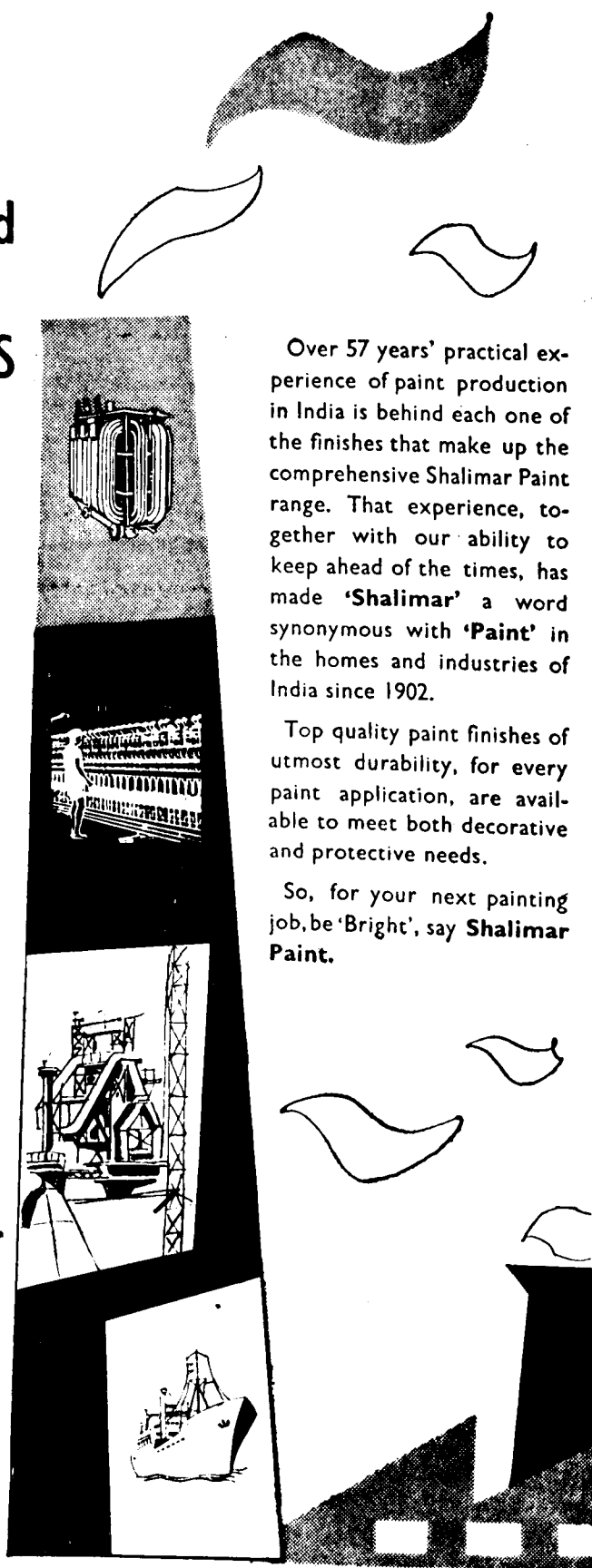
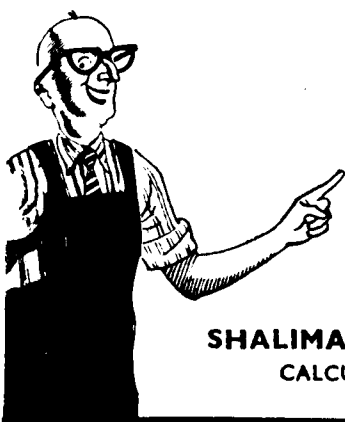
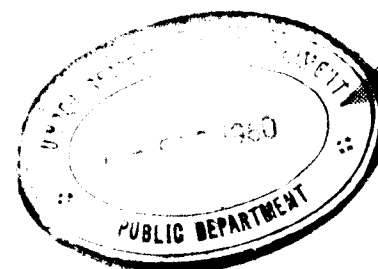


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lie in a general inflation of costs in India. This might be monetary in origin, or it could be the result of inefficient and expensive handling at various stages of exporting. Labour costs are often blamed by industrialists, but if it can be proved that labour costs are in fact excessive the remedy must surely lie in the reduction of unit-costs by more efficient organisation rather than by an attack on wage-rates. If Indian exports in general prove to be high-priced in comparison with their competitors, whether the cause be suppressed monetary inflation, excessive handling, transport, port or shipping charges, or inefficient organisation, remedies could be sought in appropriate domestic policies.

Apart from such general factors, enquiry might be made into specific marketing practices particularly in the products which show marked decline. Primarily this is a matter for business itself but business must be free to take whatever steps are necessary. While there are instances of individual enterprise developing promising markets for Indian exports attractively packaged and displayed, it is not easy to find in foreign markets the same recognition of Indian goods as there is for example of Japanese products which are aggressively pushed in characteristic, attractive packages. Packaging in fact becomes a more and more important part of the marketing of manufactured goods of all kinds, including processed foods, and as India moves from raw materials to manufactured exports marketing will require intensive study. It is not the province of an economist to do more than suggest that inadequate attention to the marketing of exports may be a possible cause of failure to mobilise as much foreign exchange as might reasonably be expected from exports. What the tourist buys is not necessarily a good guide to what he will buy when he returns home. The practical study of effective marketing methods is a matter for businessmen to handle. There is no substitute for thorough market surveys in advance of production.

Other, perhaps less important, lines of enquiry might be suggested; but these are perhaps sufficient to drive home the main point of this paper which is that in future planning, more specific attention may have to be paid to the planning of exports as well as to domestic consumption. As foreign aid tapers off in the future and loans must be serviced and repaid, India must expand its exports. It may confidently be hoped that production will expand as the Third and subsequent Five Year Plans take effect. But what may be suitable production for the domestic market may not prove exportable and unless exports can be increased it may not be possible to honour past obligations while continuing to expand capital imports as the range of domestic production widens. It is just not possible, except in an authoritarian economy, suddenly to force goods from domestic to export channels. Even in an authoritarian economy, this can be done only at considerable real cost. Prices must be reduced and losses recouped from domestic consumers. This costly, and often brutal, method is not open to any but authoritarian countries. Nor can an easy way out be found by exhortation or by state marketing.

There are some facts that can be stated rather categorically at this point. The first is that for some time to come India must probably rely upon the traditional exports in which she has had an advantage; but this will prove disappointing unless care is taken to see that these traditional exports are marketed effectively. It is of course entirely possible that Indian tea might maintain and even strengthen its hold over the markets it took originally from the Chinese when they allowed their production and marketing to become inefficient. But if it is to do this it must not only keep its production and handling costs competitive and its quality high; it must demonstrate its competitive strength by effective merchandising practices including advertising and packaging. The illusion is not that these older exporting industries have inherent economic strength; but that their potentialities can be realised without effort to keep abreast of modern competition. What needs to be examined is not only which of the older exporting industries can hold their own, but how.

It would be a poor reflection on India's planning if the export story were to end there. With Independence, what economic historians call colonial trade—the exchange of raw materials for finished goods should decline. India should plan to take its place among the other developed economies, exchanging with them and with countries at an earlier stage of development the products on which it is best fitted to specialise. Planning is necessary. It is too easy to assume that markets will be available as and when surpluses appear in particular products, such for example as steel. No one can foresee the future of international exchanges, but it is reasonable to expect both that other countries will practise economic nationalism as India is doing at this stage of rapid development and that the competition between maturer economies will increasingly be decided by scientific and technical efficiency. It is not too soon to begin thinking of the fields of production and the possible markets on which India's exporters might best concentrate, and to plan accordingly. When so much depends upon India's ability to attract—and ultimately repay—foreign aid at this crucial stage of industrialisation, planning which is concentrated solely on the domestic market could defeat itself.

Such planning cannot be successful without a considerable amount of consultation with those actually engaged in particular trades. No projections are attempted in this

paper because there has been no possibility of such consultations or of detailed investigation. It should be obvious, however, that in large measure export possibilities must be sought in markets which are both capable of absorbing them and unlikely to restrict them. There are good reasons to strive for the expansion of neighbourhood trade in the region of south-east Asia. India is so placed that it is possible to look forward with some confidence to the time when Indian manufactures will be in demand in that region. But that time is probably distant. The kind of goods which neighbouring countries need for their development are for the most part not such as India can supply. They will look for aid as India has done, so that much capital equipment will come in that form. They will restrict imports of consumer goods. And they will protect their infant industries.

It seems probable, therefore, that for the immediate future markets must be sought mainly in the more developed countries. This fact immediately gives some direction to the planning. Not only the kind of exports, but the way in which they may be effectively marketed, will demand intensive study of the way in which these foreign markets behave. If raw materials are involved they must be available in large quantity and standardised quality to fit into the needs of mass production industries. Regularity of delivery is im-

portant also. If consumer goods are exported, something of the same quantity, quality and delivery date questions recur. The merchandising of the industrialised countries is mass merchandising. Odd lots of uncertain quality and irregular arrival are difficult to absorb, particularly if they are unattractively packaged. At the same time the demand, particularly for consumer goods in affluent societies, can be capricious and always depends upon substantial display and advertising expenditures. Therefore, not only must the customer be given what he wants, the exporter must be prepared to put much effort and capital into the marketing process.

It seems improbable either that dispersed individual effort or state marketing can provide the competitive flexibility that is necessary. Japan, and many of the smaller European countries which are competitive with India, have successfully used the device of joint marketing ventures by which private firms or trade associations often with government assistance combine to sell in foreign markets. Flexibility, both of production and of marketing, is needed and is more easily achieved by private trading initiative than by public service operation with all its necessary checks and regulations. Barter trade is possible with other planned economies, but the country which wants to export to unplanned economies must adopt the methods which fit their markets.

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The Real Progress of the Second Plan

THE chequered progress to date of the Second Plan, which has been cut down to five-sixths of its original physical size, has necessarily to be assessed in financial terms with all their limitations, for, the hundreds of schemes under varying stages of implementation do not appear to have yet come in for systematic quantitative and qualitative assessment in terms of physical targets achieved, employment created, real benefits conferred on the public, and so on. Anything like an overall assessment, it may be expected, will not also be available till the Planning Commission is in a position to review the results of the Second Plan sometime in 1962. But even

that comprehensive assessment will not be perfect in every way because the physical norms which were originally adopted for determining the physical targets may not have been justified in all cases by actual physical achievements and real benefits for which suitable yardsticks and indicators do not appear to have been evolved so far. In the absence of such indicators of real progress, the most that can be done at present is to indicate the broad contours of progress, partly in terms of the progress of plan expenditure in the public sector and partly in terms of the progress of industrial projects in both the sectors—public and private.

The progress of plan expenditure in the public sector in the first four years is summed up,

along with the revised financial provisions under the major heads of development, in the following table:

Head of Development.	Revised Plan Provision.	1956-58 (Actuals).	1958-59 (Revised).	1959-60 (Annual Plan Provision).	Total 1956-60.	Col. (6) as Percentage of Col. (2).
1	2	3	4	5	6	7
Agriculture & Community Development	510.0	153.9	123.0	142.4	419.3	82.2
Irrigation & Power	820.0	312.7	170.9	182.8	666.4	81.3
Village and Small Industries	160.0	62.2	41.3	42.8	146.3	91.4
Industries & Minerals	700.0	268.5	256.8	199.3	724.6	91.7
Transport & Communications	1340.0	486.3	294.1	282.1	1060.5	79.3
Social Services	610.0	194.4	158.0	216.2	568.6	70.2
Miscellaneous	70.0	26.0	19.5	27.0	72.5	103.5
Total	4500.0	1504.0	1063.6	1092.6	3660.2	81.3

Estimated Second Plan Outlays.
(in Rs. crores)

		(in Rs. crores)			
Serial No.	Head of Development	Original allocations Centre	5-year States	Most likely actual 5-year outlays Centre	actual States
I. Agriculture & Community Development:					
1.	Agricultural Production	10	72	9	81
2.	Minor Irrigation	3	63	3	89
3.	Land Development	5	17	4	15
4.	Animal Husbandry, Dairying, etc.	6	50	4	29
5.	Forest and Soil Conservation	6	40	4	28
6.	Fisheries	4	8	3	6
7.	Warehousing, Marketing & Co-operation	4	43	4	28
8.	Miscellaneous Agricultural Scheme	1	10	1	5
9.	N. E. S. & C. D. Programmes	12	188	7	163
10.	Village Panchayats	12	12	12	12
11.	Local Development Works	15	15	15	15
	Total I	66	503	54	456
II. Irrigation and Power:					
12.	Multipurpose Projects	(a)	(a)	248	248
13.	Irrigation	381	381	188	188
14.	Power	415	415	321	321
15.	Flood Control and Boarder Projects	95	47	47	47
16.	Investigation and Research	9	4	4	4
17.	Public Co-operation in Irrigation Schemes	1	0.2	0.2	0.2
18.	Centre's Share in D.V.C. (b)	12	12	12	12
	Total II	105	808	63	757
III. Village and Small Industries:					
19.	...	80	120	55	105
IV. Industries and Minerals:					
20.	Large and Medium Industries	596	21	692	13
21.	Mineral Development	71	2	83	2
	Total IV	667	23	775	15
V. Transport and Communications:					
22.	Railways	900	900	900	900
23.	Roads	82	164	69	150
24.	Road Transport	3	14	2	9
25.	Ports and Harbours	44	2	44	2
26.	Shipping	46	2	55	2
27.	Inland Water Transport	3	1	1	1
28.	Civil Air Transport	43	43	43	43
29.	Other Transport	6	1	4	1
30.	Posts and Telegraphs	63	51	51	51
31.	Other Communications	4	4	4	4
32.	Broadcastings	9	7	7	7
	Total V	1203	182	177	163
VI. Social Services:					
33.	Education	95	212	68	207
34.	Health	90	184	75	170
35.	Housing	47	73	20	64
36.	Welfare of Backward Classes	32	59	19	53
37.	Social Welfare	19	10	10	8
38.	Labour and Labour Welfare	18	11	14	10
39.	Rehabilitation	90	90	90	90
40.	Educated Unemployment Schemes	5	9	9	9
	Total VI	396	549	208	512
VII. Miscellaneous Schemes:					
		43	53	30	40
GRAND TOTAL		2560	2240	2457	2457

(a) Distributed between irrigation and power.

(b) Centre's share in D.V.C. included in multi-purpose projects.

On the basis of two assumptions—one of a shortfall to the tune of Rs 110 crores in expenditure in 1958-59 and 1959-60 together and the other of a likely expenditure of about Rs 950 crores in 1960-61—it may be estimated that the revised financial target of Rs 4,500 crores for the entire five-year period will have been fully reached. As the revised financial target is in terms of 1957-58 prices, it is the equivalent of about Rs 4,000 crores at 1952-53 prices in terms of which the original provision of Rs 4,800 crores was determined. Broadly speaking, the revised financial targets may be taken to represent, in real terms, five-sixths of the original targets.

But this general statement would need to be modified in the light of the progress of expenditure under the different heads of development. It may be inferred from the last column of the above table that each of the three heads of development, namely, Agriculture and Community Development, Irrigation and Power and Transport and Communications, will have accounted for four-fifths of its appropriate provision under the revised Plan, leaving a fifth of it to be incurred in the last year of the Plan. In the case of these three heads of development, therefore, the physical targets (whatever they be) represented by their respective revised financial targets will have been fully reached. It is only in respect of the head of 'Social Services' that the progress of expenditure in the first four years provides no such cause for satisfaction. With only 70 per cent of the revised Plan provision under this head having been incurred in the first four years, it is not difficult to see that only about 85 per cent of that provision will have been incurred in the entire five-year period. It may, therefore, be broadly taken that there will be a corresponding shortfall in physical achievements in terms of the number of schools opened, the number of beds added to hospitals, and so on. But, at the same time, it needs to be remembered that in this, as in any other sector, financial expenditure as such is no absolutely reliable

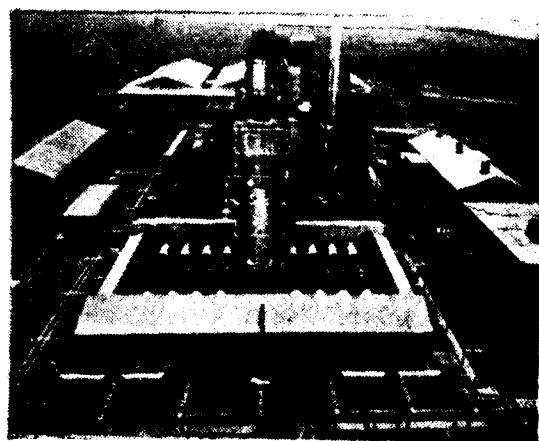
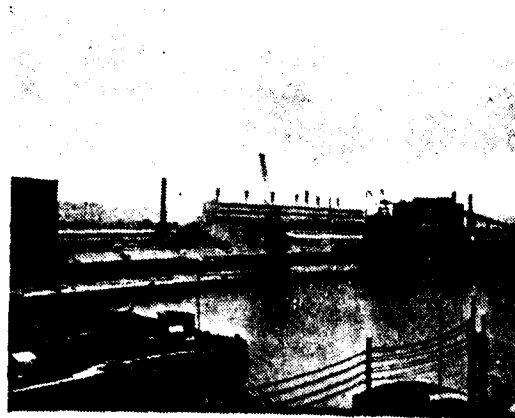
Taking the question of irrigation alone, for example one would have to take, with a large pinch of salt, any current estimate of the new irrigation potential under actual utilisation till such time as the State Revenue Departments' irrigation statistics, which alone can be relied upon as representing the real state of affairs, become available—and they will be available for the end-year (1960-61) of the Second Plan only two or three years thereafter. But no such doubt need be entertained in relation to power and railway projects, the physical achievements of which would be more distinctly visible and easily assessable.

As for the development heads, namely, Village and Small Industries and Industries and Minerals, the progress of their expenditure in the first four years has been pretty faster, with the result that only about 10 per cent of the appropriate provision under either head will remain to be incurred in the fifth and last year. In the case of these two heads of development also, it may be broadly taken that the physical targets (whatever they be) represented by their respective revised financial targets will have been fully reached. It is only in respect of the head of 'Social Services' that the progress of expenditure in the first four years provides no such cause for satisfaction. With only 70 per cent of the revised Plan provision under this head having been incurred in the first four years, it is not difficult to see that only about 85 per cent of that provision will have been incurred in the entire five-year period. It may, therefore, be broadly taken that there will be a corresponding shortfall in physical achievements in terms of the number of schools opened, the number of beds added to hospitals, and so on. But, at the same time, it needs to be remembered that in this, as in any other sector, financial expenditure as such is no absolutely reliable

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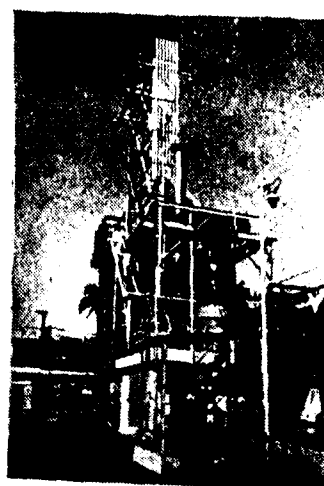


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measure of real progress, for it is not inconceivable that much the same real progress aimed at may have been achieved with a lesser expenditure of money. For example, the number of new schools opened may fully correspond to the target

therefor if the shortage of funds has led to the use of cheaper local materials in the construction of school buildings.

By way of summing up this part of the article, the following table is given:

Head of Development.	Original Second Plan allocations at 1957-58 prices (in Rs. crores).	Revised allocations at 1957-58 prices (in Rs. crores).	Col. (3) as a percentage of Col. (2).
1	2	3	4
Agriculture and Community Development	625(12)	510(11)	82
Irrigation and Power	1005(19)	820(18)	82
Village and Small Industries	220(4)	160(3.5)	73
Industries and Minerals	760(14)	790(18)	104
Transport and Communications	1525(29)	1340(30)	88
Social Services	1040(20)	810(18)	78
Miscellaneous	110(2)	70(1.5)	64
Total	5285(100)	4500(100)	85

In the second column of the above table a uniform price increase of 10 per cent over the 1952-53 prices has been assumed although it is by no means clear how far such an assumption is valid in relation to each individual head of development. If that is valid, the picture that emerges from Column (4) is that the revised (reduced) Plan has placed the sector of 'industries and minerals' in a somewhat better position than in the original Plan and all the other sectors in a worse position. In particular, the two sectors of 'village and small industries' and 'social services' have fared relatively very badly in the revision. The figures within brackets in Columns (2) and (3), representing percentages of the respective totals of Rs 5,285 crores and Rs 4,500 crores, also reveal that the pattern of allocations for the different sectors has so changed as to benefit the sectors of 'industries and minerals' and 'transport and communications' at the expense of all the other sectors.

However, in view of the fact that the price increase has been

relatively greater in the sector of industries than in the other sectors, some industrial schemes like the carbonised briquetting plant under the Neyveli Project, the synthetic rubber plant, the aluminium plant at Salem, the rayon grade pulp project, etc., will have been just begun only at the closing stage of the Plan to be carried over to the Third Plan. But all other major industrial projects in the public sector like the three steel plants, lignite project, the expansion project of the Sindri Fertilisers, the Nangal Fertiliser Project, the Heavy Electrical Plant, etc., will have advanced greatly in their progressive implementation, more or less according to schedule. But in the other sectors, the physical achievements will probably correspond, in broad terms, to the pattern revealed by the percentages in Col. (4). Here one has to recall the main physical targets (of production and development) for 1960-61 embodied in the original Plan if one is to figure out, however roughly, what the likely actual achievements will be by the end of the Plan.

Item.	Unit.	Target (1960-61).
Foodgrains	Mill. tons	75.0
Cotton	Mill. bales	5.5
Sugarcane (gur)	Mill. tons	7.1
Oilseeds	Mill. tons	7.0
Jute	Mill. bales	5.0
Tea	Mill. pounds	700
N.E.S. and C. D. Blocks	Numbers	4920
Population served by N.E.S. and C.D. Programme	Mill. persons	325
Village Panchayats	'000 Nos.	200
Area irrigated	Mill. acres	88
Electricity (installed capacity)	Mill. Kw	6.9
Railways (Passenger train miles)	Mill. Kw	124
Railways (freight)	Mill. tons	181
National Highways	'000 miles	13.8
Surface Roads	'000 miles	125.0
Coastal Shipping	Lakh GRT	4.5
Overseas Shipping	Lakh GRT	4.7
Ports (handling capacity)	Mill. tons	32.5
Post Offices	'000 Nos.	75
Telephones	'000 Nos.	450
Telegraph Office	'000 Nos.	6.3
Elementary-Basic Schools	Lakhs	3.5

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Item.	Unit.	Target (1960-61)
Teachers in Primary-Middle Schools	Lakhs	13.4
Teachers Training Institutions	Numbers	1,412
Medical Institutions	'000 Nos.	12.6
Hospital beds	'000 Nos.	155
Doctors	'000 Nos.	82.5
Nurses	'000 Nos.	31
Midwives	'000 Nos.	32

Some reasonably valid guesses can be made in respect of some items in the above table of targets. The revised food production target, being modest, is most likely to be reached, if the trend disclosed by the production of 72-73 million tons in 1958-59 is any guide. The targets for commercial crops are also likely to be reached and, in some lines, even exceeded. As for Community Development, the population likely to be covered by that programme by the end of the Plan may be around 250 million only in view of the slow-down in the pace of coverage. As for irrigation, judging by the trends disclosed by the Revenue Departments' irrigation statistics thus far, it will be a near-miracle if the total irrigated area reaches the level of 70 million acres in 1960-61. As for the other physical targets, varying shortfalls which cannot

be easily figured out may well be there.

Similar shortfalls in physical achievements may not be very much in evidence in the 'industries and minerals' sector of the public sector for the simple reason that the financial targets thereof are most likely to be fully and methodically reached. But the private industrial sector, it has been estimated, will not be able to reach fully its revised financial target of Rs 840 crores by way of new investment and replacements, with the result that there may well be shortfalls in some lines although at the same time, it is also likely that the physical targets by way of installed capacity or production may well be exceeded in the case of some individual industries. In this connection the following table presents a picture of the Plan targets and the capacities likely to be installed in a number of industries by the end of the Plan:

Industry.	Unit.	Plan target.	Likely installed capacity in 1960-61.
Salable Steel	Mill. tons	2.3	2.3
Aluminium	'000 tons	30	20
Ferro-manganese	" "	170	114
Superphosphate	" "	120	80
Sulphuric Acid	" "	500	420
Soda Ash	" "	253	320
Caustic Soda	" "	150	124
Industrial explosives	" "	5	5
Petroleum refining	Mill. tons crude	4.3	4.3
Plastics, synthetic moulding powder	'000 tons	12.8	13.2
Cement	Mill. tons	16.0	...
Refractories	'000 tons	1250	820
Automobile tyres	'000 Nos.	1,450	1,774
Finished dyes	Mill. tons	27.0	12.0
Cotton textile machinery	Rs. crores	17.0	10.0
Jute textile machinery	" "	2.5	1.0
Cement machinery	" "	2.0	0.8
Automobiles	'000 Nos.	57	60
Sugar machinery	Rs. crores	2.5	2.5
Locomotives	Numbers	100	100
Wagons	'000 Nos.	25	25
Structural fabrication	'000 tons	500	289
Bicycles	'000 Nos.	895	1350
Diesel Engines (50 H.P. and above)	'000 H.P.	20 to 30	36
Transformers	'000 KVA	2200	1465
Motors	'000 H.P.	1200	736
ACSR Cables and Wires	'000 tons	30	23.6
Radio receivers	'000 Nos.	300	300
Sugars	'000 tons	2500	2250
Cotton textiles spindlage	Mill. Nos.	14.15	14.15
Cotton textiles loomage	'000 Nos.	221	221
Paper and paper board	'000 tons	450	410
Glass	" "	335	343
Rayon filament	Mill. lbs.	68	77
Rayon staple fibre	" "	32	40
Paints and varnishes	'000 tons	65	65

The estimates of likely installed capacity in 1960-61 given in the above table were made in 1958 on the basis of the schemes then in progress. Such new schemes as have been taken up since may alter the position in some lines.

But, all in all, while the private industrial sector will have reached its targets in most cases, it will have lagged behind in some crucial lines largely because of foreign exchange difficulties.

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Management of State Enterprises

By T. T. VIJAYARAGHAVAN

THE sub-committee of the Congress Parliamentary Party under the chairmanship of Mr V. K. Krishna Menon has done well through its report to bring to the fore the complex issues relating to the management of State enterprises. The constitution of the committee itself was an off-shoot to the L.I.C. transactions with a group of Mundhra concerns, leading to country-wide interest on the working of State enterprises. It is evident that what the committee has to say cannot be the last word on the subject. However, it has provided an opportunity not only to review the question of the management of State undertakings, but the related issues of nationalisation and the extension of the public sector. In fact, a valuable forum was provided for these discussions when the United Nations Seminar on Public Industrial Enterprises in the ECAFE region met in New Delhi for nearly ten days in the beginning of this month. In the course of this article, however, only an attempt is made to consider the specific issues of accountability and autonomy, the reconciliation of which will prove crucial to the working of State enterprises in the light of some basic considerations.

Before doing so, mention should be made here to one or two salient points. One is that the reasons for the establishment of public industrial enterprises have varied from country to country. Sometimes, it may be ideology as in the case of the People's Republic of China. In a different form, it may be the acceptance of the socialistic pattern of society in countries such as India, Burma and Indonesia, which has influenced the growth of public ownership of industry. But ideological considerations apart, in the case of under-developed countries, the main justification for State intervention has flowed from the fact that private enterprise has been unwilling or unable to undertake large or relatively unprofitable industrial ventures on its own. Since large amounts of capital required for the new enterprises under the impact of planning could only be provided by the Government, the development of basic industries can only be possible within the State-owned sector. Thus, these two factors, namely, the inability of private enterprise to bear the entire responsibility of quick industrial development consistent with national economic policy and the huge capital investments that have to be made for the expansion or promotion of heavy industrial projects, have to be borne in mind while discussing the rationale of State enterprises in under-developed countries. This is particularly important because recently in the West and especially in Britain there seems to be a

swing back of the pendulum on the question of nationalisation and public ownership. A weighty contribution to this debate has been provided by a recent book by R. Kelf-Cohen entitled "Nationalisation in Britain—The End of a Dogma." But the circumstances in India are quite different, and while undoubtedly one should benefit by the experience of other countries, one should be wary of jumping into conclusions since circumstances are quite different in India.

Secondly, there should be clarity with regard to the goals for management. In a discussion paper submitted to the Delhi Seminar, Mr A. H. Hanson has pointed out that the well-known divorce between ownership and control has made the motivation of private enterprise management considerably more complex than it used to be. It has been generally taken for granted that whereas in public enterprise, service is a direct and conscious purpose, in private enterprise it is a by-product of profit-making. Mr Hanson has, however, observed that the very conception of profit, when analysed, tends to become ambiguous. The pursuit of long-term profitability has very different economic effects and social implications from the mere quest for immediate rewards, and profitability itself, in the sense of material gains accruing to individuals, may well take second place to the expansion and consolidation of the concern, namely, to the pursuit of economic power. Also, public service is by no means absent among the direct motivations of the managements of well organised private enterprises. On the other hand, a public enterprise, while in theory having no other motive than that of public service, may conspicuously fall short of this ideal and may develop into a sort of "managerial empire" in which officials, enjoying the security of tenure characteristic of the civil service, become apathetic about the purposes they are supposed to be pursuing and be even dictatorial in their attitudes towards the public.

So, it is evident that the distinction between profit and service is too inexact and ambiguous for purposes of analysis. Also, the statement that the profit motive is an unsocial element is only a half-truth. It is not profits as such that are wrong. But it is the way in which profits are appropriated that is socially significant. It is now recognised that the management of a public enterprise like that of any other enterprise should try to make the concern pay its way, constantly adapt its production policy to the changing requirements of the market and also make profits which should go to

augment the coffers of the general exchequer. However, from the standpoint of economic development, it may be necessary to run the enterprise at a loss even over a considerable period. Such losses have to be balanced against the actual or potential gains to the economy as a whole. This would mean that a public enterprise may be required, in the interest of planning for economic development, to behave in ways which, from the standpoint of the orthodox management, may appear "uncommercial." This point is particularly more relevant to an under-developed country than to a comparatively highly developed one.

It is generally assumed that these non-commercial considerations are matters which should be decided by Government whereas it is the duty of management to behave in accordance with strict commercial principles within a frame of reference provided by legislation and by directives from higher authority. But if the enterprise concerned is to contribute its quota most effectively to the achievement of the national plan, tension and misunderstandings between managerial policy and "higher policy" have necessarily to be avoided. This, in turn, would postulate that the national plan itself is broken down into a series of goals for each individual industry and plant so that it may be possible for managers to have before them a series of well defined targets. The choice between public and private enterprise or, in other words, the area demarcating the public sector from the private sector is ultimately a matter of public policy. But in deciding upon it, the main issue to be considered is what would produce the best social results. The very fact that today, in spite of the expansion of the public sector, private enterprise is not only buoyant but optimistic of its future is ample testimony to the fact that in a properly planned economy, not only is there no need for any conflict of the type imagined in a purely doctrinaire type approach, but the expansion of the private sector itself is conditional on an appropriate expansion of the public sector.

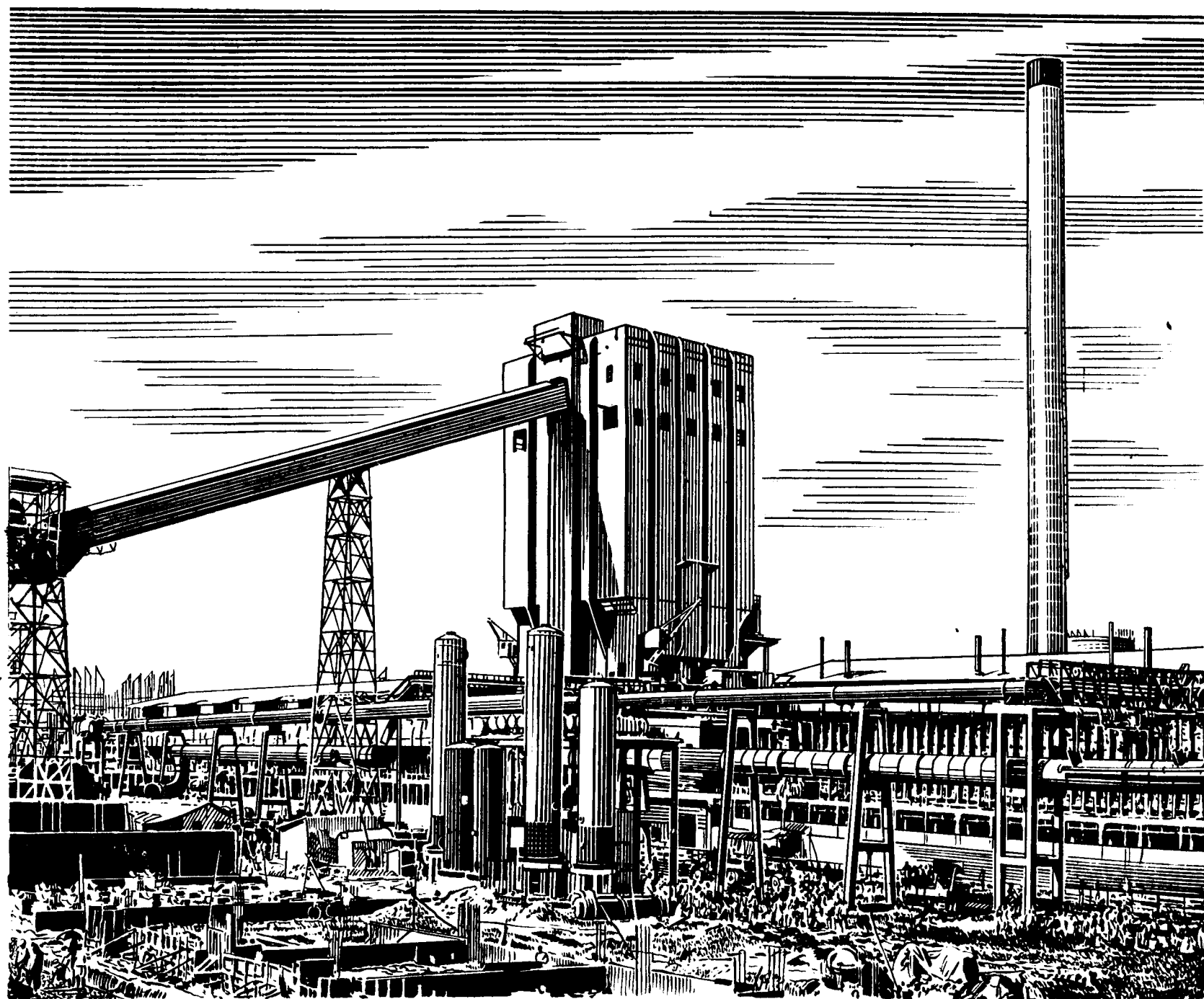
It is in the light of these considerations that the subject of the management of State undertakings should be considered. There are four different forms of management obtaining in India. One is the departmental pattern under which enterprises are owned and managed as government departments in the form of a separate unit under a board of control. The most important feature of this system is full governmental control and responsibility. The Railways,

Posts & Telegraphs, defence industries, the Hirakud and Bhakra Nangal projects and the Chittaranjan Locomotives are thus managed. The policy and finance of these enterprises are subject to the sanction and control of Parliament and they are in charge of civil service men. This type of management has many limitations and, by its very constitution, is likely to be inefficient because the bureaucratic set-up is inherently rigid and always militates against flexibility which is of vital importance for the conduct of a business concern.

The second system known as the "operating-contract system" involves state ownership and private operation or management with the willing consent of the State itself. Examples of this type are the Hindustan Shipyard and the Eastern Shipping Corporation. This system is adopted only when there is shortage of technical and business skill and experience at the disposal of the State to manage it by itself. If it is adopted generally, it would defeat the very purpose of State enterprise which involves necessarily state management.

The third system is the 'cooperative type' which postulates cooperation between the private sector and the public sector both in ownership and management. As regards ownership, usually a majority of shares are owned by Government and the balance is left to be subscribed by the private sector. So far as the management is concerned, it is usually in the hands of the private sector under the strict and direct control of Government. This system has been adopted very sparingly in India. For example, in the Indian Telephone Industries, Ltd., there exists a partnership between the Government of India, the Mysore Government and the Automatic Telephone and Electric Company Ltd. However, this system is a union of irreconcilables though it enjoys initiative and flexibility as it is operated as a private limited company.

Last comes the 'autonomous management' pattern under which a separate agency is created by a specific or under a general law of Parliament to conduct a public enterprise in its own name more or less on the lines of a business enterprise. They are autonomous institutions for all practical purposes. They manage their own accounts and are financed either from Government loans or grants, or they can also raise loans from the public. Autonomous management may assume either the form of a public corporation or a state-owned joint stock company. The Damodar Valley Corporation set



The lighting-up of the Coke Oven battery No.1 marks a new stage in the progress of the Durgapur steelworks

With the lighting-up of the Coke Oven battery No. 1 on 24th August, the Durgapur steelworks of Hindustan Steel Limited enters a new stage. ISCON is proud to announce that work on this battery has been completed nearly ten weeks ahead of schedule. When the process of gradually heating up the battery to operating temperature is completed, the Coke Ovens will be ready to supply coke for the first blast furnace to produce Durgapur's first pig iron.

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BRITISH COMPANIES WORKING FOR INDIA

up in 1949 and the Life Insurance Corporation established in 1956 are significant examples of the former. As for the state-owned joint stock companies, they do not need a special act for their creation. By action under the Companies Act, a state-owned joint stock company is born as a separate legal entity. Enterprises which are of a purely commercial character like the Sindri Fertilisers and Chemicals, Ltd, come under this category.

It is these last that constitute the bulk of the State undertakings, and it is to their management and working that the Krishna Menon Committee has directed its attention. Two advantages are claimed for this pattern of management. One is that this makes the management of public enterprises possible on the lines of a private enterprise, which is the key to their successful operation. The other is that the system provides for a healthy combination of autonomy with accountability. The problem, however, has been one of devising a satisfactory arrangement by which these companies could be endowed with the maximum degree of freedom in movement and operation without, at the same time, disturbing or diluting the essentials of parliamentary control. The reconciliation of these two conflicting requirements, namely, accountability and autonomy, for ensuring greater efficiency has so far proved intractable.

At the New Delhi Seminar, all delegates were generally agreed that governmental control over public enterprises were necessary, but that they should mainly take the form not of interference with their day-to-day working but of broad directives on such matters as development programmes, capital investment, personnel system and other questions of policy in which the national interest was clearly engaged. Some delegates also attributed excessive governmental intervention to the tendency of members of Parliament to concern themselves too much with the day-to-day working of the enterprises instead of confining themselves to judging it by the contribution it was making towards the fulfilment of national objectives. It is with a view to making Parliamentarians better informed of the working of these enterprises that the suggestion was made for the establishment of specific parliamentary commissions of investigation to keep the enterprises under review.

The Krishna Menon Committee's recommendation in this regard are somewhat different. What it proposes is a third committee of Parliament, something very similar to the Estimates Committee and the Public Accounts Committee, so that a group of members of Parliament would make it their business on the basic fact and knowledge to be informed about this

problem. It also proposes that such a committee will not either be a fault-finding body or a super board of management. At the same time it feels that there should not be any fettering of its judgment and of the expression of its views in good parliamentary tradition. This it qualifies by the following statement: "The committee would also, no doubt, bear in mind that any public expression of views which are intended to correct errors or to provide greater incentives in respect of any concern or all of them is not of such a character as would have the opposite result of lowering the concern in public estimation or affect our credit or capacity so well regarded abroad." This is very ambiguous. If the mistakes of a State undertaking are brought to public notice, it will naturally lead to adverse criticism. On the other hand, if these are not exposed, the parliamentary committee would be abdicating its function. How this should be done without "lowering the concern in public estimation" would inevitably prove a delicate task.

However, from the point of view of Parliament, this is not the sole difficulty. In view of the present relations between Ministers and the State undertakings, there has been a great enlargement of the power of the Executive, over which Parliament has no control. Parliamentary responsibility can be exercised in two ways; (1) directly through questions on policy and on matters of public importance or through critical review of the annual report laid before Parliament and (2) indirectly through the powers given to the Minister-in-charge to obtain information from the Board of an undertaking or through the practice of consultation between the former and the latter. It is with regard to the second aspect that there is a good deal of divergence of opinion as to the manner in which and the extent to which the Minister should exercise his power, whether specified in an Act or merely implied. In Britain, this power of giving directives has been provided in all the recent nationalising statutes. In practice, this power of giving directives is often regarded as a reflection on a Board's competence though it is not possible to dogmatise on an issue like this.

Dealing with this problem, the Krishna Menon Committee has taken a pragmatic view. What it says bears reproduction here. "It is neither possible nor advisable," it says, "to lay down the occasions or the categories of occasions when a Minister should or should not issue a 'directive' or 'special directive'. Obviously if such 'directives' are issued, the Minister accepts fuller responsibility appropriate to the content of the directive. In any event, his overall responsibility to Parliament remains and he cannot divest himself of it under cover of delegation

by 'directives'. Therefore, it is open to him to issue 'directives', directions, suggestions or warnings, or make any other intervention or give advice that he, in his competence and in his estimation of his public duties, feels he has to". It, however, goes on to say that all these should not mean that the interference of Ministers or, indeed, of anyone outside the concern itself in its day-to-day affairs or even in its planning within general policy will conduce to better working or should be the practice. This should, therefore, be interpreted more as a character of autonomy than as a licence for interference.

However plausible may be this position in theory, in actual practice "autonomy" may turn out to be a mere myth. This is because, as Mr A. H. Hanson points out, if an enterprise is (i) dependent, directly or indirectly, on the Government of its capital finance, (ii) subject to directions from the Minister or Cabinet in matters of policy and (iii) governed by personnel appointed by and dismissable by the Central authorities, its autonomy is just as which only politicians are prepared to allow it or as it is able to persuade them to grant. In the circumstances obtaining today, a Government which provides money is obviously bound to be concerned with the ways in which it is spent, and it is only proper that even at the risk of some abridgement of "autonomy", Government should not forsake its responsibility in the working of the State undertakings. Moreover, it often happens that mistakes are committed by the State undertakings through inadequate appreciation of the Government's policy, and any ambiguity over Government's responsibility will only have the result of putting the managers of these enterprises in awkward situations. This does not mean that the concept of "autonomy" should be turned into a mere myth. As Mr Hanson points out, so long as law is well established, while it would be unable to offer any guarantees against 'political interference', it can do at least three important things in the running of the State enterprises: (1) by exempting the enterprise from the rules relating

to finance and personnel applicable to ordinary government departments, it can assist the enterprise to operate as a rationally organised commercial concern; (2) by limiting the number of managerial decisions that require to be submitted for approval to higher authority, it can ensure that such ministerial intervention as occurs, outside these matters, is deliberate and not merely automatic and thereby encourage the management to accept responsibility and the Minister to exercise self-restraint; and (3) by indicating, in general terms, the type of relationship between the enterprise and higher authorities that is considered desirable, it can promote the growth of conventions in this field.

So far as Parliament is concerned, with the recent developments in the relationships between Ministers and State undertakings, there is bound to be an enlargement of the power of the Executive over which Parliament may not have much control. Though, in theory, a Minister is accountable to Parliament, when Parliament has no formal knowledge of that action (as often it might happen), it cannot hold him responsible. But it also happens that questions are tabled by members. And Parliament cannot, on the one hand, enforce detailed ministerial responsibility for the affairs of an enterprise and, at the same time, criticise the enterprise's management for displaying insufficient initiative. What Mr Herbert Morrison said when he was Lord President of the Council in the British Cabinet bears reproduction here. "I am certain", he said, "that if we are to run these public corporations—highly commercial, highly industrial, highly economic—on the basis of meticulous accountability to political channels, we are going to ruin the commercial enterprises and adventurous spirit of the public corporations in their work". The entire nexus of Government's relations with State enterprises and Parliament's concern for "accountability" of these undertakings involves complex issues and, apart from the law and statute, they will have to be governed more and more by healthy conventions, mutual undertakings and a spirit of give and take.

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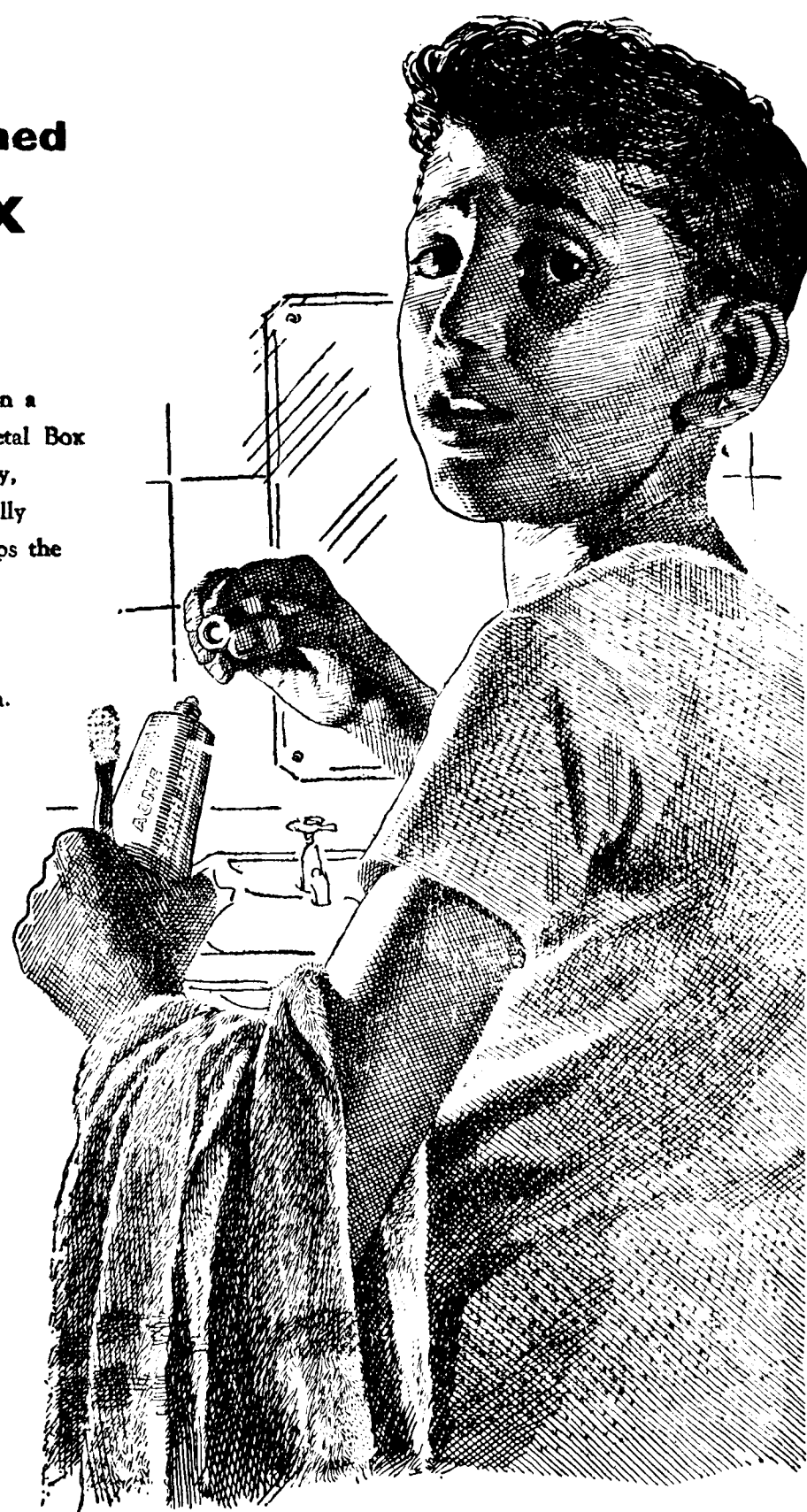
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The Raison d'être of Small Scale & Handloom Industries

BY the time the Second Five Year Plan formally ends, the village and small industries sector will have absorbed a total outlay of about Rs 160 crores. According to present indications, these industries, particularly the small-scale ones which, in some ways, are also complementary to the large-scale industries, are likely to benefit by a larger absolute outlay during the Third Plan period. In this context it would be necessary to know the economic justification for the continued development of small industries. Broadly speaking, this justification is to be found in the fact that a small-scale industry is less capital-intensive than a large-scale one. To be more precise, the average co-efficient of capital employed per worker in small industries is Rs 4,800, according to the Perspective Planning Division of the Planning Commission, and Rs 5,600, according to the Village and Small Industries Division of the Commission. The two estimates, which are not widely divergent, may be compared with the co-efficients of Rs 15,000 worked out for capital employed per worker in large-scale industries manufacturing consumer or intermediate goods and Rs 80,000 in the case of basic and heavy industries.

If the average coefficient of capital employed per worker in small industries is taken roughly as Rs 5,000, it will be seen that it is much lower than the estimate of Rs 7,500 contained in the Evaluation Report of the Working Group on Small Scale Industries. Even that figure of Rs 5,000 may be somewhat on the high side inasmuch as the data used are those of the Model Schemes of the Development Commissioner (Small Scale Industries)—schemes which involve the application of improved techniques and the latest machinery. Where, thus, a small scale industry, which is comparable to a large-scale industry in so far as the use of improved techniques and latest machinery is concerned, involves a capital outlay of about Rs 5,000 only per worker, it is not difficult to see the economic justification therefor. What is more, small-scale industries of the kind may be expected to decentralise the industrial structure further by reducing the size of the industrial unit and by dispersing industries in areas away from the existing centres of concentration.

Another economic justification for small-scale industries is to be found in the favourable coefficient of capital employed to gross output. It is seen that the value of annual gross output per worker ranges round Rs 7,500 for a capital (both fixed and working) outlay of about Rs 5,000 per worker in small scale industries as a whole. Such a favourable capital-output coefficient, it is well known, is not found in large-scale industries,

especially the heavy and basic ones. As for the value added by manufacture in small industries, it ranges between Rs 2,000 and Rs 3,000 per worker; if it is taken roughly to be Rs 2,500, it is further seen that it bears the same proportion to the value of gross output per worker as the value added by manufacture bears to the value of gross output per worker in the case of large-scale industries. As for the coefficient of annual wages per worker estimated for small industries, it ranges between Rs 1,000 and Rs 1,200 something that is comparable to the average level of wages in most large-scale industries. It would thus appear that the balance of economic advantage lies in favour of those small industries in which improved techniques and latest machinery can be employed at a lesser capital cost for a given volume of production and employment.

That is only a general statement broadly applicable to small-scale industries as a whole, manufacturing a variety of consumer and intermediate goods. Since, however, the basic data presented in Table-

Serial No.	Industry.	Fixed capital per worker (in Rs.)	Annual working capital per worker (in Rs.)	Annual production per worker (in Rs.)
1.	Toolroom shop	4,200	...	...
2.	Small centre lathes	4,200	...	...
3.	Writing ink	400	...	9,000
4.	Electroplating	1,900	1,300	...
5.	Roofing tiles	...	700	1,500
6.	Plastic toys and articles	...	...	3,000
7.	Model carpentry workshop	1,700	1,000	2,200
8.	Footwear	2,100	1,600	3,200
9.	Handmade matches	2,100	700	4,400

In the above table some estimates in respect of fixed capital, or working capital, or production per worker in a few industries are missing either because complete information has not been available

Industry.	Capital (fixed and working) per worker (in Rs.)	Annual output per worker (in Rs.)
Model carpentry workshop	2,700	2,200
Footwear	3,700	3,200
Handmade matches	2,800	4,400

These figures show that there are bound to be different capital-output ratios for different small-scale industries depending on the techniques of production. In a number of industries it may be that the capital-output ratios are even more favourable than in the case of handmade matches; in a number of other industries, they may be less favourable. Perhaps, it may be useful for purposes of overall planning to assume the capital-output ratio for small scale industries as a whole to be 1:1 in view of the improved techniques and modern machinery that have to be employed in them to ensure good quality for their products. If, at the same time, a capital-output ratio of 2:1 is broadly assumed in the case of large scale industries, it will be seen that a capital outlay of, say, Rs 500 crores in small industries has an employment po-

A and Table-B of this article are not strictly comparable as between one industry and another on account of the fact that different definitions of 'small-scale industries', 'fixed capital' and 'working capital' have been adopted, the Labour and Employment Division of the Planning Commission has not been able to work out firm co-efficients for individual industries. Again, the estimates provided by the Model Schemes of the Development Commissioner reflect the "ideal" conditions while the estimates provided by the Research Programme Committee surveys in different centres reflect the "existing" conditions in the sector of small-scale industries. Perhaps, it may be practically useful to have the estimates of fixed capital, working capital and production per worker somewhere between the estimates provided by the Model Schemes and the existing conditions presented by the other surveys. Even on this basis, it has been possible for the Labour and Employment Division to work out the relevant estimates for only nine individual small industries for which comparable data could be had. The estimates are as under:—

or because variations have been too wide to lend themselves to an average figure. But, in respect of at least three industries firm co-efficients for capital and output can be deduced as follows:—

tential of one million workers (on the basis of a capital outlay of Rs 5,000 per worker), while the same amount of outlay in large industries will have an employment potential of half-a-million workers only (on the basis of a capital outlay of Rs 10,000 per worker), the total value of production remaining the same in either case.

The Handloom Industry

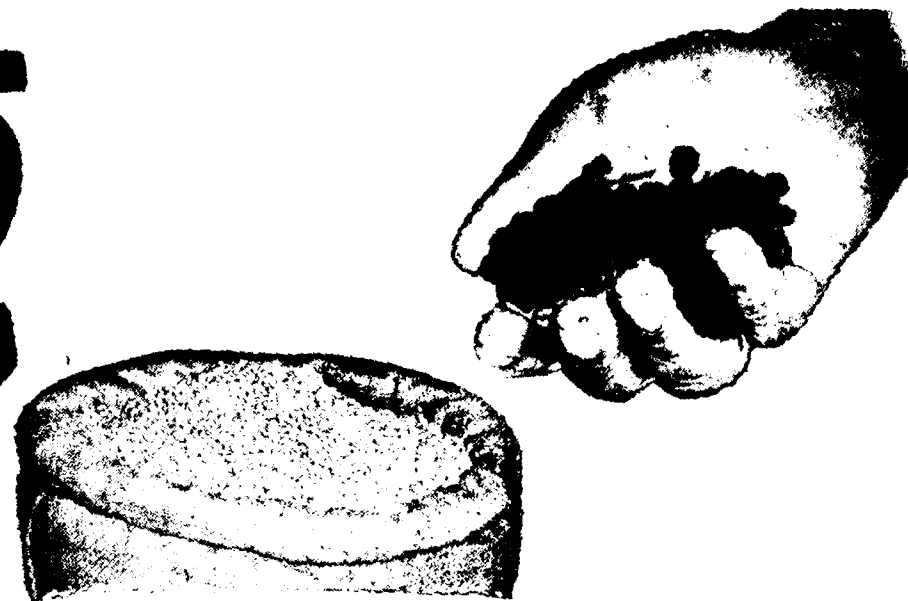
It is true that the handloom industry does not have the kind of economic *raison d'être* that modern small-scale industries have from the point of view of production per worker. In Meerut, Moradabad and Mysore, for example, according to the Research Programme Committee surveys, the annual production per worker in that industry is, respectively, Rs 966, Rs 512 and Rs 646 only. The latest

survey of the handloom industry in Karnataka and Sholapur—covering five districts in all and carried out by the National Council of Applied Economic Research—has also revealed an equally unsatisfactory state of affairs. According to this survey, the annual production per worker is Rs 733 in Karnataka and Rs 586 in Sholapur. No wonder, therefore, that the average annual earnings of a handloom worker are as low as Rs 434 in Karnataka and Rs 175 in Sholapur. The only favourable factor is that the capital employed per worker in the handloom industry as a whole is very low, being roughly Rs 300. With an assumed capital-output ratio of 0.5:1 which, in a way, is supported by the Karnataka survey, the annual production per worker in the handloom industry as a whole may be broadly taken as Rs 600. This is very much lower than the annual production of Rs 5,000 per worker in the modern small industries sector for which a capital-output ratio of 1:1 has been assumed.

It is thus undeniable that, from the point of view of productivity, the handloom industry has not much of an economic justification for its continued existence. But, from the point of view of absolute production, its existence is a stupendous fact because the 2.5 million registered handlooms (though partly inactive) probably account for a total production of about Rs 250 crores' worth of cotton, silk, rayon and woollen textiles. This estimate is based on the assumption of an annual output per loom of Rs 1,000 for the country as a whole, as against the figure of Rs 1,500 per loom emerging from the National Council's survey covering Karnataka and Sholapur. Apart from this argument of production, as distinct from that of productivity, there is the complementarity argument in the sense that the handloom industry is complementary to the wholly spinning section of the cotton mill industry.

But, then, it is entirely possible that production of the magnitude for which the handloom industry is now responsible can be more easily done on powerlooms which will, thus, constitute a more tidy market for the yarn manufactured by the spinning mills. At the same time, the possible introduction, albeit by stages, of an appropriate number of powerlooms—a number which is bound to be much smaller (probably 5 lakhs) than the present number of handlooms with their low per-loom productivity which may be, roughly, a fifth of that of powerlooms—would also mean that the handloom industry as such will go out of existence. While that may raise the earnings of a former handloom weaver now working on the powerloom to the level of about Rs 1,000 per annum as in

How Big



is 46,000 tons of coffee

It may be more than a handful—may be it will touch the sky if bags are placed one upon another. The figure must be read in comparison to the past production records to appreciate how big really it is! In the year 1953-54 production was in the level of 23,000 tons. It steadily increased and in 1958-59 the production of coffee in India has exceeded 46,000 tons. Now, the trend of increase is such that even the conservative speculators think it quite possible to touch the figure of 80,000 tons within a period of next ten years.

This achievement was not due to any freak of nature. Tremendous efforts are continuously made to increase the overall production, yield per acre and to improve the quality of coffee. The Research department of the Coffee Board is engaged in continuous scientific activities to improve the quality and increase the yield by employing modern techniques of cultivation. Free technical advice is provided to all planters regarding manures, plant protection and other cultural operations through a large network of Liaison Officers.

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the organised small industries sector, it would also mean that three out of every four, or four out of every five, former handloom weavers will become totally unemployed.

It would thus appear that the *raison d'être* of the continued existence of the handloom industry is a human and pragmatic one. So, any effort at rationalising the handloom industry cannot, for practical considerations, proceed beyond the point of introducing improved types of handlooms, improved techniques of weaving, and cooperative methods of production, dyeing and marketing. The Government's present cautious policy towards the handloom industry is thus eminently justified. After

all, with the implementation of this policy in recent years, the quality of handloom cloth which, in some respects, has always been superior to certain varieties of mill cloth has registered further improvement. On the score of durability, design, texture and fastness of colour some varieties of handloom cloth continue to command public patronage. The consumer preference for quality is, perhaps, the best justification for the continued existence of the handloom industry which is the biggest small industry of the country and which, with the improvements under way, can yet come to have higher per-loom and per-man productivity and, thus, to provide higher wages to the average weaver.

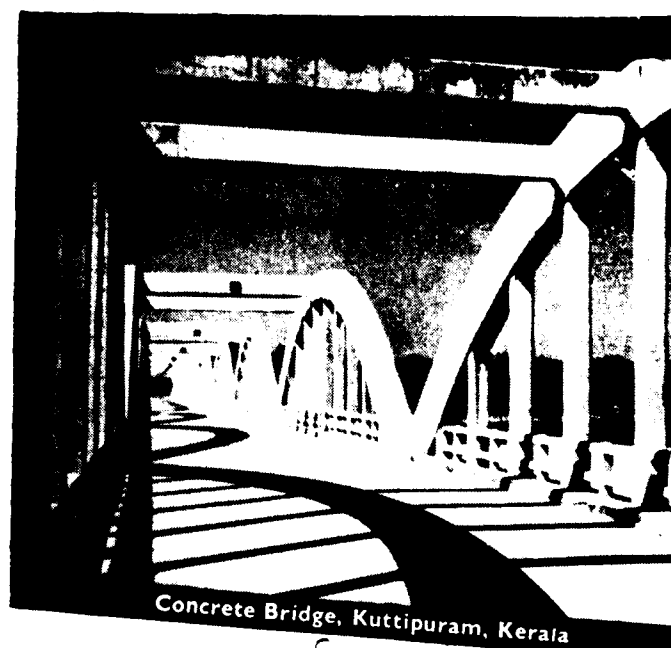
TABLE—A.
Investment and Production per person in Model Schemes of Development Commissioner (Small Scale Industries).

Serial No.	Industry	Fixed Capital per worker in Rs.	Per worker which work- ing capital relates (in months).	Period to which work- ing capital relates (in months).	Production per worker in Rs. per annum.
1.	Wood Sheathed slate pencils	400	1027	12	1150
2.	Tool Room Shop	5429	6496	12	N.A.
3.	Small centre lathes	5194	2262	12	5545
4.	Panel pins and wire nails	4066	3840	3	17181
5.	Writing ink	727	2818	3	11909
6.	Milk of Magnesia	1375	2169	3	11375
7.	Nickel sulphate	5725	1989	3	10050
8.	Cast iron soil pipes	2362	2747	3	13133
9.	Sheep skins tannery	4020	6296	12	20800
10.	Chrome tannery for calf and cow upper leather	9040	3206	3	14400
11.	Industrial hand-gloves	500	1500	3	6500
12.	Electroplating	1000	500	3	3000
13.	Roofing tiles	3287	499	3	2780
14.	Storage batteries	1389	2525	3	11333
15.	Electrical accessories	19	3	3	4260
16.	Glass Beads	345	186	3	860
17.	Plastic toys and articles	286	1150	3	5143
18.	Holdalls	699	2308	3	10384
19.	Cast iron foundry	1614	1985	3	9204
20.	Ferrous and non-ferrous foundry	1960	1000	4	2800
21.	Malleable cast iron	1554	1941	3	8804
22.	Model carpentry workshops	3294	1043	3	6521
23.	Liquor Ammonia	1000	475	1	20 lbs. per day
24.	Glass Ampoules	186	571	1	1743
25.	Glass Phials	316	526	1	1211
26.	Footwear	7411	1424	3	7325
27.	Electrical Motor Stampings	3652	819	1	1851
28.	Fractional & Electric Motors	7414	2210	1	2438
29.	Electric Motor Components	25158	15100	1	21583
30.	Electrical Appliances, etc.	1430	338	3	N.A.
31.	Chalk Crayons	300	300	1	3750
32.	Cycle Leather-saddle tops	1933	814	1	N.A.
33.	Squirrel cage type induction motors	5767	4671	3	23143
34.	Batteries	1919	1380	3	8533
35.	A small carpentry unit	703	682	3	3222
36.	Buff calf leather for chappal uppers	1920	1913	3	9176
37.	Low tension porcelain insulators	5312	563	3	1 ton per day
38.	Handmade matches	263	317	3	2466
39.	Polythene packing material	2121	2304	3	N.A.
40.	C. T. S. Cables	2675	2867	3	12759
41.	Mus'room type automobile valves	2139	950	3	N.A.
42.	Drawing and filter papers	N.A.	250	1	N.A.
43.	Hand moulded firebricks	5603	1316	3	7445
44.	Decorated Glasswares	265	692	3	3163
45.	Cutting of Glass articles	275	320	2	2250
46.	Hollow Glass beads	105	769	3	4000
47.	Firebricks	3470	1506	3	7105
48.	Transfer, decoration, gold lining and enamel painting on crockery articles	1670	679	3	3700

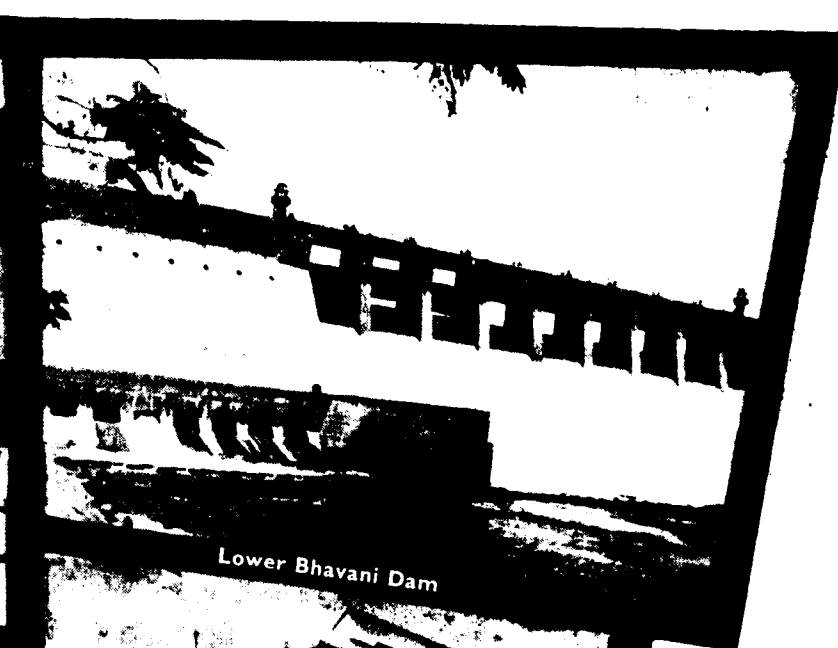
TABLE—B.

Investment and Production per person in Small and Cottage Industries as Revealed by the Research Programme Committee Surveys.

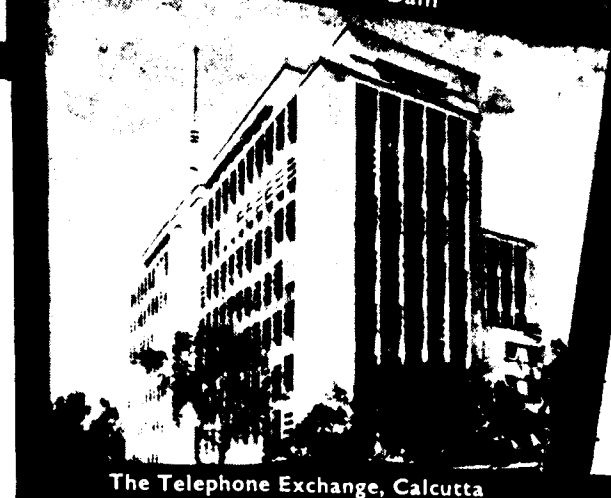
Serial No.	Place and Industry	Fixed Capital per worker in Rs.	Per worker which work- ing capital relates (in months).	Period to which work- ing capital relates (in months).	Production per worker in Rs. per annum.
Delhi:					
	Flour Mill	736	1221	12	7383
	Trunk Manufacture	148	269	12	3279
	Leather Footwear	482	425	12	3058
	Light Engineering	998	567	12	3594
	Electrical Goods	1168	1509	12	8681
	Hosiery	1588	1765	12	6497
	Soap	626	2527	12	1760
	Fcundries	505	599	12	1531
	Oil Mills	720	873	12	14674
	Drugs	1165	1129	12	3864
	Electroplating	702	496	12	2392
Saugor:					
	Shoes and Tanning	92	85	1	1132
	Earthenware	18	6	1	228
	Bamboo Work	3	20	1	386
	Iron Implements and Tools	94	65	1	993
	Woodwork	148	35	1	844
	Oil Expelling and Soap	111	182	1	2572
	Bell Metal and Brassware	97	113	1	1720
	Woollen Blankets	14	13	1	268
	Jewellery	80	334	1	3719
	Agarbatti	13	34	1	1454
	Dyeing & Printing	241	37	1	654
	Stoneware	26	1	1	443
	Horn Comb	10	12	1	258
Meerut:					
	Handloom	23	66	12	966
	Hosiery	155	240	12	1951
	Soap	106	645	12	6341
	Leather	62	47	12	2062
	Scissors	63	198	12	2695
	Sports Goods	81	704	12	2840
Moradabad:					
	Metal Industries	518	245	12	2190
	Tobacco	1830	653	12	6117
	Chemicals	574	107	12	1911
	Wood	417	140	12	1773
	Leather & Leather Product	844	28	12	1227
Sivakasi-Sattur:					
	Matches	42	155	12	6310
	Paper Toys	83	79	12	605
	Printing Ink	141	N.A.	...	6166
	Glue Making	95	194	12	1982
	Litho Presses	1130	330	12	2600
Amravati:					
	Clothing	401	582	12	2175
	Oil, Soap and Chemicals	704	530	12	5909
	Metal	627	379	12	1155
	Wood	445	584	12	2971
	Leather	245	111	12	2147
Bombay:					
	Flour Mill	1119	291	12	1332
	Sweatcoat	465	249	12	3797
	Bidi	68	161	12	981
	Dyeing and Printing	406	189	12	2665
	Leather Products	218	398	12	2661
	Footwear	162	153	12	1817
	Metal Tinning	199	210	12	6033
	Metal Products	865	346	12	3083
	Engineering Workshop	1701	596	12	2647
	Boxes and Packing Cases	36	794	12	5083
	Furniture	234	649	12	2885
	Photography	1276	318	12	2912
	Photo Mirror Frames	225	283	12	2702
	Store and Tin Jobbing	93	66	12	1203



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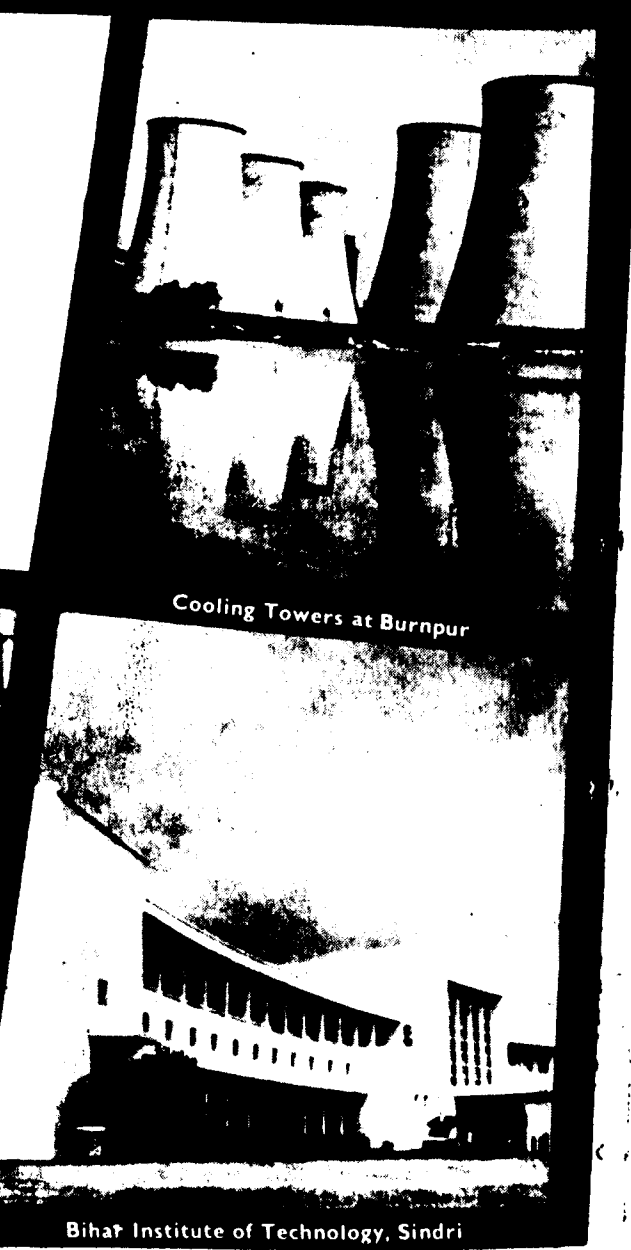
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THE economically advanced countries of the world have attained their present heights, not by a sudden flight but through a lengthy, gradual and strenuous process of change. Taking the rate of Capital formation as an index of economic progress, Professor Ros-
tow points out that the development of a traditional society into a mature society is marked by a rise in the rate of investment from about 5 per cent of the national income to 10 per cent. According to him, this vital transition covered the years 1783-1802 in Great Britain, 1830-60 in France, 1843-1860 in the USA and 1850-1873 in Germany. *This gives an average of about 25 years. But it is to be remembered that, in all these countries, this "take off" stage was preceded by a longer period of social evolution which helped in the process of economic growth. This preparation period combined with the transitional stage involved some significant changes in the national economies such as rapid advance in agricultural production, industrialisation, mechanisation, adoption of improved techniques, development of efficient financial institutions, better transport and communications, increased foreign trade and a gradual shifting of resources from consumption to profits. However, development in these countries did not conform to any set pattern. On the other hand there was a great degree of variety and an element of spontaneity in economic growth. The pattern of development in each of these countries was determined, by and large, by the economic, social and political conditions prevailing in them.

Since the close of the second world war, there has been a remarkable awakening in many of the under-developed countries of the world. These include most of the East Asiatic countries, countries of the Middle East and of South America. In the early post war years, most of these countries freed themselves from the shackles of a colonial regime. They found themselves in a position to shape their political and economic destinies along independent lines. Becoming aware of the great gulf between themselves and the economically advanced countries of the world, they were impelled by a strong urge to build up their economies as rapidly as possible.

This sudden awakening of the less developed countries to the need for quick economic improvement has implied two things. In the first place, Governments in these countries have generally assumed the responsibility in initiating the process of growth and in carrying it out along planned lines.

*Economist, dated August 15, 1953, p. 409.

Implanted Economic Development

By Dr D. BRIGHT SINGH

This has been necessitated in the main by the lack of entrepreneurial skill in most of these countries and also by the fact that the building up of the social overheads necessary to promote growth is possible only by the State with its vast resources. Secondly, being late comers in the field, the under-developed countries find it possible to import improved techniques of production evolved, tried and made use of in advanced countries.

Delay in the struggle for growth has some advantages. Not only technology but also technical skill can be imported. The developing economies of today can learn from the experience of advanced countries, skip the period of experimentation and save the huge amount of capital which would otherwise have to be incurred on research, investigation and study. In fact, late comers can build on the technical knowledge and experience of the pioneers. Furthermore, our knowledge of the working of national economies has improved vastly in recent years. The techniques of generating incomes and canalizing incomes through taxation and other fiscal means are much advanced, with the result that, given the resources, it is possible now to adopt more effective and less strenuous means of mobilization than were available about a century ago. The period of austerity involved in the building up of capital can thus be much reduced. Theoretical knowledge helps also in better estimating the potentialities for growth of different types of investment and the overall effects on the economy of investment in particular lines of production. Better insight into the operation of the economic mechanism makes it possible to design economic development and ensure that growth takes place along desired lines, avoiding the pitfalls of haphazard growth.

But, against these advantages have to be set the evils and dangers involved in the type of economic development that is going on in many of the under-developed countries. Some of the difficulties and problems they confront in the earlier stages of their growth stem primarily from the fact that in them the techniques and pattern of development are implanted. In a large measure, their models of growth have been copied from foreign countries with a different social and economic background. Economic growth in these countries is sponsored growth and not very much a spontaneous one.

The benefits of gradual spontaneous growth are clearly seen in the nature of the technological advancement that took place about a hundred years ago in some of the present day developed countries. The techniques of production were adapted to the economic conditions prevailing in these countries and particularly to the factor supply situation. At the time when industrialisation on a large scale started in Great Britain, population per square mile was 115 only. With birth rate and death rate remaining high, the rate of growth of population also was low. Fast changes in agricultural production and commercial expansion helped in the acquisition of a large amount of capital. An advantageous capital labour ratio resulted in increased productivity and facilitated rapid accumulation of wealth. With economic advancement, the rate of growth of population also declined, so that rapid increase in national income not only helped

large capital formation but also necessitated the adoption of labour saving techniques of production. To the extent that, even in the early stages of development, capital formation had a good start over population growth, further increase in population became an asset to the country. More or less the same conditions obtained in other countries like Germany, France and the USA. In all these countries, there was no problem of excess population in their initial stages of development.

On the other hand, the position in the under-developed countries of today is just the reverse. Most of them are very much over-populated. Theoretically, the factor supply situation in these countries would warrant the adoption of only labour intensive methods of production. If industrialisation on a big scale requires the equipment of labour with the same amount of capital per capita as is available in Western advanced countries, a country with a large population like India would require more than ten times the capital that is now employed in production. But industrialisation is undoubtedly a mark of economic progress, and capital intensive methods have therefore been employed in these under-developed countries in spite of scarcity of capital and excess of labour. Adoption of such techniques, wherever possible, certainly increases productivity and ensures larger total out-put. But, in the short-term at least, the employment potential of such productive methods is very much limited and hence these under-developed countries in the early years of advancement experience the somewhat strange phenomenon of large scale unemployment co-existing with economic expansion. If employ-

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ment creation (even if it involves a comparatively slow rate of growth) is the main consideration, the techniques of production that are suited to countries like India at the present stage of their development are those which had been used in advanced economies probably some hundred years ago. In so far as capital goods of that type are no longer produced, young developing economies of the present day have to waver between capital intensive and labour intensive techniques. A satisfactory combination of these two is what appeals to commonsense and what has been tried now in our country; but, to the extent emphasis shifts between the alternatives, the inevitable consequence is either increased productive possibilities with unemployment and inflation or painfully slow progress with greater employment potentialities.

Apart from the fact that highly capital intensive techniques do not fit in well with the resources position in the under-developed countries, there is another problem arising out of the lack of technically skilled labour. Advanced techniques of production require the complementary factor of skilled labour. Since this is in short supply in most of the underdeveloped countries, costly capital equipment in the form of machines come to be inadequately utilized or, what is worse, badly and negligently used.

Moreover, the successful implementation of the programmes of development based on the model of advanced countries requires as a pre-condition the existence of a sound administrative machinery. This need is in fact greater in the underdeveloped countries because Governments in these countries have assumed large responsibilities in initiating and engineering growth. To a large extent, they attempt to do much of what the entrepreneurs accomplished in countries like England, the USA and Germany in the corresponding stages of their development. An efficient administrative system is needed, firstly, to formulate and draw up the plan of development; secondly, to mobilise the economic resources and to utilise them properly; and, lastly, to take care of the economic and social problems that may arise out of the implementation of the schemes of development. Recently, a Committee of experts under the United Nations Expanded Programme of Technical Assistance has indicated that there is great scope for considerable increase in the tax revenue of some of the less developed countries of the world by improvement in administration alone.

As important as well adapted techniques of production and administrative efficiency, is the social setup that is helpful to economic advancement. The structure of the economy and the lines along which

progress takes place reflect broadly the social pattern of the community and the attitudes and prejudices of the people who constitute the society. Material progress calls for the existence of a certain attitude among the people which, for want of a better term, may be called material mindedness. Any plan of economic development which is inspired by the visible symptoms of progress in advanced economies, but which is not based on a realization of the full significance of the social factors that are at the back of economic progress, cannot succeed. Industrialisation, rise in incomes, larger savings, investment and capital formation of the scale found in well developed countries—all these require the precondition of a certain social milieu which is by and large absent or at best dormant in underdeveloped countries. If the spirit of enterprise and acquisitiveness, the social prestige attached to wealth and wealth earning capacity, discipline, the capacity for and preparedness to do hard work, the spirit of co-operation and the ability to look far into the future—if such social characteristics are absent or under-developed, it is necessary to foster them and at the same time to adopt the means of economic improvement to conditions actually existing. This social deficiency is particularly manifest in the attitude of labour. A disciplined and hard

working labour force is a 'sine qua non' for stable economic progress. Insistent clamouring of labour for rights and privileges, without recognising the fact that rights and privileges go with duties and responsibilities, is a symptom of social immaturity.

It remains to be said, however, that the evils of implanted economic development are due not so much to implantation as such, but to the fact that the exotic element in it is not adequately recognized. When economic development is planned along the lines that it has proceeded in Western countries, it is clear that adequate measures are to be taken to mould and shape public attitudes in a manner requisite for such advancement. Particularly in the matter of techniques of production, it is of the greatest importance to see that these are as far as possible suited to the conditions existing in the country. This is not an argument for going back on the technological front; but it is an argument for evolving new techniques, and devising new methods of factor combinations that will yield the maximum results with the minimum of waste and disruption. Herein lies a great responsibility on our engineers, technicians and social leaders. There is also the need to tone up the administrative mechanism and to infuse greater enthusiasm and promote a co-operative attitude among all sections of the people.

Responsibility and Remuneration

By NITISH R. DE

Job Evaluation as a tool for measuring work is now a well-established technique in the field of industrial relations. Its usefulness is many-fold and any standard text-book on the subject will indicate that this technique can play a significant role in eliminating waste motions, determining standard day's tasks, wage setting, figuring accurate costs, arranging grades and routes of promotion, evolving trade tests, establishing a curriculum for vocational education, determining methods of teaching vocational activities, securing a basis for choice of a vocation and securing job specifications for the selection of workers. Since the days of F. W. Taylor whose pioneering work on the subject is still acknowledged, the techniques of work study and work measurement have contributed a good deal towards the increase of industrial productivity, firstly, by the elimination of unnecessary activities and movements, secondly, by better planning, manning and control of work, and, thirdly, by equitable incentives which reward those who put in extra effort. Work measurement, particularly, allows incentive schemes to be founded on a basis of facts rather than bargaining or on opinions. Introduction of the tools of time and motion study enables an establishment to set up acceptable and workable standards of performance for individual workers or groups. It is thus no wonder that the industrially advanced countries have been using these tools with earnestness. Since the underdeveloped countries are now on way to accelerate the pace of industrialisation it is more or less certain that the tools of job evaluation will find ready acceptance among the progressive employers.

"The first category of yardsticks—the work yardsticks—includes such factors as: physical weight of the work, distance travelled, danger, accuracy required, speed of work required, cleanliness, discomfort or dirtiness, quality of finish, numbers of subordinates controlled, seriousness of the effect of negligence, complexity or straightforwardness, and value of the materials worked with. Of such characteristics, serious scrutiny will show that all but three—danger, discomfort and dirtiness—are likely to be misleading if taken by themselves, or together as yardsticks for measuring and comparing jobs. And these are factors relevant to the granting of special additional payments over and above a prescribed rate for a job, rather than a basis for a rate structure itself."

"Accuracy required in work often arouses great passion in discussion. Working to fine tolerances, for example, is considered by those doing it as an argument for higher rates than for doing rough-finish work. What is often left out of account in such argument is the quality and character of the tooling... And the same considerations would apply to quality of finish. Speed of work, like the foregoing factors, may make a job more difficult, or may not affect it at all..."

"Numbers of subordinates controlled is a favourite index of size of job... An increase in the number of subordinates granted for carrying out an increasing number of laid-down administrative duties could reflect a decrease in responsibility. And a junior foreman with a number of subordinates is not necessarily doing a bigger job than, for example, a designer working on his own on a machine-tool but having no subordinates at all."

"The second category of yardsticks—the personal yardsticks (those based on the idea that jobs can be compared by comparing the persons needed to do them)—proves no more helpful. Examples of such yardsticks are: the skill, training and qualifications, experience or length of service required in order to do a job; or other personality characteristics such as courage, resourcefulness,

extenso who has made a deep study of the issue.

"The yardsticks that are currently used in assessing and describing work whose payment is in question may be divided into two main categories: work yardsticks and personal yardsticks. The work yardsticks relate to comparisons between jobs on the basis of various aspects of responsibility that they have in common. The personal yardsticks relate to comparisons between jobs on the basis of comparisons between persons who would be required to do the job in a reasonable and efficient way."

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determination, reliability and imagination.... But once again experience shows that they are extremely difficult to apply in practice in comparing jobs. This difficulty is well known, for instance, in the job evaluation methods that make use of rating scales for assessing the relative importance of jobs by rating the amounts of such qualities required in them."

"In the first place, all these personal qualities are notoriously difficult to measure. Even the criterion of training... presents difficulties in comparing, for example, a five-year apprentice course, a four-year university course, and a ten-year period of on-the-job experience; and managing directors' jobs, in particular, are difficult to express in terms of the amount or type of training required. As for the other psychological criteria, their assessment leads into all kinds of subjective comparisons, admirably suited for negotiators in emotional and partisan argument with which society has become quite familiar in reading about the wage-differential disputes that afflict it."

"...Not one of the criteria of the type outlined above can be used for comparing jobs of different types.... Postmen cannot be compared with milkmen, porters with railway engineers, invoice clerks with draughtsmen, machine operators with typists, electricians with research technicians... Some, such as distance travelled, apply to same jobs, and not to others. Others, such as number of subordinates or accuracy of work, may apply to all, but simply do not have the same relevance or meaning in one set of jobs as they would have in another."

"Negotiations about payment using seemingly objective criteria such as those outlined above may readily and easily revert, in a completely unrecognised way to mere argument over differences in intuitive judgment over jobs."

"The lack of an objective foundation upon which to pin discussion about differentials may not commonly be held to be a primary cause of industrial discord. But it cannot be denied that it does contribute to suspicion and discord in negotiation, and it certainly does not facilitate agreement." (2)

This is not all. The implication of the unsatisfactory and non-objective nature of these orthodox criteria so widely in use can be assessed well when one faces the grading and promotion system. To quote Jaques, "one of the effects of unclarity in the grading system was to complicate the matter of promotion. It was considered that the company (a) was in danger of losing good people because there was no basis on which to give them what they would feel to be as appropriate status. The frequently made comment was

that a person had to change to different kinds of work in other parts of the firm in order to change in grade, because of the obscurity surrounding the possibility of promotion within the kind of work he was doing."

"A further consequence of the absence of a clearly understood grading system was that individuals did not have standards against which to assess their progress in the organization." (3)

SOME ILLUSTRATIONS

The validity of these criticisms made by Jaques can be tested against the wage policies pursued by some economically advanced countries. We would particularly like to refer to some socialist countries where determination of wage is not so much a matter of higgling or of chance, ad hoc settlement as of planning on socio-economic considerations. In the USSR wage rates are fixed on the basis of the well known principle that in addition to a guaranteed basic wage there should be incentive payments dependent on conditions of work, (e.g. dirtiness, high temperature, etc.), regional difficulties (e.g. irksomeness of the climate, isolation, substandard housing, etc.), skill differentials, and so on. But even then it was found that the actual wage differentials between industries differed substantially from the differentials intended.

"One reason for this is that although the same factors have been taken into consideration in determining wage scales and wage rates within all industries the weights given to such factors have varied arbitrarily from one industry to another. For example... the fishing and fish-processing industries in which it was intended that average wages should be substantially lower than in the engineering industries and the coke and chemical industries, in fact pay average wages equal to those paid in the latter and some 20 per cent higher than in the former. These results have come about because of the considerably higher weight given to the factor of location of enterprises in the fishing and fish-processing industries than in the others." (4) Since no comprehensive wage evaluation was undertaken in the USSR since 1931, numerous wage adjustments carried out in particular enterprise and industries only contributed towards wage distortion.

The principle of payment by results so strongly advocated in the socialist countries did not result in a satisfactory wage policy mainly because there was no scientific basis to fix up the production "norm". According to a communication to the I.L.O. by the Lenin Steel Works, a large metal-

(a) The Glacier Metal Co. where Jaques carried out his research.

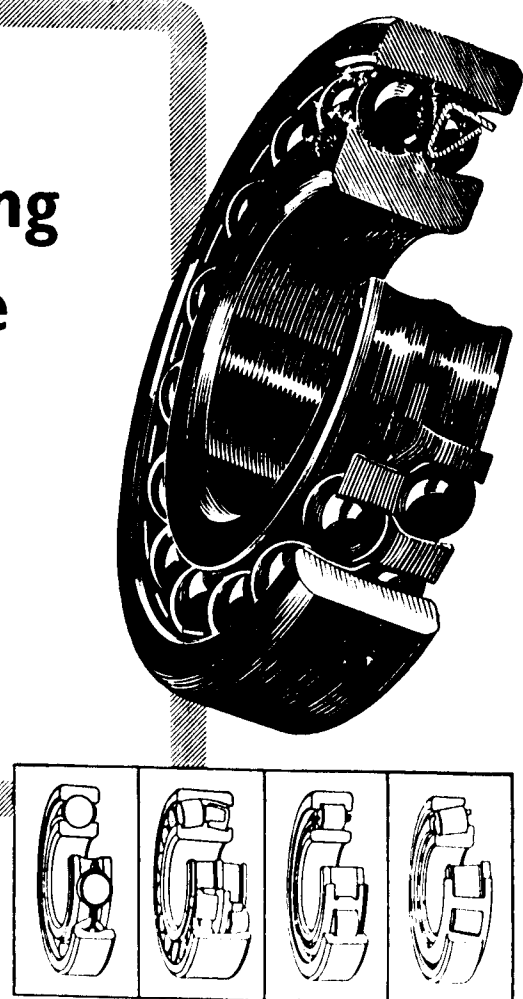
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lurgical enterprise in Poland, "substantial distortions in the earnings of various categories of workers seem frequently to have been due to the combined effects of unscientifically determined output targets and bonus rates and the application of different incentive systems to the different categories of labour concerned. . . . Whereas the direct production workers were remunerated according to a piece-work system, the maintenance workers were paid according to time-plus-premium systems. Since minimum output targets for piece work generally—and deliberately—fixed at a relatively low level, they were easily exceeded and the production workers obtained bonus payments equal to 220 per cent of the basic wage on the average. On the other hand, the maintenance workers could not exceed their basic time wage by more than 70 per cent. Moreover, there was a substantial disparity between the hourly minimum rates of the two categories of workers, in favour of the direct production workers. As a result, direct production workers were earning much more than maintenance workers responsible for the upkeep and repairs of complicated and costly equipment." (5)

The above analysis indicates that the orthodox job evaluation techniques have met with a measure of failure not only in free-enterprise economies but in socialist economies as well which is a vindication of the criticism that

the failure is not so much a failure of the human agencies entrusted with the task of employing the techniques as of the inherent defects in the techniques.

It is thus apparent that there is need for an objective and universal yardstick by which to measure the content of a job with a view to fixing the remuneration for the same. Before we proceed further, it may be pointed out that the orthodox work measuring tools need not be altogether scrapped. Jaques himself admitted that in special circumstances extra payments might be made for dirt, danger, unusually unpleasant environment and so on. Sweepers working in man-holes, meteorological staff watching the effect of heavy rainfall on the flow of water in the Brahmaputra in the interior of the Himalayas and the doctors who work among the primitive tribes in Belgian Congo obviously deserve special consideration in respect of pay. Apart from these very special cases, in the words of J. M. M. Hill, "Orthodox time and motion study may be considered as directed towards two ends: first, the limiting of discretion by laying down new prescriptions for workers, and second, teaching them means of using their discretion better so that new standards may be set." (6)

Yet another point to remember is that whatever might be the shortcomings of Soviet wage policy as mentioned above, there are certain

aspects of this policy which deserve careful consideration. We shall revert to this issue later on while analysing Jaques' theory of wage determination.

PROGNOSIS OF A NEW THEORY

The problem as we find it is to determine suitable payment and appropriate status for workers for the jobs they undertake. Payment and status to be satisfactory and abiding should accord with one's sense of fair and just return for the work done. The purpose is, therefore, to find a means to explore and to analyse manual and non-manual work objectively, to devise a method that may give an objective measure of the level of work or responsibility and some propositions about the possible existence of explicit and definable salary and wage differentials emerging from the use of the method to be evolved.

Dr. Elliot Jaques carried out his research at the London Factory of Glacier Metal Co. The issue at stake was to establish criteria with which to assess degrees of responsibility and authority. "How, for instance, could the salaries of young clerical workers correspond in any systematic manner at all with those of experienced works supervisors whose attitude towards salary was very much influenced by what the hourly-rated workers were earning? And how could satisfactory differentials in payment be established between

the salaries received by Grade III (a) staff members and the wages of hourly-rated operators—when the grade III average earnings reflected such a wide range of individual salary levels?" (7)

The justification for a new, unbiased approach was no doubt admitted in the Glacier Metal Factory but it was no easy matter for the employees there to give up all attachment to the traditional elements which combine together in job evaluation system. Gradually, however, it was possible and with passage of time the employees understood and appreciated the rationale of the new approach.

TIME-SPAN OF DISCRETION

The starting point in the new approach is that earnings in a firm may be expressed in terms of different periods of time. Hourly-rated workers have their earnings expressed on the basis of an hourly rate, some employees are on a weekly rate, others are on a monthly rate and some members of the higher management are on an annual rate. Besides, it is also found that in certain respects the time periods seem to be related to the 'size' of the job. The longer the period in terms of which a person's salary is expressed, the longer period of notice he is to give in case of resignation.

(a) It refers to office and clerical workers and some office supervisors.

From these premises arises an enquiry—if it is possible to establish a measurable relationship between 'size' of responsibility and the time over which it is carried out? A job consists of two parts—the prescribed element and the discretionary element. The prescribed content of a job consists of those elements of work about which an employee is left with no authorised choice. Prescription may be in respect of result expected as also in respect of the limits set on the means by which the work is to be done. Discretion is brought into play when the character of the work itself and routines governing the manner or method of work do not automatically determine for the employee doing the job the best way to do it in every respect, since our concern is not with the quantity of work (i.e. the amount of work done) but with the level of work (i.e., the size or amount or intensity of responsibility in a job) we cannot set up any correlation between the prescribed part of job and its time span. "The reason why prescribed content was found to be useless, and misleading, as a measure was that failure to conform to prescribed methods and results could only come about through a mistake, through carelessness, negligence, or dishonesty. And there was no way of establishing the consequences of such behaviour. Anything from negligible to disastrous consequences might follow. Even in the very simplest of

jobs it was possible to cause very damaging or dangerous happenings through clumsiness or mistakes or negligence. . . ." (8) A pointsman given a prescribed job of setting a particular point at a railway yard by the control tower cannot possibly put up the plea that his job calls for high wage because his mistake in setting the correct point may cause a serious train accident.

All jobs, however, call for some exercise of discretion and no discretion is allowed to continue indefinitely without being subject to review by a superior. Even routine jobs or jobs of lowest manual calibre contain some elements of discretion. A typist in an office is given her share of work by her superior. She, while doing the day's work, plans the speed at which to type out the letters and statements without running the risk of not fulfilling the standard expected of her.

Thus, the first major task in evaluating a job is to find out the discretionary contents of that job. It has, however, been noticed that the discretionary content of a job is usually largely unfamiliar to anyone but the person doing it or his superior who supervises the job. Once that is done, the next step is to measure the quantum of discretion by the time span technique, i.e., to find out the length of time after which the review mechanism comes into the picture in respect of a particular job. Given a clearly structured work situation i.e., a

normal hierarchical chain of command, "a review mechanism is any systematic means by which a manager becomes aware of the quality of his subordinate's use of discretion. . . . It may be noted that review mechanisms fall quite naturally into two classes. First, there are what may be called "direct" review mechanisms in which a subordinate hands back a completed piece of work to his manager for full inspection, or where a manager deliberately and actively examines his subordinate's work. . . . On the other hand there are. . . indirect review mechanisms in which a manager learns from some other source or sources whether or not his subordinate has been using his discretion well or badly." (9)

While, however, assessing the time-span of discretion in a job it is to be remembered that grossly bad judgment by a subordinate can usually be discovered fairly quickly by a manager and even in senior jobs continuous gross misjudgments cannot go on for long. We are, therefore, concerned with not gross but marginally bad judgment while measuring discretion by time-span.

The next step is to ascertain the maximum period of time-span of discretion in a job. If the job is a single-aspect job, such as, copy typing, measurement is easy. In a multiple-aspect job each aspect of work may involve a different kind of discretion being exercised subject to a different kind of re-

view mechanism and hence different aspects may have different maximum time-spans of discretion. It is, however, not difficult by actual analysis to fix up the maximum time-span out of a whole series of time-spans.

It was found by actual analysis that "the higher the grade, and in general terms, the higher the executive level, the higher was the time-span. This finding was reinforced by the additional finding that positions in the same line of command showed descending time-spans as the analysis proceeded from superior to subordinate positions. On reflection, it became apparent that this latter finding must inevitably obtain: a manager simply could not work within a shorter time frame-work than his subordinates; the period of his discretionary freedom must encompass the periods within which his subordinates worked. . . ." (10)

One significant relationship was also noted by Jaques while working out his plan at Glacier Works. Members whose work carried the same maximum time-span of discretion, whatever their field of work, were found to express—with only slight variations—the same salary as being a fair return, at the general rates then obtaining, for the work they were doing. Thus, for example, of eight members whose work was established by themselves and their managers to carry a maximum time-span of one month, all quite independently, stated practically identical sums of



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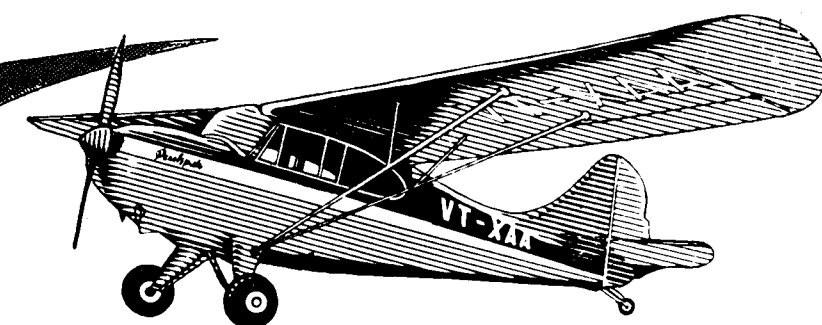
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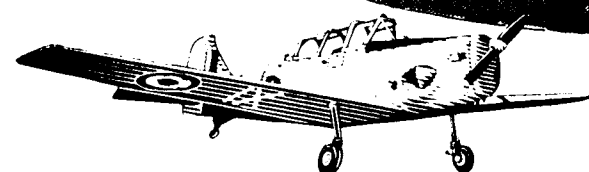
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money-about £12.10s per week-as salaries that would satisfy them as being a fair return for their work. The findings held true at all levels of work and was tabulated by Jaques as follows:—

Maximum time-span.	Expected Earnings (1 April, 1954.)
One hour	£8.0s. per week
One day	£9.0s. " "
One week	£10.10s. " "
One month	£12.10s. " "
One year	£980. per annum
Two years	£2,000 " "

The analysis also suggests that it is possible to construct a range of ranking and salary brackets within the framework of an organization. If the level of work in any immediately subordinate role moves either above or below the established levels of work, the position will have to be reset at a higher or lower level, unless, by a redistribution of duties between several jobs, the established levels of all can be maintained. Not only this. It is also possible to calculate the range of level of work in each position. This range is the amplitude within which work can be assigned to a member at a job from the lowest level compatible with the required job being done to the highest level available to be assigned. Thus it allows maximum and minimum salary levels to be fixed on a firm basis

enabling the task of career planning for employees with growing skill and capacity easier and more precise.

MANUAL WORK AND HOURLY-RATED OPERATION

Manual work and work on a machine are often repetitive in character. In such jobs it is found advisable to have as starting point the prescriptions laid down. Thereafter by analysing the techniques involved in complying with the job, it is possible to find out the extent of discretion needed to set the pace for the work. The cost of inadequate discretion on such a job would be that of the time lost should the operator use poor discretion and fall behind. The use of poor discretion in this way might be noticed perhaps within half an hour or so by his superior who would feel that the job was not being done at a sufficient pace for the smooth continuation of the next operation.

"At the other extreme, there were very complicated jobs like those carried out by highly skilled machinists in setting the machine. A great deal of discretion was required in setting; for example, the grinding of tools by hand called for discretionary control by the operator to get his tool ground just right. Discretion might then be required as to the best way of

organizing the work, marking off the job, in the manipulation of tools in such a way as to take cuts of just the right amount to avoid breakage of tooling or marring of work and judging whether the quality of finish was satisfactory when the work was completed. Jobs of this kind were found in which the operators might be required to work on a particular job, or a batch of work, for periods of two to three weeks, without a full review of their work by their managers." (11)

Here, one finds that the concept of avoidance of damage by the right use of discretion is introduced by Jaques. It is found from experience that the jobs which carry the greater amounts of potential discretionary damage in them are the ones that the operators consider to justify higher rates of pay. There thus emerges a possible correlation between the degree of responsibility and the amount of damage-avoidance which the operator is called upon to ensure by the right use of discretion.

One relevant issue may be raised at this juncture. The part that a person's skill, knowledge and experience play in his career needs assessment in the context of the time-span of discretion theory. Skill and experience of a person may determine the level of work

he is fit for and thus ascertain his pay and status. Normally skill and experience and level of work should be consistent with each other. When, however, a person's skill or experience is greater than the level of work he gets paid for his work and not for his experience. Such a situation cannot subsist indefinitely, for a person with higher skill and experience will seek to have a job with a range of time-span of discretion corresponding to his level of skill and experience.

AN ILLUSTRATION

After having carried out a detailed discussion on the new technique it is worthwhile at this stage, to offer some examples of time-span analysis. Jaques himself offered an analysis in respect of the Regional Progress Officers of the Glacier Factory in his book entitled "Measurement of Responsibility". His associate, J. M. Hill also undertook the analysis in respect of a draughtsman, a machine operator and a research worker and he has done the job expertly. We shall, for the sake of not making this article too long, give a summary of the analysis of the work of a designer-draughtsman in terms of time-span methodology.

"Title: Designer-Draughtsman

Organizational Position: Responsible to Manager, X Dept. Area of work: Designing Equipment.

"Discretionary Content and Review Mechanisms: On receiving a specification from his manager laying down what the equipment designed will be expected to achieve, the Designer-Draughtsman must work to produce a drawing which should provide a basis for manufacture. He must use his discretion concerning the mechanical design and arrangement of the parts, shapes, sizes, and tolerances involved, the type of materials to use, methods of lubrication, etc.

"With a newcomer or with someone relatively inexperienced in the job, a review, will be carried out in detail of the drawing and at the present time for the most complex pieces of equipment that the Designer-Draughtsman will have to design he will be allowed up to a maximum 6 weeks to produce his final drawing. The manager of X department would prefer, however, to have someone in the job on whose use of discretion he could rely without a detailed review of the drawing and in such a case discretion would be allowed to continue until at the most the equipment had been manufactured and tested and sufficient reports made for a review to take place. This would take up a total of 6 months following the production of the drawing.

"Range of Time-Span: From the above analysis, the range of maximum time-span of discretion extends from 6 weeks up to 7½ months.

".....A number of points may be noted about the above job. In the first place, in terms of all the overt features of the actual activities carried out by the draughtsman in question, there may be no discernible difference between the work he is carrying out at a 6-week time-span of discretion and the work he may eventually carry out with a 7½ month time-span of discretion. A conventional job evaluation of work at the 6-week level and work at the 7½-month level may show up no difference. Moreover, although this particular job has been described within the 6 weeks to 7½ months range it is worth examining briefly the extent to which jobs of the same kind (i.e. concerned with machine or equipment design) can be set up with shorter or longer time-spans of discretion than the range noted above. For example, shorter time-span of discretion might emerge if the manager in question, instead of allowing his subordinate to carry on for 6 weeks in making a drawing, were to split the job by asking him first to design the main features, second, to decide on materials and tolerances, and third, to decide other matters such as the kind of nuts and bolts concerned, where each of these might be reviewed at intermediate stages during the 6 weeks. Normally, however, this would be a difficult, irksome, and time-consuming way of getting the work done. Longer term work, carrying a longer time-span of discretion than 7½ months, would emerge in this case, as already noted, if the draughtsman in question were given either more complex pieces of machinery to design (taking longer to draw, longer to make, and longer to test) or if at the other end of his work cycle he were expected himself to decide upon the kind of specification required. Were he to carry all this out, however, he would be unlikely still to be called a Designer-Draughtsman. In this way what may be termed job families can be discerned covering a range of jobs hierarchically organized. A knowledge of the main features of such job families (about a dozen clear-cut ones can so far be discerned) is of greatest assistance in carrying out an analysis of the time-span of discretion. Not only this, it may provide an extremely useful practical basis on which promotion policy may be developed, and on which more satisfactory discussion as to job potential can be held between a manager and a subordinate." (12)

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SOME IMPLICATIONS OF THE THEORY

It will be interesting to catalogue at this stage some implications of

the new approach in the context of our experience in India.

The need for a clearly structured work situation was mentioned in an earlier paragraph. The implication is that only in that case it is possible to pin point the discretionary content of a job and make effective the review mechanism in operation. In India the major handicap is the lack of a clearly structured work situation even in the management hierarchy in the vast majority of industrial concerns. A normal hierarchical chain hardly exists and, even if it does it is not easily discernible. The obvious consequence is confusion, duplication and ineffective diffusion of review technique and so the slipshod character of the management organization is reflected in the injudicious and infructuous use of discretion all along the line down to the lowest manual level. Thus wastage or lower industrial efficiency is a common disease in our industrial life. What is needed in the first place is to review and recast the organization chart of a firm in the light of a clearly defined review mechanism.

Another significant aspect of the new theory is that it pointedly brings out the mistakes of a large number of countries in giving weightage in pay and status to executive and administrative officers of the government as against the specialists in the field of research and education. The USSR

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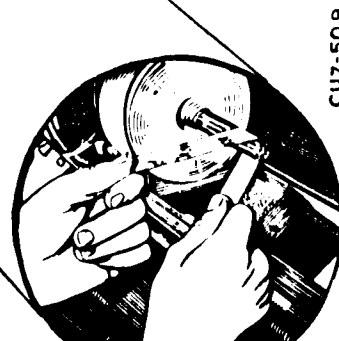
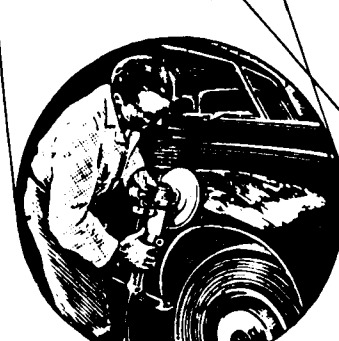
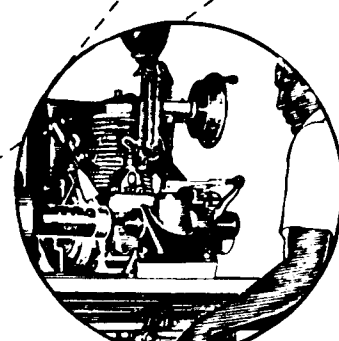
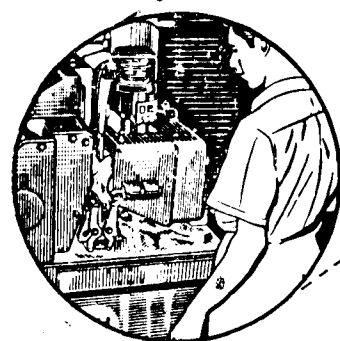
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seems to be a notable exception. Soviet scientists are highly paid, because, in the light of the new theory, their time-spans of discretion are very high. Professors and teachers in colleges and schools are generally well paid in that country and the result, as we find today, has been indeed spectacular.

The new theory can also throw some light on the reevaluation of posts in the government which carry special pay and allowances in addition to normal pay. The general feeling among the officials is that many of such jobs carry no extra responsibility to justify special pay. In terms of routine and prescribed level of work, it is true, that these jobs deserve no special consideration from other comparable jobs which carry no special pay. But evaluated in terms of the discretionary content of the work it is most probable that many of these special posts will indicate higher time-span of discretion deserving more pay and better status. However, it is worthwhile for the government to undertake a complete review of the special jobs both under the Central and the State Governments to ascertain the level of work of such jobs. But, this to be really effective, review of other comparable jobs is also necessary which means a thorough revision of the pay and status structure, a task, the government is always reluctant to undertake.

SOME LIMITATIONS

The theory of time-span of discretion is novel in many respects. It can eliminate the subjective elements from the job evaluation technique and also facilitate the comparison of one job with another.

At the same time, there are, at any rate, at the present stage of its development, some limitations of the theory. Firstly, the theory does not suggest what should be the minimum level of wage in an economy. It is quite possible, by the application of this theory, to ascertain the jobs in an economy, at any rate, in an industry or a series of industries, which carry the lowest time-span of discretion but the theory does not directly contribute towards the fixation of wage for these lowest categories of jobs. This is, however, not a serious handicap. The recommendations of the Fair Wages Committee report and the decisions of various Industrial Tribunals and Appellate Authorities in respect of "minimum wage," "floor wage" and "living wage" can be relied upon to fix the wage for the categories of jobs carrying lowest level of work.

Secondly, although it becomes easy to ascertain the distinction of one job from another in terms of the time-span of discretion, this distinction does not automatically determine the wage differential in money terms. We may refer to the table of wage differen-

tial mentioned by Jaques and cited earlier in this article. From this table it is easy to determine a uniform arithmetical ratio between the different maxima of time-spans: one hour, one day, one week, one month and so on. But it is not possible to find a similar correlationship in arithmetical terms between the expected earnings cited in the table. This should not, however, either baffle us or disappoint us. In an equation where variables are human beings either as individuals or in groups, it is absurd to seek mathematical precision. What the new theory does as a contribution towards the determination of wage differentials is to provide a new tool for measuring work in a satisfactory manner. The proverbial vagueness contained in such terms as "skilled", "semi-skilled" and "Un-skilled" work is done away with in the new approach. This is, indeed, a significant contribution to the science of industrial relations.

Besides, the new approach is still in a formative stage. Study of the myriad problems associated with pay and status at one industrial unit can never convey a complete pattern capable of fulfilling the requirements of a universal proposition. Many more trials are necessary before the theory attains maturity. Dr. Jaques and his associates in the Tavistock Institute of Human Relations have been busy with the study of the

problem and it is likely that the new approach will attain more refinement ere long. Hill concluded his study with an optimistic note: "In future papers it is hoped to present an analysis of line management jobs, to examine the relationship of time-span with salary, to describe the use of the time-span instrument for organizational design, and to examine the implications that the use of such an instrument has for personnel management and for work study in industry." (13)

The point, however, is whether we in India can go ahead with this technique and utilise it to the utmost in the interest of planned productivity.

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Principles of Utility Regulation

By R. P. AIYER

The Electric Supply Industry is one that has, along with a select few, need for heavy capital investment. This has made it necessary for development to be planned well ahead. Dams, generating plants and transmission lines are not built overnight. Long before they are scheduled to go into service, reasonably accurate forecasts must be mapped out to determine when they will be needed, where they should be located and most important of all the necessary finance is secured.

The record of the Electric Supply Industry in India has been one of capacity being sufficiently ahead of demand, although more recently pockets where power is short have tended to appear. This trend is a feature common to the rest of the world, and assuming that adequate priority continues to be given for power development (and sufficiency of foreign exchange is assured) there is no reason why the Industry should not outstrip its past record. This, of course, is subject to the reservation that the regulatory climate under which the Industry operates, adapts itself to the changing situations.

NEED FOR REGULATION

A public utility ordinarily has an assigned field of operation where undertakings offering similar service do not compete. The general view is that public utilities are monopolies, but this statement is subject to many qualifications, in that, for instance, an electric utility has to contend with other forms of illumination and motive power, and a transport undertaking has to compete with other modes of locomotion. It would therefore be more correct to say that public utilities are limited monopolies, which result from the desirability of avoiding duplicate power lines, telephone lines, railroad tracks and gas or water mains in the areas served. The limited shielding of public utilities from competition in the classical sense has led to the need for regulation so as to ensure reasonable rates to the public and a fair return to the undertaking.

Regulation of the Electric Supply Industry in India has been the scheme of electricity legislation since the law was codified in 1910, but a more conscious design to promote the ends of regulation came to be visible with the enactment of the Electricity (Supply) Act, 1948, by which Act the principle of regulation by legislation was laid down. The 1948 Act has since been modified in several respects by the Electricity (Supply) Amendment Act, 1956. The Act has thus established a 'yard stick'.

U.S. REGULATION PRACTICE

The financial principles embodied in the Electricity (Supply) Act, 1948, are, by and large, based on

United States rate regulation practice and a study of the ruling principles of utility regulation established by State and Federal Courts and Power Commissions in U. S. A. is therefore of great interest to the regulating authorities, public utility managements and the legal and Accounting professions in this country. The rate of return to be permitted to public utility undertakings is the central core of the problem of regulation. A reasonable rate of return is vital to the healthy functioning and continuation of public utility undertakings and so extensive re-examination of rate factors has in recent years been undertaken by Courts and regulation commission in the U.S.A.

U. S. regulation practice stems from the Fifth and Fourteenth amendments to the Constitution which between them provide that no person shall be deprived of life liberty or property without due process of law, nor shall private property be taken for public use without just compensation and none shall be denied the equal protection of laws. The basic principles adumbrated above first found fruition in a decision by the U. S. Supreme Court as early as 1898 in the landmark case *Smith V Ames* where it was laid down that under the pretence of regulation an undertaking cannot be forced to carry on operations without adequate reward.

The traditional procedure in the U. S. A. for fixing the return is to determine the 'Rate Base' (Capital Base in the Indian Law) representing the investment in the business, reckon the permitted operating expenditure and decide upon a percentage figure, applied to the rate base, so as to determine the return to be allowed—a process outlined in the Indian Statute. Many State Courts and Commissions have grappled with these fundamentals and the essence of what constitutes a fair return was propounded in the famous *Hope Case* (Federal Power Commission V. *Hope Natural Gas Co. 1944*) where it was laid down that the process of regulation should square up with the "end result" that a utility should be allowed to maintain its financial integrity, to attract capital and to compensate investors for the risks assumed. The language used in the decision was that the undertaking should be permitted to earn a reasonable return so as to "enable it to raise funds in the market necessary for the proper continuity of its public duties". Similar phraseology occurs in the Statement of Objects and Reasons appended to the Bill resulting in the Indian Electricity (Supply) Act, 1948, and so the Legislature in India did not contemplate an end-result dissimilar to what has been regarded as the central core of U. S. rate regulation practice. Nevertheless we have witnessed in India in recent years the time consuming pageant of Rating Committees of practically little value resulting in greater exercise of police functions and many a time arriving at conclusions based on intuition with little regard to the 'yard stick' prescribed by law.

The power to regulate is a positive process with accent on development, and therefore it is a well settled policy in U. S. that the prohibition of taking away property without due compensation extends to the earning power as well. Otherwise low rates might result out of regulation. Right to earnings is as much a property as the right to the property which can produce the earnings.

RISK FACTORS

What may be asked is a risk in a public utility? Those who invest money in the Electric Supply Industry take a good deal of chances as persons engaged in other business. Like other industries it must satisfy the consumers, run the gauntlet of good and bad times, strikes within itself and in industries it supplies and revolutions in technological development. Minor changes in the field of technology attach a risk to various parts of the undertaking's installation. A possible risk is that the regulatory

process might make a mistake which until rectified might well result in greatly reduced earnings. A special character is that the business unlike others cannot be abandoned at will. These characteristics have led to the recognition that the strong arm of law cannot be used to reduce charges resulting in loss. Therefore the principle has come to be accepted that just as the law is powerless to prevent injury (in cases where economics of operation impose difficulties) so likewise it should not be instrumental to cause injury.

Unlike the Indian law which provides a yard stick to cover all units of the Electric Supply Industry, rate making in U. S. is not a Procrustean bed upon which the undertaking must be stretched or trimmed to suit any given dimension. Therefore on the basis of a pattern established by case laws individual cases are adjusted giving regard to elasticity. This has led to returns—ranging from 5.75% to as high as 8½% being permitted*, the guiding principles being to ensure safety of investment and incentive for further investment in a rapidly growing industry.

Common dividends in 1955, according to published statistics, have ranged between 8 to 20.3 per cent.

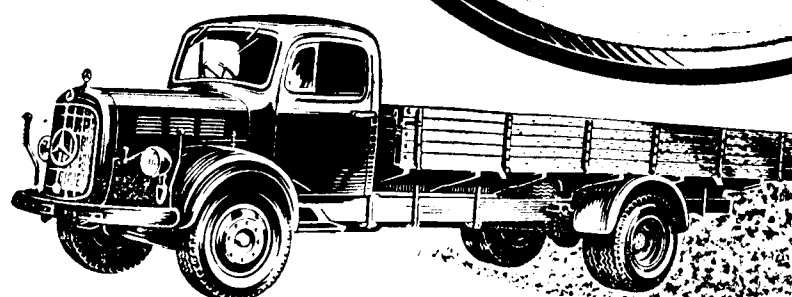
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FLOW OF CAPITAL

A utility may have characteristics of a limited monopoly, but capital is subject to the law of competition, flowing to the highest bidders; other considerations being equal. It is also a truism that one cannot commandeer capital for public utility purposes; to attract the yield must be sufficient incentive.

That money cannot be attracted unless there is hope of adequate return was recognised by the Headley Railroad Securities Commission appointed by the New Deal Administration of President Roosevelt, when it is stated:—

"We cannot secure the immense amount of capital needed unless we make profits and risks commensurate. If rates are going to be reduced whenever dividends exceed current rates of interest, investors will seek other fields...."

In this context, the ruling of one U. S. Commission is marked by refreshing candour.

"And while the Commission wishes to assure the great army of patrons of public utilities in this State that it will be vigilant in securing for them adequate service at reasonable rates, it is equally desirous of making it plain that capital invested in construction development and extension, and especially in planting them in sections not now served, will receive consideration sufficiently favourable."

INDUSTRIAL DEVELOPMENT IN ANDHRA PRADESH

In the Second Five-Year Plan of Andhra Pradesh a provision of Rs. 273.72 lakhs for major and medium industries and Rs. 1,152.23 lakhs for village and small-scale industries was made. Notable progress is recorded towards realisation of targets in both these fields.

Production of coal at the Singareni Collieries, which was 15 lakh tons in 1955, has risen to over 21 lakh tons. The present expansion programme under the Second Plan envisages raising the production to 30 lakh tons by March 1961.

The Andhra Paper Mills, Rajahmundry, is to be expanded at an estimated cost of Rs. 242 lakhs with a view to increasing the present production capacity to 50-60 tons of paper per day. An expenditure of Rs. 190 lakhs has been programmed for the Second Plan period and the balance of Rs. 52 lakhs during the First Year of the Third Plan period. Necessary steps are being taken to secure the plant and machinery required.

Expansion of the Government Ceramic Factory, Gudur, is also under way, with a view to increasing its production capacity. The tunnel kiln, which comprises the most important item, has been imported.

The State Government has acquired the Sri Venkateswara Paper and Straw Board Mills, Tirupathi at a cost of Rs. 2.72 lakhs and it is proposed to run it as a State Commercial concern with a production capacity of 8 to 10 tons of straw board per day.

In order to give an impetus to small scale industries, the State Government, with the financial assistance of the Government of India, are establishing industrial estates and Departmental training and production units, and are also granting loans to private small scale industries. An Industrial Estate has been inaugurated at Hyderabad and other similar estates are being established also at Samalkot, Visakhapatnam, Vijayawada, Warangal and Nandyal. Various types of assistance is being extended to handicrafts, Khadi and village industries also.

An Institute of Industrial Safety and productivity is being established at Hyderabad with a view to exhibiting various types of machines with guards and their working in safety lines and on sound principles in order to minimise accidents.

The principle of self-inspection in industries has been put into practice for the first time in the State and perhaps in India—within the Rice Milling Industry to start with. This is done through a safety competition in Rice Mills, in which about 90 per cent of the Mills in East and West Godavari districts have participated. The scheme will be extended to other districts in stages.

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ANDHRA PRADESH.

ble to make it an object to come here. When we lose sight of this duty, we become an instrument to kill enterprise, not to regulate it.

It is the law of economics that capital will not flow to an undertaking which faces the difficulty of paying a fair return to the investor. As the saying goes, one cannot "make bricks without straw", so either the community served furnish the needed return or the supply is likely to be curtailed. The awesome truth must also be faced that for necessary capital one must compete with a world in need

LEAVENING OF GROWTH

If a great and indispensable public utility is denied earnings to ensure a reasonable return, it is hardly to be expected that it will grow. Therefore it is only proper that there must be a definite acceptance of the principle that the true welfare of the public is best served by the maintenance of a rate large enough to earn a return which will attract capital, which will readily permit of expansion and extension of the utility service and keep it in a high state of efficiency; which will attract the best type of sound, economical, aggressive managerial ability and in other ways stimulate productive activity. As one U. S. Commission has rightly stated:

"Capital is not attracted to an enterprise which must constantly travel near the financial deadline which divided prosperity from bankruptcy."

In other words a utility should grow with the growth of the community it serves—or even leaven the growth of the community. Therefore, the interests of the two cannot be separated and in the strict sense do not clash.

No industry can function effectively, let alone expand, unless adequate incentives are offered. In the case of the Electric Power Supply Industry the first principles are no longer in question as the Electricity (Supply) Act, 1948, has determined the broad regulatory policies involving fixation of a Reasonable Return taking into account all operating expenditure including taxation of all kinds. There can therefore be no question of the investor in the Electric Supply Industry walking away with an unconscionable return. If anything, the level of the Reasonable Return permitted to the investor under the law is not fully adequate as to promote further investment and consequently the situation would call for a better regulatory outlook. Otherwise the Industry would face danger of erosion of capital.

The problem is also vitiated by the regulatory law; instead of emphasising the fairness of the price

charged by the utilities—the price for electrical energy has but increased about 40% whereas the general price level has risen by more than 400%—it places greater accent on limiting the return to the investor. This is evidenced by the fact that equity values in the Electric Supply Industry have continuously decreased although the return expressed in terms of percentage has slightly increased.

IMPACT OF TECHNOLOGY

The situation would have deteriorated even more sharply but for process in technology tending to act as a buffer. Amidst the growing tendency for costs to rise, one redeeming factor has been the improvement in technology; to mention one aspect, steady gain in thermal efficiency of power plants. This has been brought out in force by the U. S. Edison Electric Institute by a comparison of cost factors and thermal efficiencies as applied to U. S. Power development during the years 1948/1956. To quote the relevant figures—

	Average cost of fuel for net Kwh. Cents.	Average B.T.U. per net Kwh.	Cost per million B.T.U. consumed. Cents.
1948.	0.42	15,378	26.7
1949.	0.38	15,033	25.2
1950.	0.35	14,030	24.8
1951.	0.34	13,641	24.9
1952.	0.33	13,366	25.0
1953.	0.33	12,889	25.2
1954.	0.30	12,180	24.4
1955.	0.28	11,699	24.3
1956.	0.29	11,450	25.4

The picture presented here by increased thermal efficiency is heartening, but nevertheless the net effect, because of galloping cost rises, is that the rate of gain incidental to technological development has declined in more recent years. The possibilities of greater economy pursuant to installation of power plant harnessing higher steam pressures and temperatures are of course still great, but one must reckon with the situation that there are limitations in this direction and the continuing increases in costs can soon exceed economies inherent in superior plant performances.

Another source for economy is the steadily improving operational

costs (other than fuel) incidental to large size generating units being installed, resulting in a smaller number of plant employees per kilowatt of plant capacity. The trend in U. S. and in Europe at present is the installation of generating units in the range of 200,000 kW/300,000 kW with plants for capacities of single units going up to 500,000 kW. These ambitious figures may not yet be appropriate to Indian conditions at present, but the shape of things to come is unmistakable. Even this resource has proved to be inadequate to offset increase in costs, and this is illustrated by the following table covering steam plant installations in U. S. during the year 1953/58:

Year completed.	Average unit size.	Size effect.	Estimated relative cost per kW.	Inflationary effect index.
1953	88,000 kW	100		100
1954	94,000 kW	98		100
1955	104,000 kW	96		109
1956	123,000 kW	93		110
1957	124,000 kW	93		125
1958	160,000 kW	90		138

These are clear indications that there are limits to technological improvements 'riding' out by themselves further inflation, and consequently regulatory measures to improve the situation are unavoidable.

These cost trends have led to U. S. rate regulation thinking at

judicial level* recognising that one cannot regulate economics by out-of-date standards. One State Su-

*Where rate regulation is achieved by Regulation Commission, which review cases for rate revisions on ad hoc basis in contrast to Indian practice of regulation by legislation.

preme Court held in a reference in 1957 that—

"The fixing of just and reasonable rates must function in a world of change, and must constantly re-adapt itself to the effect of those changes. It would, of course, be so much easier to think of dollars as something constant and unchangeable, but that unfortunately is not true and has not been true in the last 60 years, if ever it was. The Company must have an adequate total allowance in terms of the present buying power of money because that is the only kind of money in use today".

The Court observed that "the argument against fair value are all ones of expediency, not ones of justice or fundamental fair treatment". The Court accordingly directed to make a determination of fair value by prescribing a 70 per cent weight to reproduction cost, and 30 per cent to original cost. It also noted in the specific case that in future depreciation for rate making purposes must be calculated as stipulated on the same fair value basis and not on cost.

While what comes from U. S., the land of "free enterprise", may be suspect, it is from U. K. that a major contribution to sound financial policy has come. The Herbert Committee, which went into the working of the nationalised Electric Supply Industry in U. K. in 1954, pertinently observed that while prices in competitive enterprises were set by the force at work in a free economy, the method of setting aside depreciation was largely a managerial policy and that "the depreciation calculation is not in such cases a direct determination of prices". However, in a quasi-monopoly like electric supply the Committee averred that the cost representing depreciation 'should reflect current price levels rather than those ruling at the time when the plant was originally installed.'

Regulatory thinking aside, the one factor which the Electric Supply Industry has still to contend with is consumer opposition—a legacy arising out of over-emphasis on 'cheap' power. While the interest of the consumer lies in obtaining electricity at as cheap a rate as possible, the true interests of both the supply system and the consumer lie in a stable Electric Supply Industry, and all measures engendering such stability will ultimately redound to the benefit of the consumer.

VIABILITY OF PUBLIC ENTERPRISE

Although the Licensees' undertakings constitute a sizeable portion of power supply facilities in the country, the completion of the various Multi-purpose River Valley Projects has tended to shift the balance in favour of State Electricity Boards in the field of generation. It will therefore be appropriate to discuss here briefly

the pricing policy for power supply to be adopted by the Electricity Boards. The Electricity (Supply) Act, 1948, has by Section 59 stipulated that an Electricity Board functioning under the Act shall not, as far as possible, conduct its operations at a loss. This negative approach has since been supplanted by a more positive outlook in favour of using such organs of public enterprise for increasing the State's fiscal resources. For instance, the Planning Seminar has said that the pricing policy vis-a-vis public enterprise should not be influenced by the principle of 'no profit no loss' but that public undertakings should 'become the main instrument for providing the State with the resources it requires for development'.

The Krishna Menon Committee has also come out with the recommendation that 'Government concerns should enjoy no special privileges' and that they should 'function economically and profitably in

fair competition'.

All these pronouncements have tended to confirm that power cost irrespective of the system which makes available the supply should equate the economic cost and it can only be hoped that this conception would be fully implemented so that a measure of realism would be introduced in the operations of the State Electricity Boards.

Ultimately in an underdeveloped economy it is availability of power, more than the cost at which power is available, that is important and consequently no efforts, legislative or otherwise, should be spared to set the regulatory climate under which the Industry functions on an even plane.

More than ten years have gone by after the enactment of the Electricity (Supply) Act, in 1948, and Father Time has vouchsafed both gains and losses, and evaluated in terms of development and service the Industry has stood the test reasonably well.

In the ultimate analysis the choice is between subsidized power and power cost based on the tax payer not being burdened with utility subsidies. The issue was placed in the proper context by the President of the World Bank in addressing the U. N. Economic and Social Council on 10th April 1959 in Mexico City when he stated—

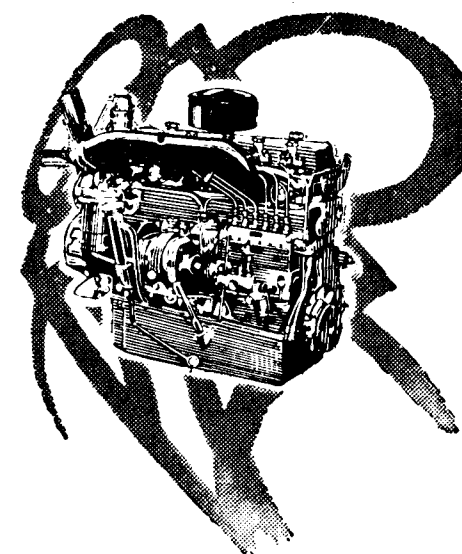
"What in many minds has confused this harsh but inescapable choice of course is the notion that somehow subsidized utilities—particularly artificially cheap power—are necessary to attract industry and commerce. But for almost all industries now being contemplated in the underdeveloped world it is how much is available rather than how much is charged which attracts industry".

This weighty pronouncement needs full consideration in the interest of long term power development.

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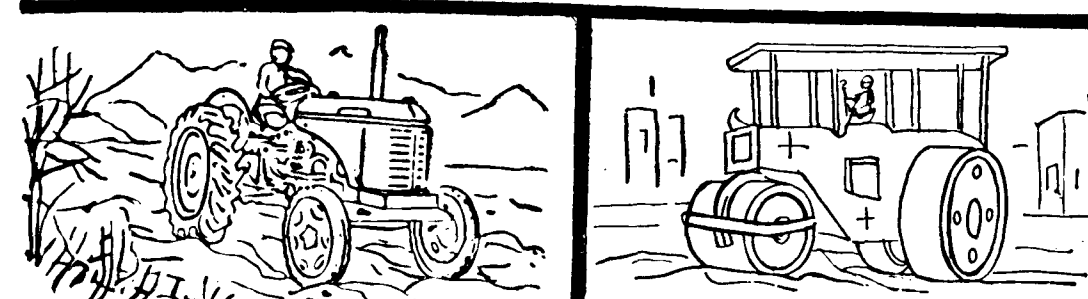


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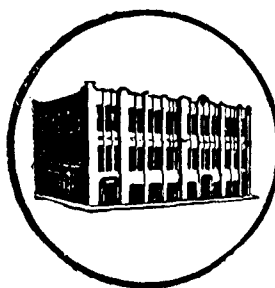
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Reserve Bank and Rural Credit

By A. V. RANGACHARI

Ever since the establishment of the Reserve Bank of India, its precise role in rural finance has been a subject of controversy involving fundamental issues. What is the extent to which the Reserve Bank as the Central bank of the country should provide rural finance? What are the different types of finance it should provide? The Reserve Bank as the central bank of the country has been charged with a special statutory responsibility as to the extension and organisation of agricultural credit. But, under this responsibility, the functions of the Bank are more to create monetary conditions under which commercial banks, co-operative institutions and private agencies would operate on sound and economic lines rather than supply credit itself. The Bank is expected only to be lender at the last resort, both with regard to commercial and agricultural finance.

Here, an endeavour is made to examine the part played by the Reserve Bank of India in the sphere of rural finance. For such a study, however, it is necessary to refer briefly to the statutory functions and powers of the Reserve Bank of India in regard to agricultural credit. While the statutory functions have remained the same, however, with varying circumstances, the functions of the Reserve Bank, though conforming to the spirit of Section 54 of the Reserve Bank of India Act, gradually expanded to what they are to-day.

STATUTORY FUNCTIONS

By the Constitutional provisions of the Reserve Bank of India Act, the Bank was required to create a special Agricultural Credit Department; Clause 54 of the Reserve Bank of India Act required the Bank to create such a department. "(a) to maintain an expert staff to study all questions of agricultural credit and be available for consultation by the Governments—(b) to co-ordinate the operations of the Bank in connection with agricultural credit and its relation with the State Co-operative Banks and any other Banks or organisations engaged in the business of agricultural credit."

FINANCIAL PROVISIONS

Under Section 17(2) (b) and (4) (a), (c) and (d) of the Reserve Bank of India Act, the Bank was also permitted not only to purchase or rediscount bills or promissory notes of nine months' duration, but to make advances against such bills or promissory notes for a period not exceeding ninety days. The Bank was also permitted to make advances to State Co-operative Banks against Government paper and other trustee securities for

periods not exceeding 90 days or again promissory notes supported by documents of title to goods. Thus, the Reserve Bank was not empowered under the Act to finance the agriculturists direct, but it could provide the necessary finance through the co-operative movement through State Co-operative Banks, which, to be eligible, were expected to be run on approved banking lines. Moreover, the financial accommodation available to the Co-operative Movement was restricted to short-term credit as the Bank was not authorised to make medium-term and long-term loans.

But while the Statute has thus provided for help being given to the Co-operative Bank in a number of ways, in practice little assistance was given by the Reserve Bank. In its Statutory Report on Agricultural Credit and in its circular letters, it has laid down the conditions and terms on which it was prepared to give credit and rediscounting facilities that have been authorised by the Act which amount to a virtual denial of these facilities. It has also been laid down that State Co-operative Banks requiring accommodation should maintain cash balances with the Reserve Bank. Hence, it is said that the Bank has been pursuing a very stringent policy with regard to the co-operative movement. The following observation of the Report on Rural Marketing and Finance is worth mentioning. After commenting on the policies and practices of the Reserve Bank in the context of accommodation to co-operative banks, the Committee goes on to add: "All this throws significant light on the attitude which the Reserve Bank has adopted with regard to the whole question of placing the agricultural credit system on a more rational basis. It has laid down the conditions that the co-operative banks will have to fulfil before they can be eligible for obtaining financial accommodation. In short, it has been asking for a complete rehabilitation of the co-operative movement as conditions for any such accommodation. It is inclined to overlook the vital question that it can itself lend a helping hand in bringing about rehabilitation which it demands. The Reserve Bank as the ultimate custodian of the country's credit policy, has not only the right to lay down the lines along which the movement could be reorganised, it has also the responsibility to do all that within its power to bring about the necessary reorganisation. To wait till the movement has reorganised itself through its own efforts, would be to wait too long."

In 1942, the Bank offered to grant financial accommodation

under Section 17(2) (b) and 17(4) (c) against bills and promotes for marketing of crops at a concessional rate of 1 per cent below the Bank Rate of 3 per cent provided the benefit was passed on to the agriculturists, but no co-operative Bank, save one, took advantage of the measure. To induce the banks to borrow from the Reserve Bank against agricultural bills, the Bank in 1944 decided to extend its scheme of rebate to cover bills and promissory notes drawn for the purpose of financing agricultural operations also. But the terms and conditions under which the rebate could be had remained substantially the same as in the Circular of May 1938. Very few State Co-operative Banks availed themselves of the benefit of the facilities as was revealed by the fact that the total amounts borrowed from the Bank was only Rs 99.9 lakhs in 1941-42, Rs 295.25 lakhs in 1942-43, and Rs 379.15 lakhs in 1943-44. The Section 17(4) (d) of the Act permitting the Bank to grant advances against promissory notes supported by documents of title to goods remained practically inoperative owing to the absence of licensed warehouses.

The role of the Reserve Bank in the sphere of rural credit has grown significant, particularly in the years following the nationalisation of the Bank. From a relatively passive role, it has come to play an increasingly important part in the matter of providing financial accommodation to co-operative banks. As a result, the demand for funds made on the Reserve Bank by the State co-operative banks has increased considerably. From Rs 0.91 crores and Rs 0.68 crores in 1947-48, the amounts of loans applied and sanctioned have increased to Rs 4.82 crores and Rs 2.14 crores in 1949-50 and still further to Rs 10.46 crores and Rs 7.62 crores respectively in 1950-51. The advances have been at a concessional rate of 1½% below the Bank Rate wherever they were utilised for financing seasonal agricultural operations and marketing of crops. Even though the total outstanding advances has increased at a rapid pace, as seen above, only very few States such as Bombay, Madras, Madhya Pradesh and Orissa, where there are developed sound co-operative societies, were in a position to get the financial accommodation while other societies were unable

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get this facility as the following table will show:

Advances granted to Provincial Co-operative Banks. (Rs in lakhs)					
States	'46-47	'47-48	'48-49	'49-50	'50-51
Madras		15.0	91.8	156.0	224.0
Bombay	.. 1.0	..	6.5	66.5	216.0
UP	.. 0.5	1.8	4.4	0.7	2.7
MP		..	..	34.6	53.1
Orissa		..	..	13.4	26.7
West Bengal		..	..	..	15.0
Total	.. 1.5	16.8	102.7	270.7	537.8

From the table, it can be seen that the facilities offered by the Bank have been availed of mostly by the two States, Madras and Bombay, where the movement is so developed that, on the strength of the applicant institution, the Reserve Bank has given financial accommodation. The lack of development of the movement is thus responsible for the concentration of the Reserve Bank's facilities in the two States.

The increase in the Reserve Bank's accommodation to the State co-operative Banks has also been due to the amendment which has been made to the Reserve Bank Act, with a view to liberalising the Bank's loan policy to the State co-operative Banks. The amendments are as follows:

1. Section 17(2) (a) of the Reserve Bank Act, which relates to the discounting of bills arising out of bonafide commercial or trade transactions which has not been applicable to State Co-operative Banks before, has been extended to co-operative banks also.

2. The period of accommodation from the Reserve Bank specified in Section 17(2) (b) has been extended from 9 months to 15 months.

The condition placed by the Bank that all loans should be repaid by a fixed date irrespective of the maturity of bills has also been removed.

These modifications in procedure have not only increased the borrowings by co-operative banks but have also enabled them to frame their borrowing and lending programmes in conformity with local needs and conditions.

In addition to these facilities enjoyed by the State Co-operative Banks, which have joined the Reserve Bank's scheme of "Extension of Remittance Facilities to Provincial Co-operative Banks," the rate on remittances has been reduced from 1 1/16 per cent and 1 1/36 per cent on remittance up to Rs 5,000 and over Rs 5,000 to 1 1/32 per cent and 1 1/64 per cent respectively. Thus, the improvements, together with the remittance and other facilities available to co-operative banks, have resulted in a considerable increase in the extent of loans granted by the Reserve Bank to the co-operative movement.

Another far reaching step has been the extension of the provisions of the Reserve Bank of India Act to the former Indian States which have now been reorganised

into more homogeneous State unions and which had been denied the facilities for accommodation available under the Act. To bring about a uniform development of the movement in these new State Unions, the Reserve Bank advocated as a first step the formation of apex co-operative banks in them. The need for reorganisation was most necessary to enable them to take advantage of the Reserve Bank's accommodation, which could be made available only through a State Co-operative Bank or, in its absence, any central society declared to be a State co-operative Bank by the State Government for the purpose.

Since the inauguration of planning, the role of the Reserve Bank in agricultural finance assumed social significance in view of the State policy of expanding the sphere of co-operation. The importance given to increased food production in the country and the significant place accorded to agricultural development in the First Five Year Plan have necessitated the increased role of the Reserve Bank in agricultural credit.

In this connection, an Informal Conference was convened in 1951 to discuss the role of the Reserve Bank of India in the sphere of rural finance. Following the conference, the Bank took a series of measures. They were intended, in the first instance, to improve the effectiveness of the role within the existing framework of agricultural credit; secondly, to enlarge the existing machinery of rural credit to the extent immediately practicable; and, thirdly, to design a new framework in the light of the facts to be ascertained. These measures consisted partly of amendments to the Reserve Bank of India Act and partly to procedural reforms (taken by the Reserve Bank in 1951 and 1953) to suit the practical needs of the borrowing co-operative financing agencies.

During the year 1952-53, the revised procedure regarding financial accommodation to State Co-operative Banks worked satisfactorily and was generally acceptable to co-operative banks as it allowed a large measure of freedom to State co-operative banks in the operation of credit. The total credit limits granted to State Co-operative Banks in 1952-53 amounted to Rs 13.12 crores as against Rs 12.80 crores in 1951-52. The amount drawn from the Reserve Bank, however, was slightly lower than in 1951-52 at Rs 12.12

crores as compared with Rs 12.51 crores in the previous year. The shortfall was due mainly to smaller drawings by State co-operative Banks in Bombay and West Bengal, partly offset by larger drawings in Madras, UP, MP, Orissa and Ajmer.

It is in pursuance of the third objective, the formulation of long-term plan for the provisions of rural credit and the collection of the necessary data as a preliminary therefor, that the All-India Rural Credit Survey was undertaken. The publication of the "General Report" in December 1954 was a significant event for the rural economy in general and in the field of rural credit in particular. The Report envisaged a complete reorganisation of the co-operative structure on certain lines and postulated the principle of state partnership at all levels of the co-operative structure as a pre-requisite for the adequate success of the co-operative organisation. As a part of the integrated scheme of rural credit proposed by it, the Committee recommended that the Reserve Bank should undertake certain specific responsibilities calculated to enable it to play its appropriate role in the reorganisation of the co-operative structure and in enlarging and facilitating the supply of rural credit.

The recommendations of the Committee were accepted and, as a result of their implementation, there was considerable rise in cre-

dit limits sanctioned to 10 State Co-operative Banks for financing seasonal agricultural operations and marketing of crops at the concessional rate of 1 1/2%, limits totalling Rs 21.21 crores in 1954-55 as compared to Rs 16.23 crores in 1953-54. The increased accommodation availed of by the State Co-operative Banks resulted mainly from the further progress made in the reorganisation of the co-operative movement in various States and also from the readiness of the State Governments to stand guarantee for the loans granted to State Co-operative Banks. In the next year, there was further increase in the scale of assistance. Nineteen State Co-operative Banks were sanctioned limits aggregating Rs 29.64 crores.

During 1956-57, there has been a further increase in advances. The number of State co-operative Banks has been reduced as a result of the reorganisation of States, and seventeen State Co-operative Banks were sanctioned credit limits aggregating Rs 35.25 crores as compared with Rs. 29.64 crores sanctioned to 19 banks during the previous year. In 1958-59, it has increased to about Rs. 50 crores. In the sphere of short-term credit for seasonal agricultural operations and marketing of crops itself, limits sanctioned to 17 State Co-operative Banks amounted to Rs 70.85 crores during 1958-59 as compared to Rs 50.30 crores sanctioned to 18 banks in 1957-58.

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The gross amount drawn by them also recorded a rise from Rs 50.23 crores in 1957-58 to Rs 67.56 in 1958-59. The following table will show the position:

Short-term Loans to State Co-operative Banks.		
(Rs. in Lakhs)		
Year	Amount drawn	Outstandings
1950-51	537.30	339.20
1951-52	1128.68	781.38
1952-53	976.05	637.20
1953-54	1384.45	801.43
1954-55	1729.34	913.95
1955-56	2299.78	1233.48
1956-57	3190.61	2058.47
1957-58	5022.51	3092.59
1958-59	6755.55	4256.32

MEDIUM-TERM CREDIT

It is medium credit which ultimately looms large in the financial demands of the agriculturists. The agriculturists require, in addition to short-term credit, medium-term credit for periods ranging up to five years for the purchase of animals and implements and for effecting improvements, and, if co-operative societies refuse to give such credit, a gap will arise in the co-operative credit system. Even with regard to short-term credit for current cultivation purposes, the farmer cannot afford to base himself on the proceeds of only a year's turnover, as the yield from land is extremely uncertain. Hence, recent economic thought on agricultural credit has, favoured the substitution of medium-term loans for even shorter periods.

In India, medium-term credit is provided by primary co-operative credit and multi-purpose societies, which are being financed by Central and State Co-operative Banks. Increased participation of the Reserve Bank in rural credit implies that the Bank must disburse medium-term credit in addition to providing short-term finance. In this connection, the informal conference has made a valuable suggestion that the Reserve Bank should, through its Agricultural Credit Department, provide intermediate credit for periods between 18 months and five years to co-operative banks. Accordingly, a new Section 17(4) (A) has been added, enabling the Reserve Bank to grant medium-term loans to State co-operative banks for agricultural purposes, for periods not less than 15 months and not exceeding 5 years provided that such loans are guaranteed by the State Government. To minimise the risk, it has been laid down that such credit should be limited to the extent of owned funds of such banks and the amount does not at any time exceed Rs 5 crores in the aggregate.

To give effect to this amendment, the Bank has started granting fixed loans for periods of 3 years under Section 17(4) (A) of the Act, though application for longer periods, that is up to five years, could be considered in cases

of necessity; the rate of interest has been fixed at 2% below the Bank Rate; the guarantee of the respective State Governments and promissory notes excluding by the borrowing Central Banks were to be security for the advances. Medium-term loans of Rs 1.22 crores were sanctioned to four State Co-operative Banks in 1954-55. In the next year, the restriction that medium-term loans could be provided up to an aggregate maximum of Rs 5 crores was removed by a further amendment in 1955. This amendment provided for the grant of medium-term loans out of the National Agricultural Credit (Long-term Operations) Fund. As a result ten State co-operative Banks were sanctioned medium-term loans amounting to Rs 1.40 crores during 1955-56. During 1956-57, the amount further increased, as six State Co-operative Banks were sanctioned loans amounting to Rs 1.67 crores as against Rs 1.40 crores in 1955-56. The number of Co-operative Banks to which financial accommodation was granted declined from 14 in 1957-58 to 11 in 1958-59; the limits sanctioned rose from Rs 5.42 crores to Rs 5.88 crores. The gross amount drawn, however, showed a decline from Rs 2.99 crores to Rs 2.68 crores. The amount outstanding at the end of March 1959 was Rs 4.95 crores as compared to Rs 3.61 crores at the end of the previous years. Thus, the Reserve Bank set

in motion the actual provision of medium-term credit for agricultural development, but it is too early to say anything about the great potentialities of this new form of agricultural credit initiated by the Reserve Bank. It is expected that the provision of medium-term loans for agricultural purposes by the Reserve Bank would make co-operative banks expand their activities in this direction.

LONG-TERM FINANCE

Since the inception of the Reserve Bank of India, a Section of public opinion strongly urged that the Bank should make finance available for long-term purposes through co-operative land mortgage banks, but the banks have so far desisted from making any commitments in this field. As a matter of fact, the Reserve Bank as the central credit institution has been expected to take an active part in the promotion of land mortgage banking in the country by a) contributing to the capital of such banks; b) assisting in raising purchasing and otherwise promoting the marketability of debentures of land mortgage banks c) providing short-term accommodation to these banks if and when required; and d) offering technical and economic advice. It is only recently that the Reserve Bank came forward to accept debentures of land mortgage banks as trustee securities for loans and advances under Section 17(4)

(a). In 1948, a beginning was made with a token subscription of the issue of the Madras Land Mortgage Bank debentures. Since then, the share has increased to 20% of the issue of the Central Land Mortgage Banks. The scheme has been taken a step further in 1953. The Central Government have set apart Rs 1 crore for long term agricultural credit under the Five year plan for the purchase of debentures issued by land mortgage Banks. In this connection, the Reserve Bank, in consultation with the Government of India, has agreed upon a scheme of joint contribution to the land mortgage banks up to 40%. In 1953-54, the Andhra Land Mortgage Bank was alone accommodated under the scheme to the extent of Rs 7 lakhs. During 1954-55, the offer to purchase debentures under this scheme was made to four Land Mortgage Banks, those in Andhra, Madras, Mysore and Travancore Cochin, but the Reserve Bank was not called upon to make any contribution as the series of debentures were over-subscribed. Details of subscription to debentures of Land Mortgage Banks during the last few years are given below:

Year	(In lakhs of Rs.) Amount of Subscriptions
1949-50	4.15
1950-51	20.00
1951-52	13.44
1952-53	16.89
1953-54	15.16

The scheme of joint contribution by the Reserve Bank of India and Government came to an end by 1955-56 as no provision was made by the Government. Under the Second Five Year Plan, however, the contribution of the Reserve Bank of India up to 20% or the unsubscribed portion of the debentures, whichever is less, continued to be available. Recently, the Reserve Bank of India has drawn up a scheme of floatation by Central Land Mortgage Banks of rural debentures as also to the Bank's special offer to subscribe to such issues. In the case of Andhra Central Co-operative Land Mortgage Banks, issue for Rs 20 lakhs on January, 2 1958 made under the scheme no contribution was made by the Reserve Bank of India as the Andhra Bank was not able to collect sufficient Seven year mortgages. During 1958-59, two land mortgage banks the Saurashtra Central Co-operative Land Mortgage Bank and the Orissa Central Co-operative Land Mortgage bank issued successfully their series of rural debentures for Rs 50 lakhs and Rs 5 lakhs respectively. The amount subscribed by the public was Rs 25.89 lakhs in the case of the former and Rs 2.23 lakhs in the case of the latter; the balance of the amount in each case was contributed by the Reserve Bank. Five central land mortgage banks successfully floated ordinary debentures (as

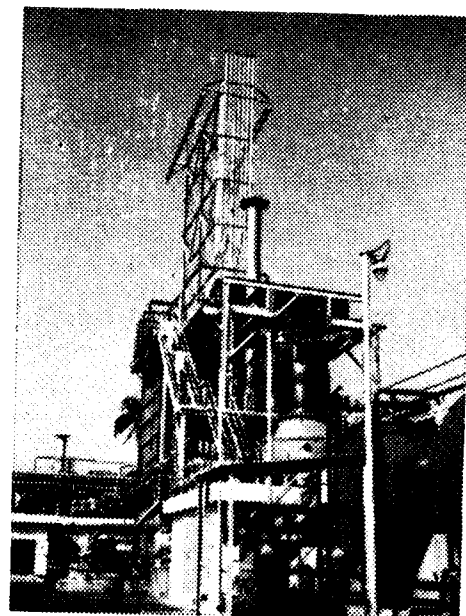
distinct from debentures) for the total sum of Rs 348 lakhs as against Rs 180 lakhs issued by the three banks in 1957-58. The Reserve Bank contribution to the issues amounted to 1% in 1958-59 as compared to 7% in the previous year.

The scheme of rural debentures was modified in the light of the recommendations made at the meeting of the Central Land Mortgage Banks and Registrars of Co-operative Societies specially convened for this purpose by the Reserve Bank of India on August, 2, 1958. Under the modified scheme, the proposals by the Central Co-operative Land Mortgage Banks of Andhra and Madras for an issue Rs 20 lakhs each and by Saurashtra Central Land Mortgage Bank for a second series for Rs 30 lakhs have been approved.

In practice, the existence of legislative restrictions on the transferability of rights in lands in many States, the fact that the policies of land reforms have not yet been completed in some States, the precarious agricultural economy in the unirrigated areas, etc., have hampered the promotion and development of land mortgage banks. It may, however, be hoped that, with the crystallisation of land reforms, extension of irrigation facilities and reorganisation of co-operative structure of various States as recommended by the Rural Credit Survey Committee, the development

of land mortgage banking will be accelerated which in turn will necessitate the Reserve Bank to offer more financial accommodation in the future.

One of the recommendations of the Report of the Rural Credit Survey Committee for the orderly financing of the reorganisation proposed was the creation of five national funds, three in connection with agricultural credit and two for the development of co-operation and warehousing. Two of the funds, namely the National Agricultural Credit (Long-term operations) Fund and the National Agricultural Credit (Stabilisation) Fund have been set up by the Reserve Bank of India in terms of the provisions embodied in the Reserve Bank of India Amendment Act 1955. The National Agricultural Credit (Long-term Operations) Fund was set up with an initial contribution of Rs 10 crores. This was augmented by the annual contribution of Rs 5 crores in June 1956. The Fund is for the purpose of making long and medium term loans to State Governments to enable them to contribute to the share capital of co-operative societies, State Co-operative Banks and Land Mortgage Banks. Further annual contributions have been made by the Reserve Bank of India and, during 1958-59, the amount to the credit of the fund was Rs 25 crores. During the year ended



A close up view of the Converter of the Polythene plant at Rishra

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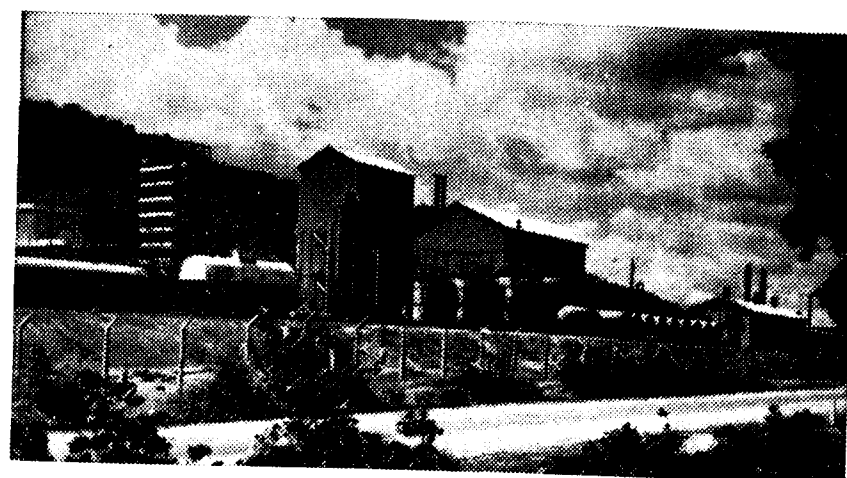
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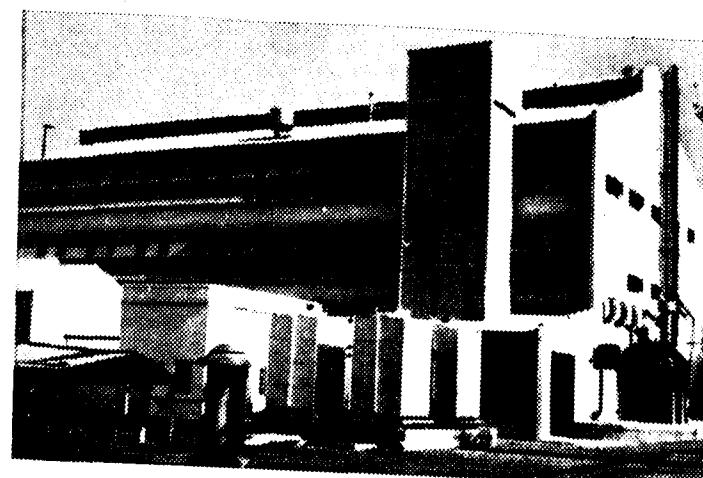
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March 1959, loans to the extent of Rs 6.15 crores were sanctioned by the Reserve Bank to 13 States for contribution to the share capital of co-operative credit institutions, as compared to Rs 6.07 crores to 14 States in 1957-58. Of the total amount sanctioned, Rs 2.64 crores were accounted by the large-sized credit societies, Rs 2.06 crores by Central co-operative Banks, Rs 77 lakhs by the State Co-operative Banks and Rs 57 lakhs by the Central Land Mortgage Banks. However, the amount actually drawn by the State Governments during 1958-59 for these purposes was Rs 5.74 crores as against Rs 5.83 crores in the previous year.

During 1956-57, the Reserve Bank also set up the National Agricultural Credit (Stabilisation) Fund and made a contribution of Rs 1.00 crore to it as required under section 46 B of the Reserve Bank of India Act. During 1957-58, the Bank contributed Rs 1.00 crore, raising the amount to the credit of the Fund to Rs 3.00 crores as on June 30, 1958.

The Agricultural Produce (Development and Warehousing) Corporations Act, 1956 was enacted in June 1956 and the National Co-operative Development and Warehousing Board was set up in September, 1956. The functions of the Board constituted under the

Act are to plan and promote, among other things, programmes for marketing, storage and warehousing of agricultural produce through a co-operative society or Warehousing Corporation. The Central Government are to provide to the Board a non-recurring grant of Rs 5 crores and a recurring grant of Rs 5 crores each year during the 5 years from the commencement of the Act. The Central Government are empowered to alter the amount of such recurring grant in any year, having regard to the actual requirements of the Board. The Board is required to maintain two Funds; National Co-operative Development Fund and National Warehousing Development Fund. The former fund is used for advancing loans and granting subsidies to State Governments for the purpose of enabling them to subscribe to the share capital of co-operative societies or otherwise financing co-operative societies. The latter fund is to be used for (1) subscribing to the share capital of the Central Warehousing Corporation; (2) advancing loans to State Governments for the purpose of enabling them to subscribe to the share capital of State Warehousing Corporations; and (3) for advancing loans and granting subsidies to a Warehousing Corporation or to a State Government for the purpose of promoting the warehousing and storage of agricultural produce.

In accordance with the Provisions of the Agricultural Produce (Development and Warehousing) Corporations Act, 1956, the Central Warehousing Corporation was established on March 2, 1957 with a share capital of Rs 10 crores. The authorised capital of the Corporation is Rs 20 crores. The shares of the Corporation are guaranteed by the Central Government as to the repayment of the principal and the payment of the annual dividend at such minimum rate as may be fixed by them. Up to the present day, the National Development and Warehousing Board continue to provide financial assistance during the year in pursuance of its programme in the sphere of co-operative credit, marketing, processing, etc., which was expected to involve a financial outlay of the order of Rs 7 crores. In respect of warehousing, the Central Warehousing Corporation set up warehouses at 3 places, Moga (Punjab) Chandusi (UP) and Kozhikode (Kerala), bringing the total number of warehouses to ten. All the States have now warehousing corporations, eight of them having established 41 corporations so far. The share capital of these Corporations is expected to be further augmented during the year by Rs 1 crore to be subscribed equally by the Central Warehousing Corporation and the Governments.

These activities of the Reserve Bank prove beyond doubt that the Bank has expanded its function in regard to the provision of agricultural credit in recent times. It is only the weakness of the Co-operative Movement after the close of the thirties and the limit policy objectives of the State that have been responsible for its insignificant role in this sphere. The pre-nineteen fifty period. The fact that, in increasingly participating in agricultural finance, India's Central Bank has been moving in the right direction is amply illustrated by the testimony given by a foreign expert in his memorandum to the Planning Commission when he said that the Reserve Bank had been giving new life to a potent leadership to the co-operative Credit Movement in recent years. "Probably, no other Central Bank in the world," he remarks "is doing as much to help develop and finance co-operative credit institutions." Unlike Central Banks of developed countries, the Reserve Bank, as the Central Bank, has not only been controlling credit, but in addition promoting a credit structure to meet the growing needs of agricultural development. This positive function imparts to activities a somewhat different character from that of similar institutions in countries like the U.S. and France.

Some Aspects of Public Expenditure in India

By Professor V. G. RAMAKRISHNA AIYAR

THE purpose of a study of Public Expenditure is to discover the meaning of expenditures through the agency of the State for the life of the people. In this way, we may arrive at those general principles which control governmental appropriations. The general principles of public expenditures cannot be formulated into definite rules of administration but they will prove useful in defining the several points of view from which appropriations may be considered and thus lead to an adjustment of the nation's finances in harmony with the political and social ideas of the people. The appropriations from the public purse are likely to be abused. But the remedies for such abuse are to be found not so much in a rigid code of financial maxims but in an efficient organisation of control and an intelligent public opinion.

The need for a thorough and careful inquiry (both in the Central Government and in the States) into the whole question of public expenditure in India was stressed by the Taxation Enquiry Commission and it was suggested that such inquiries should be undertaken by sufficiently high-powered bodies and at a fairly early date. In a modern developing economy of a country like India, the budgeted expenditure on various expansion schemes becomes colossal. For instance, in the pre-war period, that is, prior to 1939, the budgeted expenditure of the Central Government stood at Rs 86.61 crores and, out of this, the Defence Department absorbed Rs 47.35 crores, leaving Rs 39.26 crores for civil expenditure. Even in regard to the latter, the debt services (excluding interest transferred to railway) took away Rs 21.04 crores while the amount left for civil expenditure hardly amounted to Rs 10.44 crores. The function of the pre-war Central Government only related to the maintenance of law and order while, since independence, the ideal has changed into that of Welfare State. Government have further assumed the responsibility for directing the activities of various Ministers and State Governments to the attainment of optimum economic activity. Central Government revenues have now begun to reach a level of over Rs 500 crores and, before the expiration of the Second Five Year Plan, they might go to well above Rs 800 crores. Besides, Government have begun to increase expenditure through loan floatations and deficit financing. The Finance Minister recently stated that, in order to tackle the problem of unemployment even to a moderate extent, Government would have to spend Rs 1,000 crores to Rs 1,200 crores per annum. The need therefore for utmost restraint on the growth of expenditure, both non-developmental and develop-

mental and whether of the Centre or in the States, can hardly be overemphasised. During a phase of intensive development effort, when targets in terms of expenditure also assume a certain degree of significance, there is likely to be, even within the development sector of expenditure, some room for economy and avoidance of waste. The power to sanction and the control over this huge quantum of expenditure have become important. An analytical study of Indian public expenditure is useful for understanding its present pattern and devising ways and means for its efficient administration.

The Distribution of Public Expenditure in India.

It is somewhat difficult to analyse the public expenditure of the Indian Union owing to the discontinuity between the periods before and after 1947, with all sorts of abnormal expenses such as the cost of partition, the large and unexpected expenses of the refugees and displaced persons, and the cost of mergers with the ex-princely States. There has been a definite change of policy since 1947. In the first place, independence gave a stimulus to expansion with the possibility of making use of sterling balances accumulated during the war; secondly, expansion of social services and the development of the natural resources of the country at a faster rate were given great priority.

Further, the way in which expenditure figures are presented in the budget makes it somewhat difficult to analyse. In the Central budget, expenditure is classed under ninety-three heads based on the demands for grants. A further difficulty is that items which appear on both sides of the budget are gross items and they have to be reduced to net items before a true account of revenue and expenditure can be obtained.

Detailed figures for State expenditure must be derived from the individual State Budgets. Among the main heads of expenditure by the Union Government, defence is nearly half of Union expenditure but, taking the States into account, it does not amount to more than 25 to 29 per cent of total Public outlay. First, the general budget covers nearly the whole of defence expenditure; a much smaller proportion is accredited to the capital budget than in most countries in South East Asia. Secondly, many purely administrative posts are still held by the army and figure on the army demand although they have now no military significance (i.e., the administration of States' Governor's household). Thirdly, considerable temporary expenses are incurred on account of the armies of ex-Princely States which are integrated into the forces of the Indian Union.

As regards civil administration, the large and growing cost including tax collection (about 10 per cent in budget estimates) are to be explained to some extent by the inclusion of items resulting from integration of ex-Princely States and clumsy classification of certain items of administrative expenses; and in other instances the increase is due definitely to administrative expansion.

In contrast to expenditure on defence and general administration, expenditure on social services as public health, education etc., is meagre, but here it is necessary to take State expenditures into consideration, since the States carry on these services, the Union Government being mainly a grant-giving body.

Expenditure of the Ministry of Labour together with outlay on food, rehabilitation and "displaced persons" may be taken together. Indian food expenditure includes procuring foodgrains from producers at fixed prices, "Grow More Food" expenditure, imports of foodgrain, and distributing the supply to working population of certain towns through controlled fair price shops. Food policy is closely connected with rehabilitation expenditure on refugees from West Punjab and East Bengal.

The problem of the refugees is closely linked to agricultural policy and especially to the Grow More Food campaign. Agriculture is one aspect of development. Economic development in the narrower sense of an increase in power-manufactures takes four forms in the budget estimates: (i) assistance to private producers or semi-public corporations, especially aluminium production and ship-building, (ii) establishment of Publicly-owned factories including some for the manufacture of medical products, (iii) for development of posts and communications, (iv) Power-schemes or more generally "Multi-purpose river valley Projects".

The capital outlay of the Union Government may be grouped under three heads; (i) Industrial development, (ii) civil works, (iii) irrigation, Power, etc. The amounts devoted to these purposes are shown in the capital account of the budget statement. The industrial development projects in the capital budget of the Government of India would show that at present they are the most expensive items. The largest grant to private enterprise is for the ship-building industry. Civil Aviation is another important piece of capital investment. The principal

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item in civil works development expenditure is Highways.

In many ways, the more important aspect of development expenditure in India is the multi-purpose river project both to provide fuel and power and irrigation for farming. For the most part, these schemes have been sponsored and the initial preparation undertaken by the States in whose areas the projects lie and there has been a go-slow policy. Although many of the development schemes in the first years of Independence were over-optimistic, particularly some of the Provincial schemes, and had too little co-ordination of programmes, there is no doubt that emphasis on development was profoundly correct.

State Expenditure

From the financial point of view, the most important powers and duties on the State list are the following (Schedule 7, list II).

Public order, Police and Justice, etc., except for the Supreme and High Courts.

Local Governments of all sorts; Public Health and Sanitation, including water, intoxicating liquor production, possession and sale; Relief of disabled and Unemployed;

Education, including Universities except national Universities; Libraries, Museums, etc., Local communications; Agriculture and Pest control, in-

cluding veterinary services and irrigation;

Improvement of livestock, etc., Gas and gas works.

In addition, the following entries on the concurrent list (Schedule 7, List III) include the most relevant subjects on which the Union and State Governments have joint rights and duties;

Economic and social planning; Social security, social insurance, employment and unemployment; Welfare and Labour; Vocational and technical training;

Relief and Rehabilitation of displaced persons;

Mechanically propelled vehicles; electricity.

It will be seen that the social services have been almost completely allocated to the States as well as important duties in connection with agricultural development. The States have elaborated plans for industrial and general development and they administer funds supplied by the Central Government in important inter-state Projects like the Damodar Valley Scheme.

The most interesting aspect of State Expenditure policy is the development programme, which has had a chequered career. The first stage was marked by great activity during which State industries and projects involving public ownership were eagerly planned;

in the second stage, the programme had to be halted owing to continuous rise in world prices of materials and partly to the nature of the projects which called for increasing imports; the third stage when the Central Government, owing to balance of payments difficulties, had to cut down loans and grants. Certain States, however, were able to continue their programmes independently either from current revenue surpluses or by drawing from balances accumulated during the war.

Taking all the States together, the Central Government normally give loans for long term projects such as irrigation works and Electrical development and grants for social service investment and especially for Grow More Food. Since, in recent years, Central assistance has covered more than 50 per cent of State development expenditure, this dependence on Central help greatly influenced the tempo of State development expenditure, and it could be an important factor in a counter-

Growth of Public Expenditure (1950-51—1955-56).

	1950-51	1951-52	1952-53	1953-54	1954-55	1955-56
1. Non-Developmental	505	634	549	521	642	634
(a) Revenue	476	516	522	532	547	586
(b) Capital	29	118	27	(—)11	95	48
2. Developmental	455	506	527	601	747	1053
(a) Revenue	241	252	265	300	334	435
(b) Capital	214	254	262	301	413	618
3. Total Expenditure	960	1140	1076	1122	1389	1687
(a) Revenue	717	768	787	832	881	1021
(b) Capital	243	372	289	290	508	666

cyclical fiscal policy. In all States, the amount of development finance derived from Provincial loans is small, perhaps due to the current conditions in the capital market.

Public expenditure in the First

Five Year Plan.

The importance of the public sector in promoting development may be seen from the step-up in public expenditure over the plan period. By the end of the First Plan period, i.e., 1955-56, the total public expenditure; revenue and capital, by the Centre and States was Rs 1,687 crores as compared to Rs 960 crores in 1950-51—an increase of about 75 per cent. The bulk of this was on account of the growth of developmental expenditure, which rose from Rs 455 crores in 1950-51 to about Rs 1,053 crores in 1957-58, that is, by 132 per cent, and markedly non-developmental expenditure also increased during the First plan period but it was, in 1957-58, of the order of 37 per cent of total expenditure as compared to 53 per cent in 1950-51.

It needs to be emphasised that, though the development expenditure has been increasing, there has not been proportionate increase in public revenues. Further, of the increase in revenue, a considerable proportion has been taken up by the increase in non-developmental expenditure. For instance,

Expenditure incurred on the First Plan.

	1951-56	Expenditure incurred as percentage of target
Centre	1,114.9	80.2
States	897.5	90.8
Total (Centre and States)	2,012.4	84.6

Some Recent Trends.

It has been possible to have an integrated picture of India's public expenditure and public revenues only since 1950-51 with the complete financial integration of ex-princely states, the working of the new constitution and the beginning of the First Five Year Plan. At the same time, it is useful to note the changes in the composition and character of public expenditure during recent decades. The first significant trend is the change-over from unproductive to productive expenditure both by the Central Government and by the States. Taking first Central Government expenditure, outlay on defence has dropped from 54 per cent in 1938-39 to 48 per cent in 1953-54, while the expenditure on debt services has fallen from 17 per cent in 1938-39 to 9 per cent in 1953-54; the expenditure on social services and on development services has risen from 2 per cent to 5 per cent in 1938-39 to 5 per cent to 9 per cent respectively in

of the increase of Rs 187 crores in public revenue in 1955-56 (the last year of the First Plan) as compared to 1950-51, as much as Rs 110 crores was absorbed in non-developmental expenditure.

The progress of developmental expenditure by the Centre and the States in the First plan period may be indicated as follows.

1953-54. In fact, productive expenditure as a whole has gone up from 11 per cent in 1938-39 to 20 per cent in 1953-54. Similarly, in the case of the States, non-development expenditure (excluding debt services) fell from 53 per cent in 1938-39 to 45.5 per cent in 1957-58. Expenditure on social services increased from 21.5 per cent in 1938-39 to 24 per cent in 1957-58 while that on development services increased from 17 per cent in 1938-39 to 26 per cent in 1957-58; in fact, development expenditure as a whole (including the major part of grants-in-aid to local bodies) increased from 39 per cent in 1938-39 to more than 50 per cent in 1953-54, indicating thereby the change that has taken place in the nature of States expenditure.

For purposes of illustration, broad picture of the current public expenditure of Central, State and Local Governments for 1953-54 is given here, showing how a rupee of the total revenue expenditure of all Governments was spent.

Expenditure of all Governments on Revenue Account (1953-54).	Rs. A. P.
1. Non-development:	
Direct Demands on Revenue	0 0 9
Interest on Debt and other obligations	0 0 10
Debt Retirement	0 0 3
National Defence (net)	0 3 5
General Government—	
(a) External Affairs	0 0 1
(b) General Administration	0 1 0
(c) Administration of Justice	0 0 2
(d) Jails and Convict Settlements	0 0 2
(e) Police	0 1 0
(f) Others	0 0 9
(g) Miscellaneous	0 1 2
Sub-total	0 9 7
2. Social Services:	
Education	0 1 5
Public Health	0 0 3
Medical	0 0 6
Others	0 0 11
Sub-total	0 3 1
3. Economic Development:	
Agriculture	0 0 6
Veterinary	0 0 1
Co-operative	0 0 1
Community Development Projects	0 0 2
Irrigation and Forests	0 0 5
Industries and Supplies	0 0 5
Civil Works	0 1 5
Others	0 0 2
Sub-total	0 3 3

The pattern of distribution of public expenditure shows that 60 per cent was incurred on non-development functions, namely defence, administrative items, debt services and collection charges; less than 20 per cent on social services and 21 per cent on economic development. It will be seen that national defence accounts for about one-fifth of the total expenditure and general administration is 19.5 per cent. As regards the expenditure on development services, a substantial part is covered by civil works (roads, bridges and buildings) followed by agriculture forests, industries, etc. In the case of the States, police and jails figure as the largest item, accounting for 12 per cent of the total expenditure; education accounted for 11.5 per cent; civil works 9.9 per cent; and agriculture 5.7 per cent.

As regards per capita expenditure of the States, the disparity in expenditure is partly to be explained in terms of population density. There are also marked differences in per capita expenditure among individual states. Mysore has the highest per capita expenditure with Rs 24-3-6. The lowest in the scale are Bihar (Rs 8-12-9) and Orissa (Rs 10-0-9). As regards non-developmental heads, the largest proportion of expenditure, i.e., between 55 and 60 per cent, was incurred in Uttar Pradesh and Punjab; and on Social Services, Bombay and Mysore show the highest Rs 5-12-8 to Rs 5-8-5 respectively, while Bihar and

Orissa have a low figure of Rs 1-15-8 Rs 2-1-3 respectively. West Bengal spent relatively more on medical and health services (10 per cent) than any other States compared with 5 to 6 per cent spent in Madras, Uttar Pradesh and Madhya Pradesh.

Redistributive Effects.

Another recent trend in Indian Public expenditure is its redistributive effects. The combined expenditure (on revenue and capital accounts) of the Central Government, the States and the Local authorities amounted to Rs 1,170 crores in 1953-54 and formed 11 per cent of the national income. So far, the extent to which Indian public expenditure brings about a reduction in economic inequalities has not been very significant, partly because the total volume of public expenditure forms but a small proportion of the total national income and also because the expenditure on social services has been relatively small. Apart from food subsidies and the expenditure connected with relief and rehabilitation of displaced persons, industrial housing and the amelioration of scheduled and backward classes, there are hardly any other directly redistributive expenditures of importance in the Indian budget. The redistributive power takes place both directly and indirectly—directly through the regional distribution of central expenditure; indirectly through the

“*ā bhāre nathi—ā māro bhāi chhe!*”

“He’s not heavy, he is my brother!” says the five-year-old Champa to the farmer. He stands bemused at this strange logic. His eyes follow this little girl carrying her impatient two-year-old brother to the AMUL Free Milk Distribution Centre of the village. He thinks of this new generation—bold and independent. He thinks of the 16,000 other children, between the ages of one and six, who get six ounces of milk free every day. These children do not know, but he knows that this scheme is the result of an agreement between the UNICEF, the Kaira District Co-operative Milk Producers’ Union Ltd., Anand, the Government of Bombay and the Government of India. His chest swells with pride as he walks on the pucca road he has helped build. Once it was a narrow pathway one stumbled along even in broad daylight! Now his village is no more a slumbering hamlet. Today, it has a school, a library and a dispensary. He recalls the day when electricity came to his hut... how afraid his wife was to touch the switch! And that water-tap in their hut... Yes, going, going are the days when she had to walk miles to fetch a pail of water, and when they had to retire at sunset. And he thinks of his own contribution. Of the 40,000 farmer members of the 138 Village Milk Producers’ Co-operative Societies affiliated to the Union. Of their joint effort which is fostering a spirit of resurgence in the countryside. Of Champa, the symbol of the rising generation of Kaira, and of the day when she will lightly bear the responsibility of her community—the brotherhood of Kaira.

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Gandhi Road	Churchgate	COCHIN
Manek Chowk	Fort	COIMBATORE
Maninagar	Kalbadevi	DELHI
Navrangpura	Malabar Hill	GANDHIDHAM
Station Branch	Santa Cruz	(Kutch)
Slon	HYDERABAD	POONA
AMRITSAR	BHUJ (Kutch)	RAJKOT
BANGALORE	CALCUTTA	SHOLAPUR
BARODA	23B, Netaji	JAMSHEDPUR
BOMBAY	Subhas Road	JUNAGADH
Andheri	(Main Office)	KANPUR

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division of shared taxes on the basis of population and by way of larger grants-in-aid to the backward or financially weaker states. The redistributive effects of public expenditure are more marked in the case of Central Government expenditure as Central revenues are raised under uniform tax laws without regard to their higher tax incidence on larger regional incomes; and distribution of Central expenditure is always determined in terms of broad national requirements. For instance, the multi-purpose river valley projects, which will raise the income levels of backward areas, are being financed out of Central resources which are largely raised by taxation and

borrowing from the more prosperous parts of the community. Similarly, grants-in-aid to backward States and the importance given to the population basis in the scheme of distribution of divisible revenues also have a redistributive effect. The redistributive process of Indian public expenditure operates on the national plane in reducing inter-State disparities of resources and also at the State level by reducing the disparities between the resources and need of urban and rural areas. For instance, the collections and expenditures in the three cities of Bombay, Calcutta and Madras show the larger contributions of these cities to the tax resources of

their respective states. This process of redistribution is passed on by the State Governments to their local bodies in the form of grants-in-aids. Finally, the steadily growing expenditure on social services serves to diminish the unpopularity of the tax system, and the development expenditure is likely to increase in the long-run the taxable capacity of the people. But the redistributive effect of Indian public expenditure can be substantial only with an increase in the ratios of public revenues and expenditures to the national income.

In conclusion, the savings left in the community ought to determine public expenditure. In India, where the national income

is low but the population is high, personal consumption expenditures would absorb a large part of the national income with very little national savings. The private expenditure in India is not capable of reduction, since it is largely essential in quality and content, so that the programme of public expenditure should be related to national savings. But, in India to-day, we have modern expenditures without modern incomes. It is therefore necessary to search for savings in public expenditure and to see that every rupee is efficiently spent so as to secure the maximum amount of goods and services with minimum monetary outlay.

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DISTRIBUTION OF PLAN OUTLAY UNDER MAJOR HEADS OF DEVELOPMENT.

	(Rs. in Crores).			
	First Five-Year Plan		Second Five-Year Plan	
	Total provision	Percent	Total provision	Percent
Agriculture and Community Development	357	15.1	568	11.8
Irrigation and Power	661	28.1	913	19.0
Industry and Mining	179	7.6	890	18.5
Transport and Communications	557	23.6	1385	28.9
Social Services	533	22.6	945	19.7
Miscellaneous	69	3.0	99	2.1
Total	2,356	100.0	4,800	100.0

SECOND FIVE-YEAR PLAN.

Allocations and Outlays by Major Heads of Development.

	(Rs. in Crores).			
	Allocations as originally made in the plan		Allocations now proposed	
	Percent	of total	Percent	of total
Agriculture and Community Development	568	11.8	510	10.6
Irrigation and Power	913	19.0	820	17.1
Industry and Small Industries	200	4.2	160	3.3
Villages and Minerals	690	14.4	790	16.5
Transport and Communications	1,385	28.9	1,340	27.9
Social Services	945	19.7	810	16.9
Miscellaneous	99	2.0	70	1.5
Total	4,800	100.0	4,500	93.8

FIRST FIVE-YEAR PLAN.

Synoptic Table of Development Expenditure—Centre and States.

	(Rs. in Crores).	
	1951-56 Expenditure incurred	Expenditure incurred as percentage of total
Centre	1,114.9	80.2
States	897.5	90.8
Total (Centre and States)	2,012.4	84.6

PATTERN OF OUTLAY.

	(Rs. in Crores).	
	Percent of total outlay as now estimated.	Percent of total outlay as originally proposed.
Agriculture and Community Development	15.0	16.0
Irrigation and Power	29.0	28.0
Industries	5.0	8.0
Transport and Communications	26.0	24.0
Social Services (including miscellaneous)	25.0	24.0
Total	100.0	100.0

SECOND FIVE-YEAR PLAN.

	(Rs. in Crores).		
	Total	Centre	States
Five-year Plan Allocation (Original)	4,800	2,559	2,241
Five-year Plan Allocation (Revised)	4,800	2,593	2,207
Anticipated Outlays for 1956-57	2,456	1,394	1,062
Anticipated Outlays for 1956-61	4,500	2,452	2,048

GROWTH IN CENTRAL GOVERNMENT DISBURSEMENTS.

	(In Rs. Crores).			
	Revenue Receipts	Revenue Expenditure	Surplus (+) or Deficit (—)	Capital Disbursements
1951-52	401.04	375.43	+ 25.61	243.16
1952-53	404.98	401.25	+ 3.73	245.15
1953-54	439.26	438.81	+ 0.45	317.51
1954-55	452.88	467.09	— 14.21	433.08
1955-56	490.46	498.93	— 8.47	662.65
1956-57	527.75	545.43	— 17.68	743.87
1957-58	712.82	668.09	+ 44.73	939.52
1958-59	768.99	796.01	— 27.02	890.65

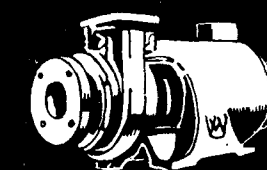
MAIN HEADS OF REVENUE EXPENDITURE.

	(Rs. in Crores).		
	Direct demands on Revenue	Civil Admn.	Defence Services
1951-52	14.58	56.02	180.02
1952-53	15.76	55.98	197.95
1953-54	32.49	71.27	199.84
1954-55	32.19	86.08	205.62
1955-56	33.13	111.76	202.68
1956-57	37.15	135.91	203.97
1957-58	41.08	191.62	254.70
1958-59	94.45	200.44	278.14

MAIN HEADS OF CAPITAL DISBURSEMENTS.

	(Rs. in Crores).		
	Railways	Industrial Development	Advances to State Governments
1951-52	19.62	10.56	62.62
1952-53	15.36	10.10	72.84
1953-54	18.97	6.75	93.75
1954-55	33.93	24.10	178.79
1955-56	66.09	16.42	279.29
1956-57	43.43	79.60	274.26
1957-58	124.17	185.92	248.37
1958-59	138.84	193.09	279.32

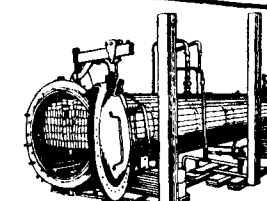
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EXCHANGE



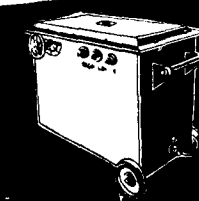
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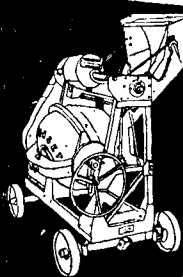
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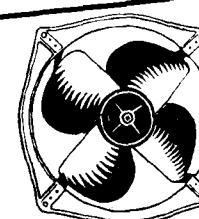
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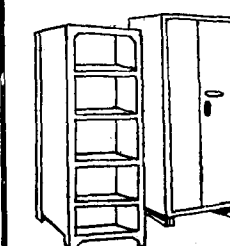
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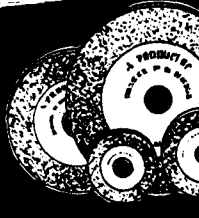
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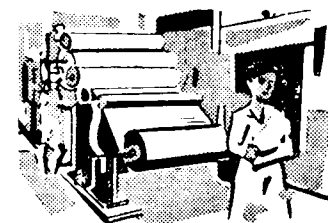
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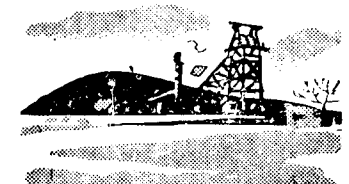
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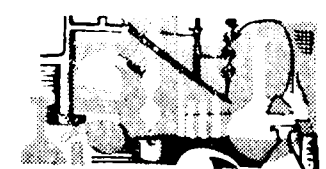
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Automobile Industry

HE upward trend in automobile production, interrupted in 1958 owing to restrictions imposed by the Government on import of unmanufactured components seems, from production figures available for the first half of the year, to have been resumed. In 1957, automobile production stood at its highest with a total

of 33,058. This dropped to 25,805 in 1958 owing to shortage of foreign exchange which precluded imports of components. Production for 1959 is expected to exceed the level achieved in 1957 and the figures available for the first six months would seem to point to such a possibility.

	Installed capacity	Total	Cars	Jeeps	Station wagons	Trucks	Passenger buses
1959:							
January	4,150	2,992	1,002	464	1	1,125	392
February	4,150	2,339	509	558	7	879	386
March	4,150	2,676	803	471	9	852	541
April	4,150	2,041	524	187	10	1,043	277
May	4,150	2,598	753	226	7	1,177	436
June	4,150	3,008	984	437	7	1,276	304
July	4,150	3,291	1,101	541	6	1,318	295
August	4,150	3,526	1,241	403	7	1,458	417

The difference in production between the various items reflects Government's policy toward the industry. For example, it has been urged upon the Government by the Tariff Commission, that production of cars would have less preference in respect of allocation of foreign exchange and this has been faithfully adhered to by the Government. Speaking in the Lok Sabha, Mr Manubhai M. Shah, Union Minister for Industries, pointed out that during January-September 1959 production of automobiles including cars, jeeps and trucks totalled 25,894.

This level of production represents spectacular progress considering that at the beginning of 1950 as of a low order and mostly consisted of assembling imported components. Even now the industry is far from having achieved self-sufficiency in component production. However against the target fixed for the Second Plan at 57,000, the present level of production seems inadequate. Demand for automobiles at the end of the Plan period has been estimated to rise to this level. The backlog of unsatisfied demand at the end of the Plan period is bound to affect prices for automobiles. Already high prices arising from high cost and small level of production has become a serious problem for the industry.

In respect of the proportion of indigenous components manufactured within the country, the position varies from 49.4 per cent in the case of standard "10" car to 73.4 per cent in the case of Hindustan Ambassador Car. Though the target envisaged at the end of the Second Plan was 80 per cent, in the context of the handicaps that had developed and particularly in view of the foreign exchange shortage which prevented imports of raw materials on a needed scale, the progress appears commendable.

The key to the progress of the industry lies in stimulating demand for automobiles which at present is very low to permit production of vehicles on an economical basis. Production has to be organised on a mass scale to spread the overheads which in the case of the automobile industry is very high, over larger number of vehicles. The automobile industry at present does not seem to have been fully geared to its capacity and underutilisation

of 33,058. This dropped to 25,805 in 1958 owing to shortage of foreign exchange which precluded imports of components. Production for 1959 is expected to exceed the level achieved in 1957 and the figures available for the first six months would seem to point to such a possibility.

Heavy taxation of raw materials dependence on imports for raw materials and lack of well-developed ancillary industry to supply components, are factors which tend to high cost of production of automobiles in the country. Taxes at present account for more than 30 per cent of the prices paid by the consumer for the vehicles manufactured in the country. In view of the small scale of production, cost of indigenous components and of the products of ancillary units also tends to go high. On the raw material side, apart from the lack of indigenous sources for

special types of steel, the high prices of ordinary steel required by the automobile industry goes to inflate the cost structure. In assessing the scope for bringing down the cost of production these various aspects such as Government taxation, small size of the ancillary industry and internal prices of indigenous steel have all to be taken into account.

Concern at the high cost of indigenous cars produced by the industry has led to the setting up of a Committee by the Government with a view to exploring the scope for the production of a car in the price range of Rs 5,000/7,000. The Committee which was headed by Mr Jha had discussion with representatives of the industry and consumers in the course of which a number of schemes for the production of cars in the price range fixed by the Government had been submitted. However a final decision on the question is yet to be announced.

In taking such a step, the Government had no doubt revealed a welcome awareness of the need for bringing down cost of production. However the Government do not seem to have viewed the problem in the proper perspective. While there cannot be any questioning of the need for bringing down the cost of production, whether this could be done by starting a new unit of manufacture appears doubtful. Having recognised the need for producing a low priced car, it is incumbent on the Government to create the necessary conditions under which such production could be carried on. This would call for a more sympathetic policy on the part of the Government in respect of foreign exchange allocation for spare parts, components and the special types of steel required by the industry.

The interest evinced for the production of cheaper cars also represents a change in the erstwhile policy which involved priority to manufacture of trucks and passenger cars. A responsive reaction in the production of cars is already discernible and the number of cars produced during the current year is estimated to be higher. By 1960-61,

production of cars is expected to reach the level of 6,000.

Production of all types of vehicles at present is far below demand. In respect of cars the orders on the files of the existing manufacturers are believed to have piled to unforeseen limits. The demand for trucks is also at a level calling for doubling of output. The extent to which the arrears of unsatisfied demand are cleared would depend purely upon the policy adopted by the Government in respect of the import of components and spare parts.

The case for a new policy toward the automobile industry warranted by the present trend in demand and cost of production is further reinforced by the need to promote road transport, in respect of which the leeway to be made up is great. A bolder programme of development than undertaken under the Second Plan is envisaged for road transport during the Third Plan. Development schemes for the automobile industry would also have to be drawn to bear relation to the schemes for road development. Self-sufficiency in automobile production which should include self-sufficiency in components should be a feasible proposition during the third plan period.

One important requirement in this regard is the development of the ancillary industry to supply all the components and spare parts required for automobile manufacture. Production of the ancillary industry had of course increased in the last decade. From Rs 42 lakhs in 1951, value of automobile ancillary production has increased to more than Rs 5 crores in 1959. This however would work out only to a meagre percentage of the requirements of the industry. More units have to be encouraged to start production, and in this regard 1959 had seen some hopeful trends. Schemes for production of new items and expansion of capacity for old items have been approved by the Government. These include licences for the manufacture or expansion in the existing capacity of heavier types of vehicles direction indicators side lamps, etc.

AUTOMOBILES AND ANCILLARIES CAPACITY AND PRODUCTION IN 1957 AND 1958

		ACCOUNTING UNIT NUMBERS.					
Sl. No.	Name of the Industry	No. of Units	Installed capacity	Actual Production	No. of Units	Installed capacity	Production
1.	Automobiles	6	49,800	33,058	6	49,800	25,805
2.	Motor Cycles	1	6,800	1,827	1	6,800	2,345
3.	Scoters including Auto (Cycles)	1	6,000	6,528	1	6,000	5,068
4.	Three Wheelers	2	...	852	2	...	424
5.	Automobile Ancillaries—						
5.	Brake Assemblies	1	180,000	1,040	1	180,000	25,395
	(a) Wheel Cylinder Kit	...	...	...	...	...	32,723
	(b) Hose Assembly	...	...	...	...	...	16,127
	(c) Master Cylinder Kit	...	...	...	...	...	500,035
6.	Brake Lining	2	...	465,456	2	...	...
7.	Clutch Assemblies—						
	Driven Plate Assembly	1	180,000	...	1	180,000	4,920
8.	Clutch Facings	1	108,000	43,910	1	108,000	53,509
9.	Cylinder Liners	2	156,000	75,775	2	156,000	77,082
10.	Dynamos	...	...	...	1	7,000	1,034
11.	Electric Horns	...	...	...	1	50,000	500
12.	Gaskets	...	...	...	...	...	...
	(a) Metallic	1	1,500,000	112,065	1	1,500,000	2,273,776
	(b) Non-metallic	...	6,000,000	...	...	6,000,000	162,928
13.	Gudgeon Pins	...	300,000	159,312	1	300,000	192,264
14.	Pistons	2	376,800	192,216	2	376,800	2,962,426
15.	Piston Rings	3	3,300,000	2,162,484	3	56,000	9,093
16.	Radiators	...	56,000	14,419	...	34,000	10,353
17.	Shock Absorbers	2	34,000	8,185	2	600,000	675,191
18.	Spark Plugs	2	600,000	369,401	1	144,000	42,176
19.	Valves	1	144,000	38,484	...	...	...

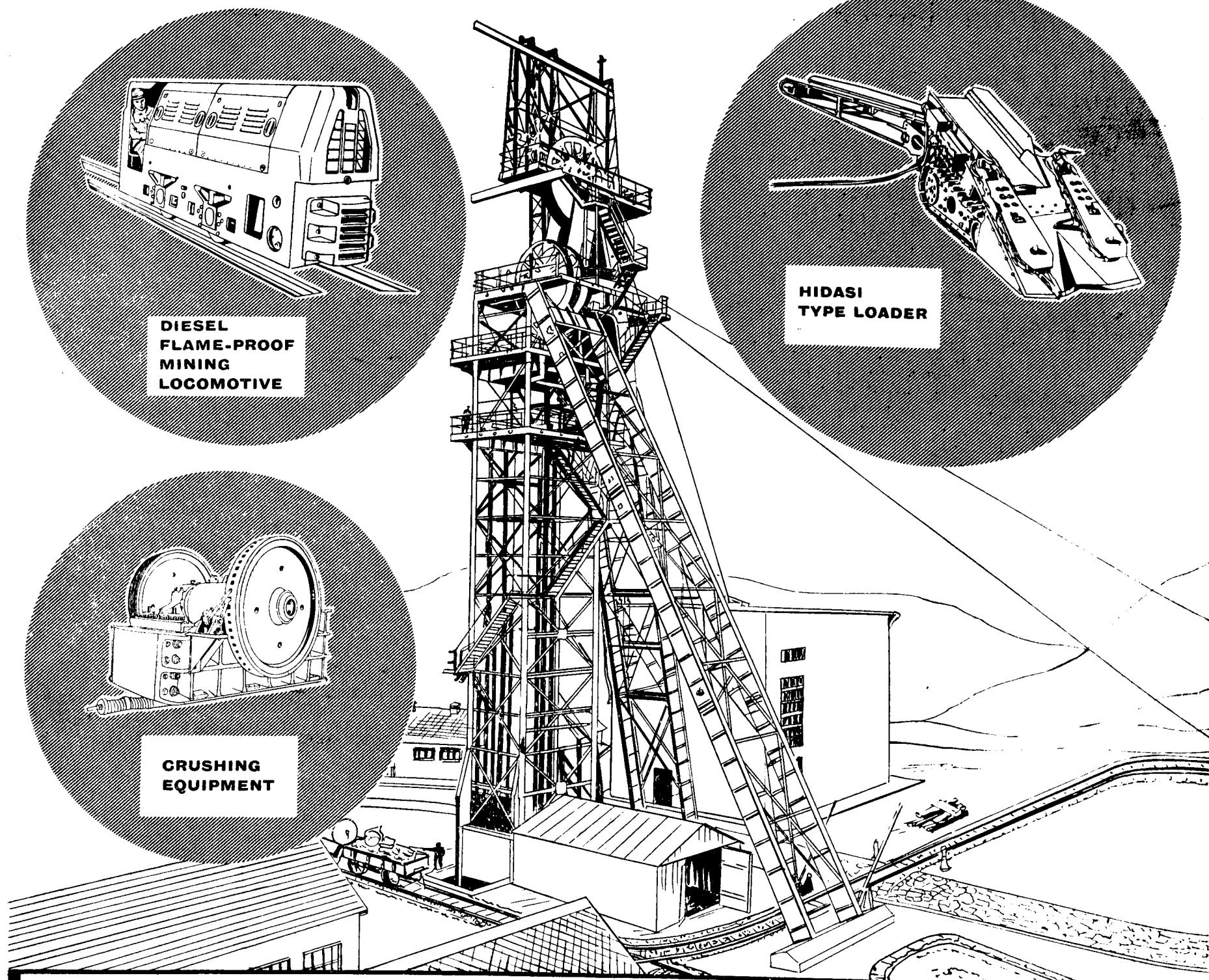
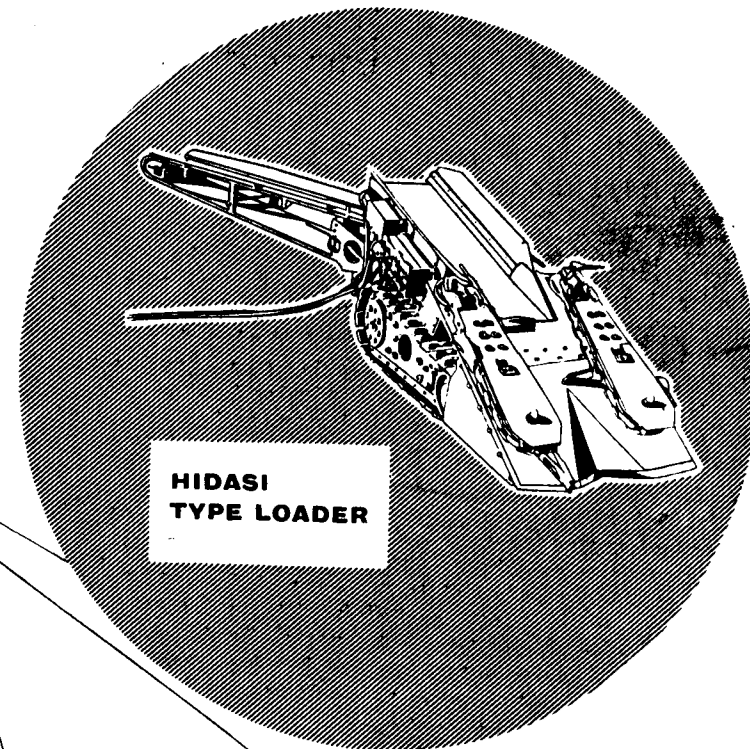
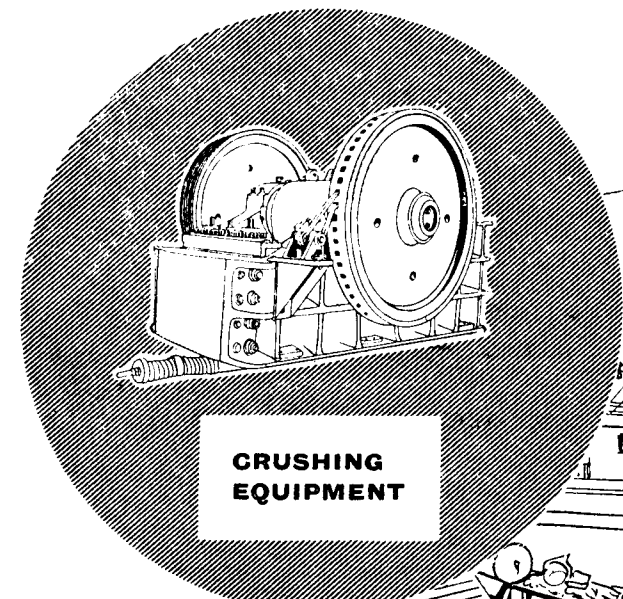
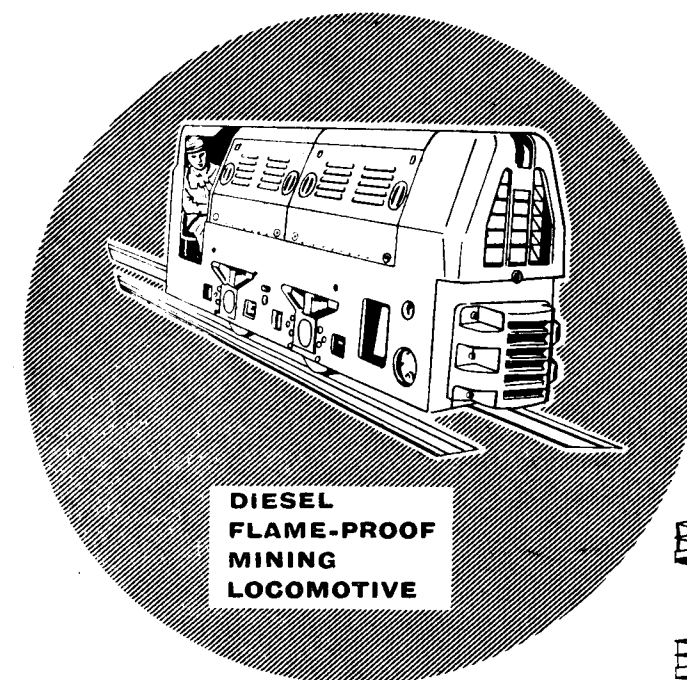


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Indian Coal Industry—Prospects for 1960

By R. H. WRIGHT

1960 is going to be a very vital year for the Indian Coal Industry and it is no exaggeration to say that the attainment of many production targets in this last full year of the Second Five Year Plan is going to be entirely dependent on the ability of the country's collieries to produce the required coal.

Coal production during 1958 amounted to 45,300,000 tons and although the final output figure for 1959 will not be known for some weeks, it is evident that it will not exceed 48 million tons. The target for the Second Five Year Plan was fixed at 60 million tons and all are agreed that the task of producing an extra 12 million tons during the last 15 months of the Plan, or an extra 25% above the 1959 output figure, is well nigh impossible. Demand has already outstripped the supply, and at the end of 1959 we find a number of large industrial units throughout the country either shut down or with production curtailed on account of lack of coal. It is true that the number of wagons made available by the Railways since November 1959 has been disappointing, and that considerable coal stocks have already accumulated at collieries, but for some 5 months previously the performance of the Railways was indeed most satisfactory and the Coal Industry was just not able to produce sufficient coal to utilise all the wagons offered. Every credit must be given to the Railways for this very fine performance during the months June/November 1959, when their Second Plan coal movement targets were exceeded, and it is indeed fortunate that we have at the helm of the Eastern and South-Eastern Railways senior officials who are intimately connected with operations in the coalfield areas and movement therefrom.

Early in 1960, the demands of the Steel Plants and the new industrial units will increase very rapidly, and it is already estimated that by the middle of the year there will be a shortage of Metallurgical and High Volatile Coals to the extent of approximately 150,000 tons and 200,000 tons per month respectively. What is to be done to retrieve the position. It is easy enough to say that the Public Sector consisting of N.C.D.C. and the Singareni Collieries are currently producing at a level of 61 million tons per annum only, whereas their Second Plan target is 15 million tons and their phased production should by now have reached a level of at least 10 million tons: it is also easy to say that production at all collieries is hampered on account of an unrealistic application of the Mines Rules and Regulations: furthermore, many connected with the Coal Industry contend that the present crisis would never have arisen had Government adopted a realistic policy by granting a reasonable price structure to this controlled industry which would have given the necessary incentive to colliery owners to produce more and more coal.

These and many other factors have certainly contributed to the present crisis, but the real cause is undoubtedly something rather less tangible: there has been no real co-ordination of all efforts directed towards attainment of the goal. The Ministry of Steel, Mines & Fuel, the Department of Mines, the colliery owners, the Mine Managers and other technical staff and labour have not been united in their efforts. Each one has a very definite responsibility to perform, and their approach to the common problem must undoubtedly be varied: the Ministry of Steel, Mines & Fuel is responsible for the direction of overall policy, largely through the very active driving force of the Coal Controller, and the Minister has a personal responsibility to the country to ensure that inflationary tendencies are not encouraged by fixing the controlled selling prices of coal at an unreasonably high level. The Department of Mines are directly responsible to the Labour Ministry for ensuring the satisfactory working of all collieries under safe conditions, and in the absence of any directive to the effect that a reasonable application of regulations should be permitted in the interests of attaining production targets, there is little that they can do to deviate from the narrow course. The main colliery owners in the Private Sector operat-

ing as public limited companies have a very definite responsibility to their shareholders; they do in fact operate many of their collieries at an actual loss, but those responsible for their operations cannot be expected to continue investing money, which after all belongs to many thousands of shareholders all over the country, into operations which they know are entirely uneconomic under the present price structure. Colliery Managers and senior technical personnel bear the main brunt of criticism from all sides, and it is only fair and reasonable that they should be left in peace to carry out the general directives of the owners, to comply with the rules and regulations governing both safety and proper methods of mining, and to discharge their responsibilities towards the labour employed in a fair manner. As for the labour working in the mines, they are the vital link in the chain and upon them depends the physical extraction of the coal. They must realise that their wages and living and working conditions have improved very considerably since the 1956 Labour Tribunal Award, and at the present juncture of the country's fight to better the lot of all our people, further improvements in the earnings and conditions of miners must be dependent on an improved performance of the miners themselves.

The Coal Council of India consisting of many top-ranking officials and personnel connected with the Coal Industry is certainly there to guide the Ministry in making their policy decisions. Nevertheless, the stupendous task ahead of the Coal Industry can only be achieved if the problem is placed on a priority footing. The five main parties together with the Railways and others must investigate the cause of each and every bottleneck and of every obstacle standing in the way of getting out ever-increasing quantities of coal and of delivering this to the consuming centres. At many collieries to-day production of much needed high grade coal is being severely curtailed on account of the non-availability of a few spare parts for vital machinery, on account of absence of permission to depillar in a non-gassy seam lying at some considerable depth, and on account of other similar reasons. It is so important that there should exist machinery which could examine without delay each and every cause of lack of production at individual collieries. The speedy removal of such obstacles can contribute very largely to the attainment of coal production targets during the coming years, so that the ever expanding industrial capacity of the nation should not be impeded for lack of coal.

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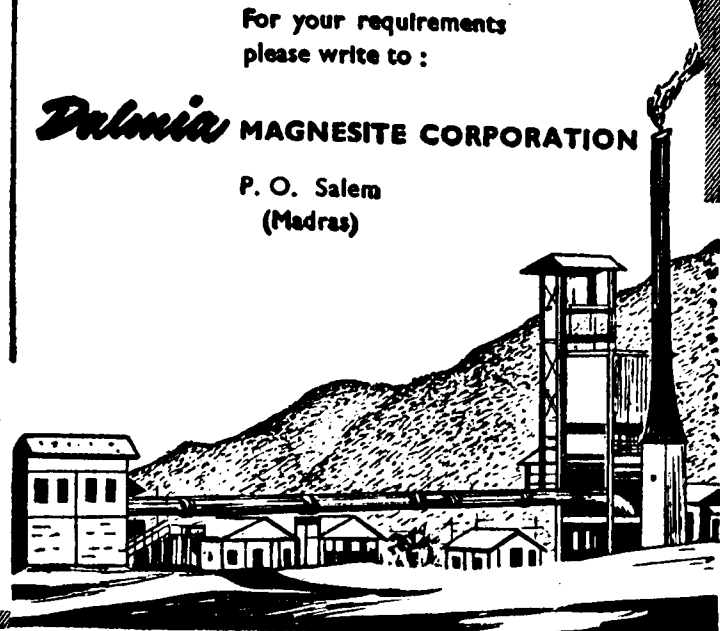
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Automation—What does it Mean?

By Dr J. N. MONGIA

THE problems posed by the introduction of automation and other industrial developments of the electronic age have become the talk of the day. During recent years, automation has continued to dominate the labour and social scene in a number of highly industrialised countries and there is considerable evidence of the increasing concern with the social and economic implications that are likely to follow the introduction of automation. The “infection” of automation seems to have affected almost all the industrialised countries; and, especially in the United States, the ideas of automation, guaranteed wages and shorter working week have become of great practical importance to both labour and management.

Some hail automation as the main hope for increased production on which the future growth of national income must depend and forecast a rising income for every one and more leisure time as well. Others fear its implications, for, to them automation means the widespread displacement of people from their present jobs, with a resulting unemployment problem of catastrophic proportions. These conflicting attitudes are hardly surprising, for, the implications of automation are uncertain, but there exists a widespread awareness that the world has entered on a new phase of technological development that is bound to affect the economy of nearly every country.

Even qualified commentators tend to describe automation as “a second industrial revolution”. They argue that, while the first industrial revolution replaced manual labour by machines, the second will replace manual control by machine control; this new industrial revolution, they say, will turn over the instruments, tasks that formerly had to be performed by men's hands and minds; and they conclude that the men will be eliminated from the industrial process or, on the contrary, that men will gain new stature, and work will become a more “human” activity, since it will require higher levels of skill, the new tasks will make larger claims on man's unique abilities with which the machine cannot compete; knowledge, judgement, responsibility in supervising more complex mechanical operations and processes that will replace the dull routine duties typical of so many industrial and office jobs of today.

There are others who observe that the complex developments in industry to which the term “automation” is applied, do not constitute a revolution, but represent the continuation of a long-term

trend, which had its inception when James Watt developed the governor for his steam engine. Since then, they argue, automatic controls and devices have been developed and applied in an ever more complex form, as one element in an almost constant stream of technological advances, and to an ever wider range of industrial operations.

Anyhow, whatever may prove to be the case, there is general agreement that automation raises vast problems for modern industrial society, even while it holds the promise, if its developments can be wisely guided, of higher standards of living and leisure-time for all. As a consequence, it is important that every member of society and especially the industrial community, most directly concerned with the developments, should gain a sound understanding of what automation really means.

Much of the material that is now being published on the subject of the labour and social implications of automation, is in the nature of speculation as to what may take place in the future. While there is a clear need for what might be called reasonable speculation, there is little point in the type of speculation that has no objective bias and tends to breed either alarm and despondency or unheeding optimism.

It is the recognition of this fact that had led, in several countries, to an intensification of research into what is actually taking place: the rate of development of automation, its effect on productivity and unemployment and other aspects of labour conditions and labour management relations, and its implications for public policy. In all cases, the aim is the same: to promote objective study of the facts in an effort to discuss the trends and facilitate the necessary adjustment to them and to avoid theoretical discussion of such questions as to whether automation is or is not a good thing.

At the same time, there has been an increase of human anxiety about automation. Whether or not founded on fact, the fears expressed in word or deed about the impact of automation are very real. They are based on the knowledge confirmed by the experience of the past—that some people will be affected adversely by technological change even if, in the long run, society as a whole benefits from it. As a result of this concern, attention has tended to centre more on the transitional problems in the desire to reduce to a minimum the social and human problems likely to be involved in the change-over.

WHAT IS AUTOMATION?

The term “automation”, it has been claimed, was coined about ten years ago by engineers in the Ford Motor Company of the USA, whose founder, Henry Ford, set up the first automobile assembly line in 1909. This word referred to a method of transferring auto parts automatically from one machine to another. As other manufacturers turned to automatic methods, automation came to mean any system used to achieve a continuous flow of production. The system always includes machines with built-in controls which enable them to adjust to changing conditions of production, correct their own mistakes, inspect the product and even replace their own parts.

It would be interesting to note that, although the performance of the modern automatic machines far surpasses the mechanisms designed during the first half of the century, automation borrows many ideas from the inventors of much earlier days. An ingenious mechanical control for governing the speed of a steam engine was used as early as 1788 by the Scotsman, James Watt. The speed of the engine acted as a check on itself, so that it could not turn

faster than the rate set by the operator. The same principle is used in the modern thermostat and in controls actuated by pressure, light or voltage. Similar instances are numerous. In the 1920's, automatic machines appear in the British and American automobile industries. But to rise beyond mere industrialisation and become a servant of wider usefulness, mass production needed a “nervous system”. This was supplied after World War II with the adoption of newly developed electronic controls. Automatic controls are the most distinctive feature of automation. They substitute for scores of simple, routine decisions usually made by the factory worker himself. As one authority has expressed it: “In our century, small electric amplifying and switching devices put automation on an entirely new footing.”

Automation has other features which distinguish it from earlier systems. They are the following:

1. The flow of production is steadier. Halting a process and restarting it, making goods in small batches, is costly to any business. Automatic machinery may be kept running continuously even 24 hours a day.



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SPURT IN AUTOMATION ACTIVITY

Modern economists are inclined to consider automation as a generalised approach to improve technical processes. It does not apply specifically to any one industry; in principle, at least, it can be applied to a wide range of industries producing quite different products. Automation may assume three distinct forms: integration, feed-back control and computer technology. Integration involves processes in which the unfinished product is moved automatically from one stage to another. Feed-back control is mainly an electronic process by which any error or divergence of a machine from planned performance is automatically corrected. Computer technology depends on the use of electronic

ally operated machines capable of recording and classifying information and, when required, of drawing conclusions from this information.

The term automation can give the exaggerated idea that all production will completely become automatic. However, it may be noted that automation is, of course, only a word which is being used to refer to a trend in technology. However, lately, there has been a great spurt in the application of automation much beyond the extent to which it had been adopted previously. There is a considerable amount of truth as well as historical evidence in the statement of late Professor Joseph Schumpeter, that the adoption of inventions tends to come in "Bunches" rather than to be spread evenly over time. And there is clear evidence these days that this "bunching" in the adoption of automation is taking place now. The intense interest that is being shown, currently, in the study and application of automation methods is itself a factor which is likely to increase the economic significance of automation even though the latter may not be particularly new from a technical point of view. It is of some interest to note that the development of automation is likely to be stimulated by the tendency of the businessmen to copy one another, especially in cases where automation is on the borderline between being financially desirable and being undesirable.

Also, there are many more factors which have, directly or indirectly, led to a spurt in automation activity. Firstly, there has not been any serious depression in the various countries ever since the end of world war II. These circumstances have led to an increase in investment and also, probably, in inventive activity. An undercurrent of optimism is clearly evident in the business community in the various countries and they are in a mood to draw long-term programmes and provide tentative equipment expansion plans for several years to come. When this is so, the business community is much more likely to consider automation projects that may involve heavy capital costs and relatively long periods for installation. Such a step, there is every likelihood, might not have been thought of if the long-run outlook for business had been as pessimistic as it was in 1930's.

Still another reason for the spurt in automation is that the rise in real wages may tend to create an increased demand for labour saving machinery. Anticipating higher wages, and in order to offset the effect of their increased cost, firms may begin a policy of mechanisation instead of merely relying upon a stiff collective bargaining policy to hold down wages, since the latter policy may not be successful now. It is, also, not illogical that some employers may decide to adopt automation simply

because an automated plant with fewer workers may involve less of the tension that may accompany dealing with a strong trade union, although this step may not lower production costs at all.

EFFECTS OF AUTOMATION

As mentioned earlier, in recent years, the ideas of automation, guaranteed annual wages and the shorter working week have assumed very great importance. It is now intended to discuss how these three factors, viz., automation, guaranteed wages and shorter hours of work, may interact with one other and to suggest problems that might arise from such interactions. It may, however, be made clear that these effects are likely to take place in a long period and, therefore, like all long-range projections, they may be regarded as tentative and subject to error.

AUTOMATION & WAGE GUARANTEES

Whether or not there is any exaggeration, it will have to be admitted that automation has created a fear (from the viewpoint of social psychology) of technological unemployment, the impact of which will be seriously felt by the industrial society of future. As a matter of fact, in some of the industrially advanced countries such as the USA, the trade unions have already started agitating for expanded wage guarantees to

cushion the adjustments to such technological unemployment that may and does result from automation.

However, even if automation does not lead to a reduction in over-all employment, it may nevertheless involve a considerable amount of movement of workers between regions. The computer technology, in particular, leads to decentralisation since, with its aid, it is possible to have more rapid and more precise methods of communicating information between separate plants and branch offices. Some of the trade unions contend that guaranteed wages will discourage such "irresponsible movement of industry" and will, in more general terms, encourage management to "plan the installation of automation in ways that will mean a minimum hardship for their present workers".

While automation leads trade unions to exert more pressure for guaranteed wages, it may also tend to make guaranteed wages more acceptable to the management since automation, while it may result in much greater output, may also make production more inflexible. If a firm is operating under conditions in which it is likely, in any case, to be ruinous to curtail production substantially, it (the firm) can guarantee employment without much additional risk. Falling production will mean tremendous losses regardless of whether or not there are wage guarantees. At the same time, one need not lose sight of the fact that not only will the risks of wage guarantees be relatively less important in an automated firm, the positive advantage of giving wage guarantees may be relatively greater, as indication has been thrown by most research workers on automation that it will raise skill requirements in the labour force. It is also certain that automation will increase the level of capital and output per worker. Under these circumstances, it is evident that the workers will take longer to train and will be harder to replace. Still more is the recognition, that a mistake in the job may mean not just ruining a tool, as in the past, but a complicated machine—not a single unit of a product but a whole series of the same product. All these factors go to indicate that the managements will be under strong pressure to reduce labour turn-over and to keep the labour force steady. To some extent, the managements will try to do so by increasing the wages of their employees since successful automation programmes will facilitate the same by increasing output. Evidently, at least from the point of view of an individual firm, any restraint on wages would be unwise if it led to frequent labour turn-over and production break-downs. However, the matter does not end here since a good deal of sociological research work has proved that labour turn-

over is not just the effect of low wages; rather, many factors continue together to make the labour force stable or unstable. For example, turn-over seems to be affected by the extent to which the individual worker is able to develop satisfying relations with a group in the enterprise. Hence the managements, if they want to achieve the desired end and maintain vitally necessary standards of efficiency, will pay close attention to the morale of their workers and see to it that they are not frustrated. In some cases, this object may be achieved by purely monetary rewards, but, if a choice were to be made between straight wage increases and employment guarantees, it is most likely that the choice would fall upon the latter since all sane people will prefer higher security to higher wages.

In short, it would seem that guaranteed wages could be adopted without great cost in successfully automated plants since employment in such plants is not likely to fluctuate widely. On this account, the managements may also enjoy the benefit of closer worker identification with the firm and of greater assurance that the worker will stay with the firm.

Incidentally, it may be noted that such a step, i.e., wage guarantees, will also have the effect of breaking down the distinction between manual workers, especially highly skilled workers, and white-collar workers. More often than not, the latter, though they may not be having any formal employment security, have always tended, in practice, to enjoy somewhat greater job security than the manual workers because their salary is often part of the fixed expenses of the firm. Hence, an increasing proportion of manual workers will think of themselves as with management and even as having all the privileges of "white collar" workers and will, as is often in the case of the latter, tend to identify themselves with management even at the sacrifice of some gains that might be obtained from collective bargaining.

However, it must be noted that whatever has been said above is subject to some limitations. It is a well known fact that, at present, there are only a few plants that are fully automated (even in highly industrial countries). These plants, in practice, may have to consider the views of other firms that are not automated or are automated to lesser extent. This would be especially so where there is industry-wide collective bargaining. The latter type of firm may often exert considerable pressure on automated firms to go slow in adopting wage guarantees or other measures that may not be considerably desirable on an industry-wide basis. As a matter of fact, it would seem that this provision of wage-guarantees may lead to most severe tensions, not

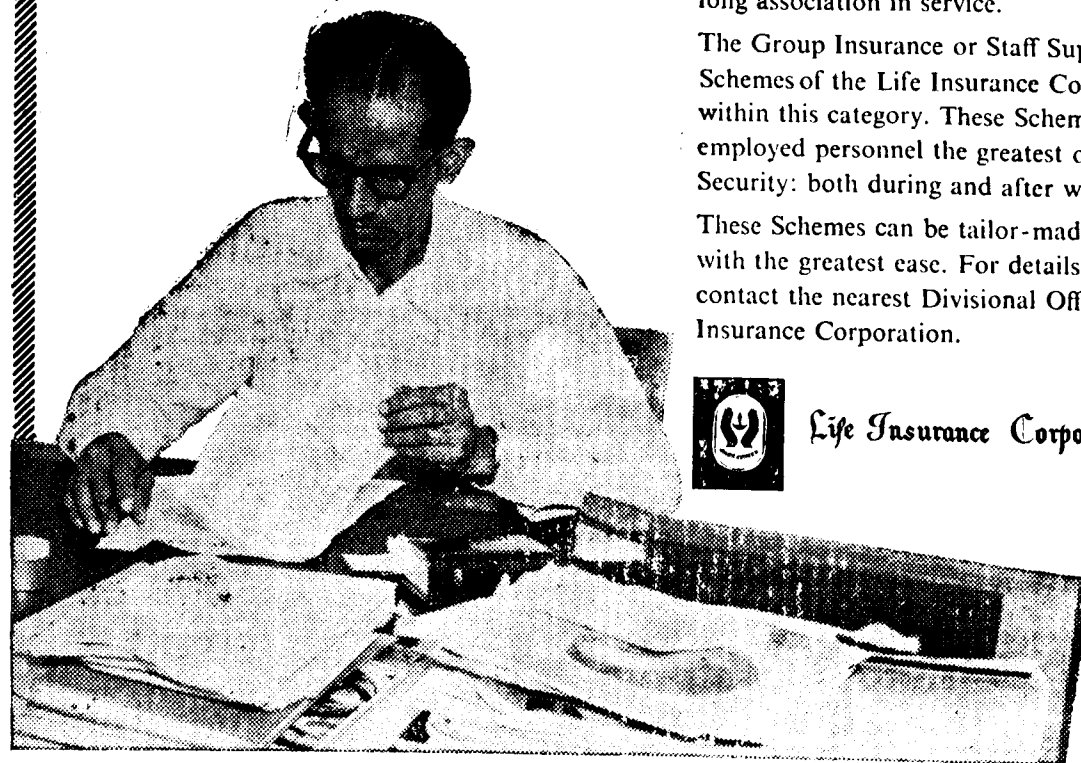
AUTOMATION AND HOURS OF WORK

Let us now turn to the effect of automation on the hours of work and vice versa.

It is normally believed that automation will lead to shortening of working hours. This is based upon many convincing arguments. To some extent, it may be expected that this tendency will arise from the greater productivity in automated firms and from their consequent ability to pay the same or higher wages for a shorter working week. It may also be argued that automation leads to much more of responsibility on the workers and the greater strain of increased responsibility lowers the effectiveness of workers after about 30 hours of work per week, beyond which there may be greater danger of serious mistakes, breakdowns, damage to machinery, etc. Perhaps the most important argument in favour of the shorter working week is the belief that automation will result in technological unemployment. Whether and how far this contention is correct or no, at least it is understandable that trade unionists are likely to push for shorter working hours with a view to avoiding even a chance of severe technological unemployment.

Thus, automation may lead to the shortening of working hours. At the same time, it is equally possible that shorter hours of work,

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in turn, may encourage the adoption of automated processes. How? It is not difficult to imagine that a reduction in the hours of work with no reduction in weekly wages leads to an increase in hourly labour costs, which, in turn, may provide an incentive to carry automation further, since the latter is likely to reduce labour costs by increasing productivity.

It may be noted in passing that there may be a tendency to over-estimate the effects of automation on employment in any particular plant. However, such an analysis, to be fully valid, would have to take account of wider repercussions on employment throughout the economy. For instance, if the cost and price of a particular article produced by an automated process are reduced, but the demand for it is inelastic, it is evident that buyers of that product will spend less on it and thus will be left with more money to spend on other things and this is likely to have a favourable effect on employment opportunities elsewhere.

SOME OTHER EFFECTS OF AUTOMATION

Hitherto, we have been trying to establish a relationship—a sort of interaction, rather—between automation, guaranteed wages and shorter working hours. It has been suggested in some quarters that these three elements may interact to reinforce one another and the

combined effect could be to produce more automation, more wage guarantees and shorter hours than if each of these elements operated independently of the others. It is, however, very unlikely that the cumulative effect of this interaction would take place without causing any disturbance. Let us now try to investigate some of the stresses and tensions that might be caused by this interaction.

As has already been indicated in the foregoing analysis, if hours of work are shortened considerably, labour shortages and rising wage costs may result. (However, such a situation may not arise in India, where there is already plentiful supply of labour.) Such a situation might lead to a fear in the worker's mind that, because of automation, he or his fellow worker will be laid off. He may then accept a collective bargaining strategy to shorten hours in order to divide the job and be willing to give up an individual preference of more income, without shorter hours of work. But this resigned attitude may not last very long. If the adoption of automation does not result in serious unemployment, conflicts may arise between workers who want to maintain shorter hours of work and those who want longer hours and more pay. Different groups may have conflicting views. Women may wish to work for shorter hours, for obvious reasons, and similar

may be the case with the older workers. On the other hand, the younger workers may favour longer hours and more pay since they may have to discharge greater financial obligations.

It is not unlikely that such a situation may lead to an interesting phenomenon. When there is a labour shortage and, at the same time, a considerable number of workers wish to work longer for more pay, there may arise a demand for a more overtime. Many, if not all, of those who wished to do so, could then sacrifice leisure for more income, and what began as a policy of shorter hours of work, would really become an increase in pay for the same working week. In fact, in automated plants, with a strong demand by the workers for over-time work, one source of tension may be the policies adopted for sharing what little overtime is available. Under these circumstances, it is purely logical that when, for some reasons, overtime work is not available, a substantial number of workers may start looking for a second job. This is, it may be noted, not just a theoretical proposition but based upon practical experience of many advanced countries. Automation and shorter hours of work may thus encourage a greater number of workers to have a second job. There would be no doubt about advantages, both individual and social, in the

possibility of having two jobs. For instance, the economic security of the dual job holder would naturally be greater. Also, when it is necessary for the worker to save money rapidly, the dual job may be the easiest way of doing so. Further, some second jobs, particularly those arising in opposition to the monotonous uniformity of automated products, may be culturally revitalising in that they will involve creating products with diversity of style and perhaps with some artistic content.

However, it should not be forgotten that dual job situations, particularly if they persist for a long time, have many of the disadvantages that have always been associated with long hours of work on one job. It is quite natural that dual jobs may undermine health, lower productivity and result in neglect of family and civic responsibilities. Not only that, the dual jobs are likely to be regarded with suspicion by both management and trade unions. The former may not approve of a worker having a full time outside job, since it is evident that such a step is likely to lower the worker's energy and interest in his employment, and may possibly result in divided loyalties. The trade unions, at the same time, may oppose the holding of a dual job because it leaves no time for activity in the union. However, aside from trade unions and man-

agement, there may be a substantial resentment among fellow-workers against the worker with two jobs. It may be felt that, under these circumstances, he cannot do his fair share of the work and that he deprives other workers of a job.

SOME SOCIAL EFFECTS

That automation will have far-reaching social effects, is indisputable. It is bound to affect, among others, employment and labour-management relations. It is now proposed to study these social effects.

EFFECTS ON EMPLOYMENT

As already mentioned, fears have been expressed regarding the impact of automation on employment. In the first place, there is the question of what is likely to be the extent of reduction in employment opportunities in the industries where the trend to automation is accelerated. It has been suggested by one observer that the automobile industry in the USA, which today employs over one million workers, could, when fully automated, achieve the same production with about 15th of that number! Though it is firmly believed that such a development will not occur for many years, yet it is a contingency that must be faced. It is thus natural that

anxiety and fear should be voiced by workers faced with uncertainty regarding their future employment, particularly the less skilled and older workers who, if displaced from the present jobs, have limited possibilities of fitting themselves for or obtaining new employment.

However, the problem of displacement and re-employment of individual workers must not be compared with the impact of automation on the trend of total employment. The general employment situation is dependent on many forces, and automation may become one of these, but there is no reason to suppose that it is likely to become a negative influence in that situation. In fact, every historical indication points in the opposite direction. The growth of new employment opportunities and the continuous redistribution of man-power in relation to these changing opportunities are characteristic of the industrial era. There is no intrinsic reason to associate shifting opportunity with unemployment. But there is every reason to reinforce the measures taken to promote and to achieve full employment in each economy and to continue to make this a dominant aim of public policy.

Even though it is recognised that there are a number of other fac-

tors which may tend to diminish the impact of automation on employment, for instance, the long-term tendency for living levels to rise and thus making a market physically capable of absorbing a greatly increased output of goods and services, it is nevertheless felt that, in spite of these various mitigating factors, there will be labour displacement. And this raises a general social problem which must be met through co-ordinated planning and effective measures to facilitate the individual job changes that become necessary. Hence, much thought needs to be given to finding the most effective means of providing social protection and financial assistance to workers forced to change jobs and of avoiding the individual hardships often associated with periods of rapid and far-reaching technical change.

There is another factor which must not also be ignored. It is increasingly becoming evident that one important consequence of automation will be that there will be a substantial change in the relative numbers of skilled, semi-skilled and unskilled workers. Some existing skills will become obsolete; some may be diluted by a further division of labour; but one thing is clear, and that is that there will be especially a demand for new

skills, usually of a higher order. This naturally means that, while there will be lesser and lesser demand for unskilled workers, increasing opportunities will be open to workers with higher skills and to technicians and engineers. Thus, because of the increased demand for higher degrees of skill for many of the jobs and for greater versatility on the job, training and retraining will need to be developed considerably beyond their present levels. Hence, it is clear that the spread of automation will considerably alter and increase the demand for technological education, more and improved facilities will be needed and their links with industry will have to be strengthened if they are to meet the new skill requirements.

EFFECTS ON LABOUR-MANAGEMENT RELATIONS

Labour-management relations represent another area where automation raises a variety of problems some of which have already been mentioned in earlier contexts.

One consequence of automation, it seems clear, will be a substantial improvement in working conditions and, above all, greater safety. However, new safety problems will arise and appropriate forms of training introduced within

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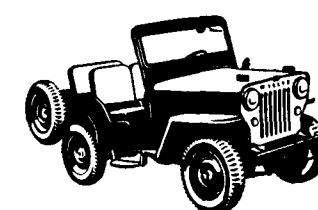
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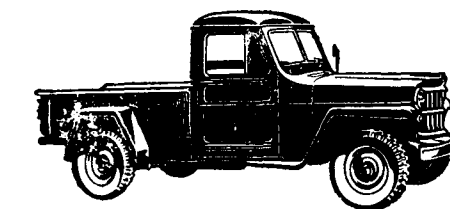
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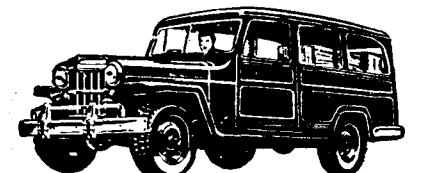
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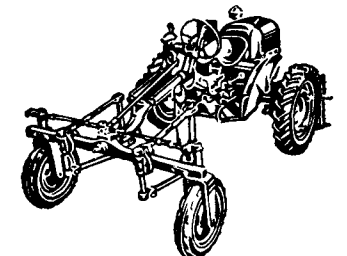
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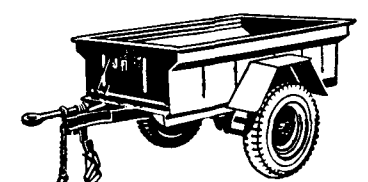
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industry in order to develop the new types of safety consciousness that will be needed to profit fully from the possibilities for greater safety.

It is also predicted that automation will improve working conditions by eliminating much arduous physical labour and much "dirty" work in industry. Automation offers opportunities for cleaner and safer work and also for making the plant environment far more attractive than in the past.

Also, there will be continuing problems of labour-management co-operation arising out of the need for consultation on changes in technology, plant organisation and work assignments. Existing methods and techniques will have to be examined to ensure that they are adequate to bear the heavier burden that will be imposed on them, particularly in meeting the short-term problems of transition. Changes in the organisation and content of work will raise new problems of group and social relationships which will have to be tackled properly.

ECONOMIC ADVANTAGES OF AUTOMATION

Automation is believed to have many economic advantages. It reduces production costs. It also brings about safer working conditions and improved operations which, in turn, lead to higher output and less waste. It has helped in the creation of a new industry, viz., that concerned with the design, manufacture, installation and maintenance of automatic control equipment; and new professions. It also makes for greatly increased productivity of capital equipment and the labour force. In short, automation represents a trend in man's continuing search for the greatest results from the least expenditure of human and material resources.

Automation could be especially beneficial to the under-developed countries, of course, if it were possible to introduce it. It is now established that, in a very large number of cases, the amount of investment required for a given production capacity is less for automation techniques than otherwise. This reduction of capital

needs is due to the fact that, as far as fixed capital is concerned, the proportionate increase in output is considerably greater than that of the cost of equipment. Here is an economic characteristic of the current technical transformation which is of great importance, for, it tends, at least in the short period, to lower considerably the "capital co-efficient" or increase the "investment yield".

The lowering of the needs of capital necessary for a given volume of output in several cases of automation is due, firstly, to the reduced needs of fixed capital, thanks to the considerable growth in the efficiency of the equipments. Besides, they often occupy less space and are less heavy than non-automated equipments, resulting in considerable (sometimes more than 50 per cent) economy of investment in industrial buildings and in the metals consumed in the installation of a given capacity.

It is evident that, whenever these advantages present themselves, it would be seriously erroneous not to resort to automation in new investments under the fallacious pretext that the volume of employment created by these investments is smaller—and sometimes very much smaller—than that created by investments in less modern techniques. One should never forget that the end of rational economic activity is to make possible more production and more consumption and that expansion of employment has to allow the maximum expansion of production but should not be made in a way as to be detrimental to the latter. As a matter of fact, if, in the very first period, the adoption of automation does slow down the expansion of employment, it can definitely contribute, provided that it is utilised in a rational and planned manner, to an enormous acceleration of the process of economic development.

CONCLUDING REMARKS

In this brief review of some of the major technical and human problems of automation that can be discussed, passing reference has been made, in the foregoing paragraphs, to a number of areas of industrial relations and social policy that will undoubtedly feel its impact. However, it is not intended to suggest, here, specific solutions to the problems raised by automation since that is not possible at the present stage. What is urgently needed is a measure of coherent planning, based on consideration of the problems involved and of their implications for social policy, and a sustained sense of responsibility for future developments on the part of industry, labour and Government and of educational bodies and research groups. It may be of some interest to note that measures which have already been suggested, in this regard, refer either to means of protecting workers from un-

employment during job shifts or to means of ensuring that adequate purchasing power is put into the hands of workers, who constitute a sizable sector of the consuming public—in order to ensure the high and rising level of effective demand in the mass of the population necessary to support increased production and productivity. Specific measures include the extension of dismissal compensation; widened opportunities for transfer, upgrading training and promotion; revision of job classification, with appropriate wage increases to take account of greater skills and new responsibilities and to ensure the workers a fair share of the increased productivity of the equipment they control, and a wider application of guaranteed annual wage (as already mentioned) provisions as an essential element of security for the worker and as a stabilising influence in industry.

There is sufficient evidence that automation is beginning to receive the attention it merits. The very fact that there have been a recognition of the need to analyse the problems and to reinforce measures of social protection in certain areas of policy, are two steps forward. Another step in the direction of preparing for the future is the recognition that automation and other technological developments are placing a heavy strain on the labour-management structure and that increased consultation within industry is a necessity.

However, it should be noticed that mere recognition of the problems is not enough. Something must be done to meet the problems ahead and it is probable that attention will centre in the near future on action. Here, there is an evident need for continuing and intensified co-operation on the part of those more directly concerned—co-operation that can only come about through conscious effort and thought about the more far-reaching social implications of automation. And, above all, there is a need to keep automation in its place—that is, as a group of related concepts and technological developments offering great possibilities for the raising of levels of living and welfare—and not to assign to it an inexorable and overriding role to which social policy must be subordinated for many years to come. In the words of F. G. Woollard, an automation expert, "We must always remember that automation is not a device with which to outlaw, displace or dispense with man. It is not a contrivance nor an invention to deprive men of his heritage—his right to work and to enjoy the fruits of his labours.... we must always remember that men were not made for machines, but that machines were made for men. Whatever device or emblem we may adopt to typify automation, the motto must be 'Machines in the service of Man'."

The Bank Rate Technique in India

By C. B. PADMANABHAN

THE Discount Rate policy or Bank Rate technique was the first important method of credit control to be developed and even though it tended to be less significant during the great depression of the 1930's, "Discount Rate changes have been in the forefront of the post war revival of monetary policy. But in their revival, they have lost their former supremacy over other devices of credit control. They are now used in combination with other instruments of Central Banking control which have been recently developed.

Bank rate changes have been resorted to by the Reserve Bank of India twice—once in November 1951 and again in May 1957. Such an infrequent resort to the Bank rate technique, especially when compared with the number in other countries, is a measure of the limited reliance placed on this weapon.

Country.	No. of times B.R. has been changed.
UK	9
USA	10
West Germany	8
Canada	9
Belgium	8
India	2
Japan	3

On both the occasions, concern with undue credit expansion and rise in money supply and the consequent threat of a developing inflation was responsible for the rise in Bank rate. The role of Bank rate as an instrument of monetary policy in the armoury of a Central Bank is examined in the following pages. In particular, the peculiar factors responsible for its limited role as a device for credit control in an under-developed economy like India are reviewed in the light of the past experience.

CIRCUMSTANCES LEADING TO THE ADOPTION OF THE "NEW MONETARY POLICY"

The outbreak of the Korean war in June 1950 and the consequent stock piling programme of the USA brought in its wake an inflationary upsurge in the Indian economy. There was a large expansion of international demand for Indian exports. Between July 1950 and March 1951, there was a surplus in balance of payments which amounted to Rs 70 crores. Consequently, there was a rise in domestic income and an expansionary effect on the Indian economy.

In addition to the external factors, domestic forces also were at work contributing to inflationary pressures.

During the busy season of 1950-51, there was an enormous rise in the demand for funds and, in

the middle of May 1951, advances and discounts by scheduled banks touched the till then unprecedented peak of Rs 586 crores. In an effort to meet the abnormal demand for funds, commercial banks were compelled to liquidate their holdings of Government securities which was their usual method of replenishing cash reserves. As a consequence, there was a steep fall in the prices of securities. The extent of the fall was indicated by the fact that, immediately after the commencement of the busy season in December 1950, the 3% conversion loan was quoted at Rs 93. The Reserve Bank of India entered into the securities market to prevent a further fall in prices. Thus, the open market operations policy of the Reserve Bank of India, coupled with the surplus in balance of payments, contributed to a large increase in money supply.

As a result, the busy season of 1950-51 from October 1950 to mid May 1951 witnessed an expansion in money supply of the order of Rs 236 crores. The slack season in 1951 did not witness the usual contraction in credit mainly because of speculative demand for funds. Consequently, even at the commencement of the 1951-52 busy season in November 1951, the commercial banks were already in an over-extended position.

The monetary authorities were confronted with the following immediate objectives:—

- (1) of bringing down the level of Bank credit and mitigating the inflationary pressures;
- (2) of preventing further expansion in Bank credit; and
- (3) of ensuring that trade and industries were not starved of their legitimate requirements of funds.

Thus, the inauguration of a new monetary policy was a culmination of events which had their origin in the Korean crisis of 1950.

THE NEW MONETARY POLICY OF THE RESERVE BANK OF INDIA

A number of steps were adopted by the Reserve Bank of India in furtherance of the objectives mentioned above. The new monetary policy was announced in November 1951. The contents of the new monetary policy were:—

- (1) The raising of Bank Rate from 2% to 3½% in order to bring about a contraction of credit;
- (2) A new open market policy with a view to preventing further credit expansion. The traditional method of purchasing Government securities from the commercial banks was discarded by the Reserve Bank of India save in exceptional circumstances. Instead, it was announced that advances would be granted against the securities. Commercial banks

were in the habit of meeting their seasonal requirements for funds by the sale of securities to the Reserve Bank of India. In the circumstances which were prevalent at the time under review, further monetisation of public debt would have intensified the expansionary situation. Hence the Reserve Bank of India discarded the traditional practice of purchase of securities.

(3) Lastly, with a view to making the change in Bank Rate effective and in order to ensure that legitimate demands for funds by industry and commerce were met, a bill market scheme was announced.

AN ASSESSMENT OF THE EFFECT OF BANK RATE CHANGE

The restrictive monetary policy was a success in its immediate effects. Between October 1951 and April 1952, bank credit expansion was only Rs 96 crores while in the corresponding period of the previous year, it was Rs 173 crores. The quarterly survey of advances by scheduled banks undertaken by the Reserve Bank of India revealed a striking decline in the volume of commercial advances which indicated a fall in the speculative demand for funds and no fall in the demand for industrial advances.

Moreover, the busy season expansion in money supply was only Rs 84 crores while, in the 1950-51 busy season, it was Rs 236 crores.

An accurate assessment of the role of bank rate in bringing about credit contraction is difficult because the new monetary policy consisted of other measures designed to achieve the same result.

Apart from the difficulty mentioned above, subsequent developments did not conform to the contractionist tendency which has been pointed out. In the 1951-52 busy season, the level of Bank credit touched a peak of Rs 597 crores which was higher than the figure for the corresponding period of the previous busy season. In March 1952, the advances-deposit ratio was 70% in contrast to the figure of 64.8% in the previous busy season.

The major result that followed the adoption of a restrictive policy was the limited credit expansion in the busy season, the amount being only Rs 96 crores. But, besides the new monetary policy, there were certain other factors in the Indian economic situation which might have resulted in a contraction of credit. They were:

- (1) Decline in foreign assets of the Reserve Bank of India: The

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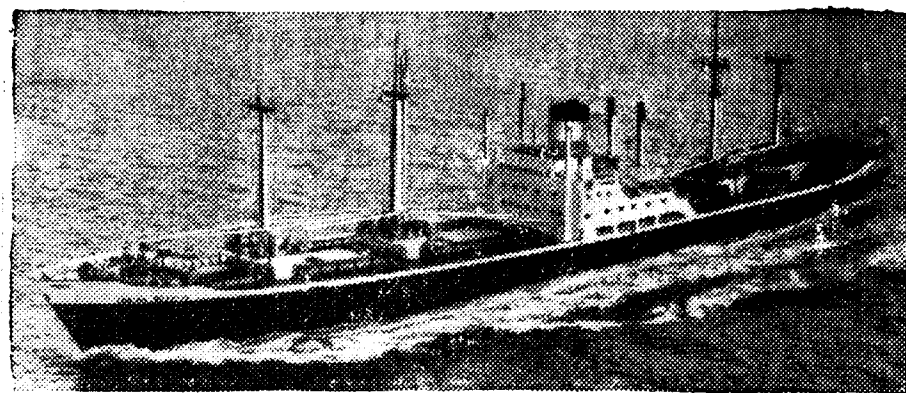
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decline in foreign assets might have had a contractive effect on money supply.

(2) The disinflationary impact of a rise in British Bank rate: The vulnerability of the Indian economy to external factors had been proved very often by events. The price fall in India began from April 1951 when the international demand for Indian exports fell. Similarly, there began a recessionary trend in Indian prices from February 1952 calling for anti-recessionary measures. Therefore, a part of the restriction in credit demand must be attributed to the rise in British Bank rate from 2% to 2½% which took place in November 1951.

Thus, the foregoing analysis points to the predominance of other influences in bringing about a restriction of credit.

CIRCUMSTANCES LEADING TO THE SECOND CHANGE IN BANK RATE

The Bank Rate was raised in May 1957 from 3½% to 4%. Coming as it did, at the close of the 1954-55 busy season it is impossible to conclude correctly the extent to which the credit contraction was due to the rise in Bank rate. The change in the Bank rate in the upward direction was brought about long after the higher rate of interest had come to prevail in the money market. A detailed examination of the situation prevalent at the time suggests the con-

clusion about the limited effect of Bank Rate on the economy.

The Indian economy experienced stability in 1953 and, from 1954, there was a trend of upward expansion mainly due to the rising investment activity in the private sector and the mounting tempo of public expenditure in the latter years of the First Plan. From 1954-55, the busy season expansion went on increasing. In 1954-55, it was Rs 95 crores in 1955-56 it was Rs 166 crores while, in 1956-57, it had reached the level of Rs 170 crores—almost the same as the level touched in the 1950-51 busy season. In May 1958, the level of Bank credit was Rs 932.6 crores. The rise in credit against certain commodities like paddy and rice was particularly disconcerting. Hence, the Reserve Bank of India adopted measures to raise the cost of Central Bank credit. The supplementary budget of November 1956 announced the raising of stamp duty on usance bills, which raised the effective rate of borrowing from Reserve Bank of India to 4%. The device was described by the Finance Minister as a "fiscal measure with a monetary intent". The leading rate against Government securities was raised to 4%. Thus, it would be noticed that the ruling rate of interest at which Reserve Bank of India accommodation would be available was raised to 4% in February 1957 before the Bank rate was raised to 4% in May 1957.

The rise in Bank rate did not have any effect on the level of Bank credit. On the basis of weekly returns submitted to Reserve Bank of India by scheduled banks under section 42(2) of Reserve Bank of India Act, Bank credit including foreign bills touched approximately Rs 940 crores on 7th June 1957, which clearly established the need for additional devices of restriction. Therefore, the monetary authorities had to resort to qualitative devices of credit control which took the form of directives to scheduled banks about the upper limit beyond which credit expansion should not take place. Thus, the Bank rate rise of 1957 had to be supplemented with other qualitative devices and therefore an isolation of the share of bank rate in bringing about the limited amount of credit contraction is not possible.

The advances-deposit ratio in January 1957 was 71.3% which was brought down to 63.3% in December 1957. The adoption of restrictive policies of a quantitative and qualitative nature resulted in a fall in the advances-deposit ratio by 8% only while, in 1956, without any restrictive policies the fall in advances-deposit ratio over the year was 6.6%.

The beginning of 1957 witnessed monetary stringency and, in the first six months, bank credit rose by Rs 135 crores. A heavy programme of import and the consequent dependence of the private sector on bank credit contributed to such a situation. The stringent conditions were reflected in the hardening of short term rates. In the earlier part of the year, the inter-bank call rate fluctuated between 3½ per cent and 3¾ per cent and fixed deposit rates between 3¾ per cent and 4¼ per cent. Therefore, the May 1957 rise in Bank rate resulted in the proper alignment of that rate with other rates which were already prevalent in the economy.

Toward the end of the year, there was a rise in short term rates which could be ascribed to the rise in British Bank rate to 7 per cent in September 1957 and the resultant competition by exchange banks in the domestic money market for funds.

The fall in foreign assets of the Reserve Bank of India must have contributed to the credit contraction at least to some extent. Over the year 1957, the foreign assets of the Reserve Bank of India fell from Rs 528.4 crores to Rs 297.6 crores.

Thus, in the light of the experience of the Reserve Bank of India with bank rate technique on two occasions, the conclusion that Bank Rate change is a very weak device of credit control in India is unavoidable.

THE PRESENT POSITION OF BANK RATE IN ADVANCED ECONOMIES

Even though discount rate changes are in the forefront of the

post war revival of monetary policy, it has lost its pre-eminence and has considerably changed in form. Even in countries with well developed financial systems, it is used in conjunction with other devices of Central Banking control. Thus, in the UK, where the technique was originated and perfected, the rise in Bank rate in 1951 was followed by other measures like the funding of the floating debt. The frequency of Bank rate variations in advanced economies is evidence of the ineffectiveness of the technique to bring about the desired results by itself. The following factors are responsible for the declining importance of Bank rate as a credit control device.

(1) Scepticism regarding the role of interest rates in influencing investment: Such scepticism was the outcome of a survey conducted by a group of Oxford economists in regard to the attitude of business men toward changing interest rates. The interest inelasticity of investment was recognised. Only certain lines of investment like housing and public utilities were influenced by considerations of cost embodied in interest charges.

(2) Changing methods of company financing: On account of higher income-tax rates, business corporations are in the habit of financing investment by ploughing back profits and hence interest rate changes may not have any influence on the private demand for bank credit.

(3) The growth of nationalised industries and other officially controlled ventures has made for the reduced effectiveness of Bank rates on credit demands.

(4) A rise in short term rates need not lead to a rise in long term rates. For instance, it was found that while on the whole long term rates, were affected much more by expectations of future movements in bank rates than by the rate that ruled at the moment. The relationship between price of consols and Bank rate was a subject of enquiry by Professor Hawtrey, and it has been proved that the short-period connection between actual changes in Bank rate and price of consols was quite insignificant.

(5) The declining importance of commercial bills as the device for financing trade has deprived the Central Banks of a medium through which rediscounting policy could be effected and implemented.

(6) A rise in Bank rate has the effect of raising other short term rates. Such a rise in Treasury bill rate implies a large servicing charge on public debt and is not liked by the Treasury.

(7) The large scale liquidity available to the commercial banks because of the abundance of Government paper and the determination of certain central banks to support their prices have up the possibility of money of public debt to the commercial banks. To that extent, dep-

on Central Bank credit is reduced, which in turn reduces the effectiveness of Bank rate.

(8) Lack of sensitiveness of International capital to changing interest rates is another obstacle to the smooth working of Bank Rate technique. To the extent this is true, one of the oldest arguments in support of bank rate changes, namely, the impact of discount rate changes on the international flow of capital and the possibility of equilibrium in international payments, is no longer valid.

BANK RATE IN UNDER-DEVELOPED ECONOMIES

There are some special factors relevant to a consideration of the role of Bank Rate in underdeveloped economies. They are to be attributed to the under-developed nature of the economy. They are: (1) The existence of a sector which is beyond the monetary stream. Such a non-monetised sector cannot be influenced by the Central bank through monetary devices like Bank Rate.

The Indian money market is composed of an organised sector and an unorganised one. While the organised sector consists of the banking system which is susceptible to Central banking control to some extent, the unorganised sector is composed of indigenous bankers and money lenders. Generally, the activities of the unorganised sector fall outside the purview of Central Banking control even though, with the Banking Companies Act, the position is becoming different.

(2) Lack of adequate integration among the different sectors of the Indian money market constitutes a serious impediment to the effectiveness of bank rate. As a result, impulses imparted to one sector of the market may not be transmitted to all sectors.

(3) The predominance of currency over credit; owing to lack of banking habits, only 33 per cent of the total money supply constituted bank money as late as in 1957. Since the influence of bank rate is on bank credit, the predominance of currency sets a serious limitation upon monetary devices.

(4) As a consequence of the predominance of currency over credit, the commercial banks are accustomed to the maintenance of large margins over and above the statutory minimum (Table No. I). The availability of such surplus cash makes for reduced dependence on the Reserve Bank of India (Table No. II). To that extent, the cost of Central Banking credit, namely, Bank Rate loses its significance. Absence of short term assets by rediscounting which Central Bank credit can be made available to commercial banks has been a major impediment standing in the way of an effective bank rate policy. Therefore the attention of the Reserve Bank of India has been directed of late to the creation of a bill market.

(5) The unique position of Government securities in the Indian

money market sets a limitation upon the extent to which and the frequency with which interest rates could be changed. Government securities predominate over other assets like other securities, stocks and shares and commercial bills that circulate in the economy. Therefore, any substantial change in the value of Government paper imposes a much larger strain on the financial system than in countries which have different types of assets.

(6) The susceptibility of the domestic economy to international factors constitutes an obstacle to an effective bank rate technique. The share of International demand in bringing about credit restriction on both the occasions of bank rate changes has been referred to. The presence of exchange banks, which are foreign controlled and which govern themselves to some extent by the prevalent policies in their economies, constitutes yet another disturbing factor.

The foregoing analysis clearly points to the limited role that Bank rate technique can play in controlling credit. The practical experience with Bank rate technique, though limited to two occasions, has brought out the insignificance of the device. Theoretical considerations also suggest very limited possibilities for the success of the technique. In this context, the comments of Reserve Bank of India regarding the failure of the emergence of bill market—an essential pre-requisite for the success of bank rate—are worth noting. They doubt the possibility of the emergence of such a market in the near future and observe "that conditions which favoured the growth of an active bill market in some countries is not likely to be reproduced on a significant scale. Nor is there such innate superiority in the form of credit represented by bills that the lack of a bill market should continue to be regarded as a serious shortcoming and its creation an important objective of policy for the Reserve Bank". (Functions and Working of Reserve Bank of India, page 24).

In the light of this analysis, the claim of Reserve Bank of India that "Bank rate remains a permanent regulator of the market rate structure" is hardly tenable. It is doubtful whether Bank rate technique can be suited to the requirements of an under-developed economy which is bent upon rapid economic development. A programme of planned economic development has been adopted by India which calls for the encouragement of the flow of capital in certain directions and its prevention from others. For instance, the under-developed economies are noted for their tendencies in resorting to unessential lines of investments like fixed assets. Besides, expenditure on capital goods and river valley projects create money income and expand the monetised sector of the economy. A pressure on the demand for essential goods becomes inevitable.

As a result, the purely commercial activities of holding essential commodities for speculative purposes tend to acquire a disproportionate premium and to attract an unduly large share of credit resources. Hence, it is necessary to have a selective device of credit control which will be discriminating in its effects. The great drawback of Bank rate technique in common with other quantitative devices is the general nature of their effects on the economy which is not desirable from the point of view of a developing economy. Therefore, selective credit controls have risen into prominence in recent years.

Moreover, the Bank rate technique is unsuitable to India from another point of view. As the Reserve Bank of India Governor has observed: "The problem in India is not one of just raising or lowering interest rates, it is one of operating an integrated structure of interest rates taking into account the diversified needs of the economy."

All that has so far been said should not be construed to imply that Bank rate is of no significance at all. Changes in Bank rate have the following four-fold significance:

As Burgess observed, "The importance of a change in the discount rate lies principally in its being a public recognition by a group of responsible and well informed people of a change in the credit situation." (N. R. Burgess—The Reserve Banks and the Money Market—11nd Edition p-221).

(1) They reflect the Central Bank's appraisal of economic trends. Such an assessment of the economic trends by an expert body like the Central Bank of a country will be of great help to business decisions.

(2) They provide evidence of official determination to combat inflation or deflation.

(3) They have served to influence together with other monetary policy changes the cost and availability of credit.

Borrowings from Reserve Bank of India by Scheduled Banks.

Year	Table No. II (In crores of Rs)	
	Total borrowings	Total Bank credit
1950	5.7	442.0
1951	4.7	543.7
1952	19.0	535.6
1953	7.8	507.9
1954	15.1	557.8
1955	17.7	621.8
1956	53.2	744.0
1957	57.6	873.7

Year	Table No. III (In crores of Rs)	
	Excess of cash over statutory minimum	
1951	22.9	
1952	18.3	
1953	12.9	
1954	17.1	
1955	14.4	
1956	10.1	
1957	26.5	

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Reserve Fund & Other Reserves	-	-	Rs. 4,04,68,516
Deposits as at 31-12-1958	-	-	Rs. 1,62,34,43,652

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Reform of The Indian Income Tax

Income-tax in its modern form was first introduced in India almost a century ago—in 1860. The first twenty-five years was a period of experiments in the field of direct taxation, varying between income-tax proper and a licence tax on trades and professions. The final form of the tax was settled in 1886 when the first systematic legislation on income-tax was enacted. The Income-tax Act 1886 levied a tax on income accruing or arising to or received by a resident in India, and income accruing to or received by a non-resident through an agent in India. While agricultural income was subject to income-tax in the legislation introduced in 1860, it has been excluded from the scope of income-tax since 1886. The rates of income-tax were very low in the beginning—a happy state of affairs indeed, considering the present-day rates. The existence at the same time of a local rate or land revenue whose incidence was the same or even greater than the income-tax appears to have been the main reason for excluding agricultural income from the scope of the income-tax since 1886. It is worthy of mention that the definition of agricultural income inserted in the Act of 1886, has remained substantially in the same form since then, except for minor changes.

During the last seventy years or so the form and structure of the Indian income-tax have undergone many changes. The changing economic conditions, the need for additional revenues, various pronouncements of the judiciary, and the recommendations of a number of Enquiry Committee have all played their part in shaping the structure of the Income-tax of today. Notable among the latter, i.e. Enquiry Committees which recommended changes in the income-tax law, may be mentioned the Income-tax Enquiry Committee of 1936, the Income-tax Investigation Commission of 1947, and the Taxation Enquiry Commission of 1953. After the Act of 1886, significant changes were introduced in our income-tax by the Acts of 1918, 1922, 1939, 1948 and 1955. The Income-tax Act of 1918 brought under charge receipts of a casual or non-recurrent nature which arose from business or from the exercise of a profession, vocation or occupation, or were by way of addition to the remuneration of an employee; the year of assessment was adopted as the basis in respect of all sources of income; a specific provision was inserted to regulate the admissibility of business deductions; statutory provision was made for the first time for depreciation allowances; the concept of basing liability to tax on the total income of a tax-payer was introduced; a new provision for including dividends received by a shareholder in his total income for the purpose of determining the rate of tax on his other income

was also introduced; the dividends themselves continuing to be exempt from tax in the shareholder's hands; and the procedure of calculating the profits of insurance companies on the basis of the annual average of the surplus disclosed by the actuarial valuations was given statutory recognition. Another important change made by the 1918 Act was that it provided for all appeals to be filed direct before the Commissioner of Income-tax instead of before the Collector. The Income-tax Act of 1922 consolidated the law relating to income-tax and super-tax. It brought to charge for the first time the foreign income of a resident, on the remittance basis, in respect of income accruing and arising outside (British) India under the head 'business'. Whereas under the 1918 Act the year of assessment was the basis in respect of all sources of income, this system was given up in 1922 and the procedure was simplified by basing each year's assessment on the income of the previous year. Rates of depreciation on a straight-line method were laid down statutorily for the first time by rules made under the 1922 Act. A provision was included for the setting-off of a loss from one source against income from other sources in the same year. Provision for credit to the shareholders for the income-tax (but not for the super-tax) paid by the company and for the grossing of the dividends was also included in the 1922 Act. The appellate procedure in regard to income-tax also underwent a thorough change in 1922: the first appeal lay to the Assistant Commissioner; the second appeal to the Commissioner, who could refer points of law to the High Court; and over and above this assesses had the right to approach the High Court for a mandamus, and further right of appeal to the Privy Council. As a result of the recommendations of the Income-tax Enquiry Committee, many changes were made in the Income-tax Act in 1939. The entire income of a resident, whether accruing in (British) India or outside became chargeable to tax. The written down value method of depreciation was substituted for the straight-line method. Carry forward of unabsorbed business losses for a period of six years was permitted with the condition that the carried forward loss could be set off only against the profits of the same business. Whereas prior to 1939 income-tax was being levied at step rates and super-tax at slab rates, a change-over for income-tax from the step system to the slab system was introduced in 1929, a tax-free slice of Rs 1500/- followed by progressively increasing rates of income-tax and super-tax on successive slabs of income was introduced. Non-resident British

subjects and subjects of Indian States were to be taxed at the rates applicable to their total world incomes, and other non-residents were to be charged to income-tax at the maximum rates and to super-tax at the rates appropriate to their total world income. A change was made in the method of taxing companies in that the exemption of the first Rs 50,000/- of the income was given up and they were made liable to super-tax on every rupee of their income in the same way as for income-tax. A modification in the method of taxing dividends in the assessment of shareholders was also made, the gross dividends were made taxable in the hands of the shareholder at the rate applicable to his personal income, while at the same time he was allowed a credit in his assessment equal to the proportionate income-tax paid by the company on such dividends. The appellate machinery was completely changed in 1939: a separate cadre of Appellate Assistant Commissioners was created; the function of hearing second appeals was transferred from the Commissioner to a newly created authority, the income-tax Appellate Tribunal, whose decisions were final on all questions of fact.

Subsequent to 1939, during the last twenty years the Income-tax Act has been amended almost every year by provisions included

in the annual Finance Acts. Over and above this there have also been adhoc amendments to the Act effected by separate enactments. The time appears to be ripe therefore for a complete overhaul of the Indian Income-tax Act. Sometime ago there were reports in the Press to the effect that the Law Commission have undertaken a review of the Act with a view to place in clearer language such of the provisions of the Act in respect of which there had been difficulties of interpretation, and also with a view to remove anomalies. More recently, a Committee under the Chairmanship of Shri Mahavir Tyagi has been examining the provisions of the statutes relating to all the direct taxes in India with a view to integrate them and improve the efficiency of their administration. The present time therefore offers a good opportunity to undertake a thorough reform of our income-tax especially as the country is committed to a course of planned development under a series of five-year plans, with whose objectives our income-tax system has necessarily to be in harmony. It is against this background that the various suggestions made in the following paragraphs are set out.

Before proceeding to state the various reforms suggested, it is necessary to mention an important fact. If the five year plans are to

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succeed it is necessary that there should be some stability in regard to all matters of direct taxation. Otherwise it will not be possible for entrepreneurs and investors alike to launch upon their ventures with any degree of certainty, since the tax element is a most important factor in determining the worthwhileness of venturing on an enterprise or the profitability of making an investment. It is therefore of paramount importance that our income-tax should not undergo frequent changes; it must be reformed now and stay that way for the next, say, fifteen years at the least. Only by this means can our Plans be ensured of success.

The first and most important reform to be effected is to include a suitable provisions in the Income-tax Act so as to eliminate the deterrent effect on investment arising from the multiplicity of direct taxes now in force. We have now in India besides the income-tax, the capital gains tax, the wealth tax, the expenditure tax, the gifts tax and the estate duty. It has been estimated that in the higher income brackets income-tax and wealth tax alone take away more than the entirety of the income. For instance, if a person has property worth rupees thirty lakhs, his income from it will be about rupees one and a quarter lakhs, on which he will be paying income-tax (and super-tax) of almost eighty thousand rupees. And on the property he will have to

pay wealth tax of forty-one thousand rupees. Together these two taxes take away 97 to 98 per cent of the income. So to meet his living expenses he will have to disinvest. Such being the case, there can be no question of any investments being made by him in shares and debentures of companies. On the one hand five year plans are being formulated to industrialise the country rapidly which postulates the formation of many new industrial concerns as well as the expansion of concerns already in existence. This in turn presupposes that money will be left with individuals to enable them to subscribe to the capital of such industrial projects. On the other hand the tax policy of Government is such that that section of the people who may reasonably expect to have a surplus from out of their large incomes (which surplus would have flown into investment channels) are subjected to such regressive taxation that they not only don't have a surplus to invest but have actually to sell away a part of their capital assets in order to pay the taxes. There is thus an illogical conflict between the tax policy and the five year plans. To remove this anomaly it is necessary to statutorily fix a ceiling to the total amount that an individual will be called upon to pay by way of the direct taxes, and the ceiling should be fixed at such a figure that the individual is left with a surplus (after paying all the direct

taxes) from out of which he can meet his living expenses and still have a balance to invest. In West Germany the highest marginal rate of income-tax is kept so low that the combined rate of income-tax and wealth tax is only about seventy per cent where the income is about ten lakhs a year and only twenty per cent of it is earned. The corresponding figure for the Netherlands is about seventy-seven per cent. In Sweden eighty per cent of the income is statutorily prescribed as the maximum limit for the combined burden of the income-tax and the wealth tax. There is a similar provision in Norway also. The first reform suggested therefore is that a specific provision should be included in the Indian Income-tax Act (income-tax being the most important among the direct taxes in India) to the effect that where, in addition to the income-tax, an assessee is paying any other direct tax or taxes, the maximum income-tax payable by him shall not exceed the difference between a prescribed percentage (say 80%) of his income and the aggregate of the other direct taxes paid by him. This is a much needed provision.

The inclusion of a provision like the above will leave with the persons concerned a capacity to invest. It will be necessary to adopt a further measure whereby the surplus left in the hands of the assessee as a result of this relief is induced to flow into

investment channels. If the statute could provide that an amount invested by an assessee in company shares and debentures will be excluded in computing his taxable income subject to some prescribed limit, it will act as a great incentive for making such investments. There used to be such a provision in the Pakistan Income-tax law not so long ago. But perhaps this may be expecting too much. A less liberal, but at the same time one whose effect as an incentive to investment cannot be gainsaid, provision would be to subject the income arising from such investment to concessional rates of tax. The specific suggestion here is that income received by way of dividend from company shares or interest on company debentures be treated as earned income. Differentiation between the treatment of earned and unearned income for income-tax purposes was first introduced in India in 1945, and has been continued ever since, though not in its original form. As it now stands, unearned incomes are liable to a special surcharge of fifteen per cent of income-tax and super-tax, while the surcharge on earned incomes is only five per cent. Dividends from company shares and interest on company debentures are now treated as earned income and therefore subject to the higher surcharge. It should not be difficult to treat at least the dividends received from company shares as

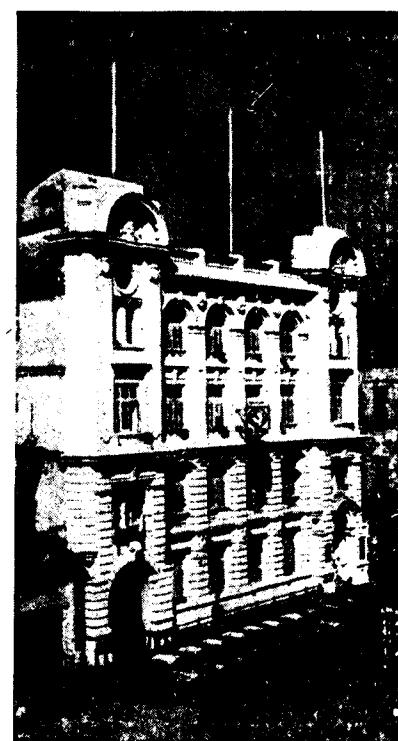
earned income. Such a provision will immediately have the effect of inducing savings to be invested in company shares, and this in turn is bound to facilitate industrial expansion. It would be pertinent to mention here that Government is in a position to offer, and does offer, inducements to investment in Government securities by the issue of securities the interest whereon is tax-free. Private enterprise is in no position to offer any such inducement (except where the particular concern chooses itself to pay the tax). Subjecting dividend income to the lower rate of surcharge will therefore be a sort of making amends for this shortcoming of private enterprise. This however is only by the way. The main point is that the treatment of dividends as earned income for income-tax purposes is a necessary reform for the purpose of reducing the investment of savings in company shares, and would be in keeping with the objective of the five year plans, i.e. the objective of rapid industrialisation.

Prior to 1955, perquisites in addition to or in lieu of any salary or wages were taxable, but under the Explanation to Section 7(1) of the Income-tax Act, it was only the right of a person to occupy as a place of residence any premises provided by the employer free of rent that was specifically defined as a perquisite. Courts have held that a receipt in order to be tax-

able should be in money or money's worth. In the leading English case of Tennant Vs. Smith (3 Tax Cases 158) the Court held that an advantage acquired may be considered the equivalent of money's worth only if the circumstances are such that it is capable of being disposed of by the person receiving it. The Indian Income-tax Act provides in Section 4 that any special allowance, benefit or perquisite specifically granted to meet expenses wholly and necessarily incurred in the performance of the duties of an office or employment of profit will be non-taxable. Consequently upon all this, prior to 1955, except for the value of rent-free quarters, all other benefits in kind were exempt from taxation. The Taxation Enquiry Commission of 1953 observed that the receipt of perquisites means increase in disposable income indirectly, and they recommended that the full value of any benefit granted to an employee by his employer should be treated as taxable income in the hands of the employee. This was implemented by the Finance Act of 1955 which brought all benefits in kind under charge, but at the same time, in order to remove hardship on lower income groups, provided that the value of such benefits in kind will not be taken into account unless the emoluments received in cash by the employee exceeded Rs 18,000/- per year. Rent-free quarters provided by an employer, insurance premium paid by an employer on

a policy taken for the benefit of an employee, amount spent by an employer on the education of his employee's children, provident fund contributions in excess of ten per cent of the employee's salary are all treated as taxable perquisites. Provision of medical facilities to the employee or his family free of charge, re-imbursement of such medical expenses after they are incurred, provision of refreshment during office hours in office premises, provision of recreation facilities to groups of employees, and payment by the employer of the wages of a gardener and other servants employed for the proper upkeep of the house belonging to the employer which is in the occupation of the employee, are all treated as non-taxable. The taxation of perquisites, however equitable it may appear to be, has to be viewed from the point of view of the repercussions it will have on the availability of foreign personnel for service in India. For the successful execution of the various projects of industrialisation under the five year plans the country needs badly the services of skilled technical persons from abroad. Foreign technicians are in short supply and are very much in demand in other countries besides India. Naturally they would prefer to go to countries where the tax conditions are more favourable to them. If they are to come to India, their net income remaining after payment of taxes should be substantially greater than what it would be in their home

countries. It is therefore essential that perquisites should not be taxed. It has also to be mentioned here that as between Government servants and employees in private enterprise, there is a discrimination in the assessment to income-tax of two items of perquisites. Gratuity received at the time of retirement by any employee in the private sector is treated as a perquisite and taxed accordingly. But gratuity received by employees of the Central Government, or any State Government, or any local authority or corporation established by Government Act, is exempt from taxation. Again, entertainment allowance subject to a limit of one-fifth of the salary or Rs 7,500/- whichever is less, provided the employee was in receipt of such allowance regularly from his present employer before 1st April 1955 is to be deducted in computing the taxable salary, so far as employees in private service are concerned. If an employee leaves the service of his present employer, no deduction will be permitted on account of any entertainment allowance received from the new employer. So far as Government servants are concerned however, even if they were not in receipt of an entertainment allowance before 1st April 1955, a deduction equal to one-fifth of the salary or Rs 5,000/- whichever is less will be allowed. One fails to understand why there should be such discrimination as between Government servants and private employees in regard to gratuity and entertainment allo-



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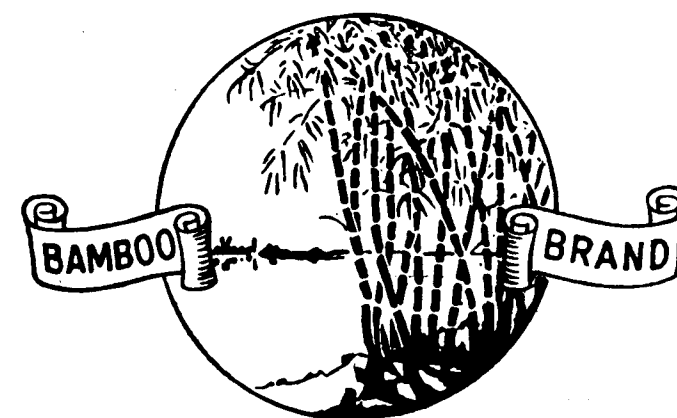
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wance. There is really no justification for this discriminatory treatment, and, while reforming the income-tax, it would be graceful to remove this discrimination. Entertainment allowance and gratuity payment are necessary elements in the employment of foreign personnel, and hence there is all the more reason why this reform should be taken on hand.

There is a further reform which is also called for in the taxation of salary income. During recent years the fixed income groups have been the most to suffer as a result of the ever increasing costs of living. They can't cut down their standards: appearances have to be kept up, however hard the living conditions. At the same time, they are the ones whose income-tax is never in arrears: for, the tax is deducted at source at the time of payment of the salary. The tax is thus easily collected and there are no assessment difficulties. Considering all this, some relief to the fixed income groups has become imperative. It is therefore suggested that in the rate structure of income-tax, a slightly lower rate may be prescribed for salary incomes. Whether such a concession may be extended to

super-tax also is a matter for consideration. It should be possible however to extend this concession to incomes under the head 'Interest on Securities', since here also the tax is deducted at source, and so easily collected, and there are further, no assessment difficulties.

We now come to the assessment of 'Property Income'. Under the Income-tax Act, income from property is a notional figure based on the bona fide annual value of the house property; the annual value is determined with reference to the rental which the house might reasonably expect to fetch annually. From this figure certain deductions are allowed, and the balance is taken as the taxable income under this head. It is in regard to these deductions that certain reforms are necessary. The main items of deduction now permitted are:—(a) an allowance for repairs equal to one-sixth of the annual value, whether the repairs have been actually carried out or not; (b) actual expenses incurred over the collection of rent, subject to a maximum of six per cent of annual value; (c) one half of the municipal or local taxes on the property (this being

deemed to be the tenants' share and therefore deductible where the landlord has paid it); (d) Interest on any mortgages to which the property is subject; (e) where the property is insured, the amount of the insurance premium; and (f) a vacancy remission where the property has remained vacant during any part of the assessment period. The first point to note is that among the items of deduction there is a significant omission in that there is no provision for making any deduction on account of the depreciation of the building. Through the years, any building, residential buildings the more so, are bound to decay, and hence from out of the income from the building a certain portion should be allowed to be set apart by way of depreciation so that after a certain period of years there may be a fund with which to erect the building afresh. One can readily see that many of the buildings in the country are already old and need renovation in a considerable way. It is the absence of a fund such as the one suggested that has been responsible for new buildings not coming in to take their places. To quote the

words of Sir William Carrington at the autumn meeting of the Institute of Chartered Accountants held in London in October 1958: "It is a matter for regret that there is still no depreciation allowance for commercial buildings other than factories. That such buildings do depreciate is obvious enough; one has only to look, for instance, at some of the Oxford Colleges or even Somerset House itself to see that the most solid of buildings do not last for ever. Moreover rising standards of accommodation and changes of fashion make buildings such as shops and hotels subject to obsolescence in a very big way. The depreciation in value of a building as such is sometimes masked by a rise in the value of the site. This usually represents a fall in the value of money and on occasion other changes, such as shift in population or the esteem in which a particular locality is regarded by the general public or the business community. These facts should not be allowed however, to obscure the general principle that allowances should be given for the depreciation in value of assets which wear out or are consumed in the earning of taxable profits." These observa-

tions made in respect of commercial buildings apply with equal force to residential buildings also. The life of an average residential building may be taken as somewhere around thirty years, and on this basis a suitable annual deduction should be allowed from rental income in order to build up a depreciation fund. Housing being one of the important objectives of our five year plans, the suggestion made above is one for urgent implementation.

The ceiling of one-sixth of bona fide annual value which is fixed for the allowance for repairs can no longer be deemed to be realistic. Prices of building materials are no longer what they were at the time when this ceiling was fixed. Bricks, cement, wood, steel, glass today these are all three to four times costlier than before. Masons, carpenters and other artisans have also to be paid wages which are now three to four times what they were a few years ago. Rents however have not gone up correspondingly: for, due to the rent control legislation rents have been pegged down within very restricted limits. Therefore repairs in terms of percentage of the rental income have become definitely costlier. Hence, it has become necessary to provide that the expenditure incurred over repairs should be allowed as a deduction, without any limit. Otherwise, the reluctance of landlords to keep their buildings in proper state of repair, will continue, and the buildings will decay, and there being no depreciation also there will be nothing to come in the place of the old buildings.

Wages and salaries having risen, it is also necessary to provide that actual expenditure incurred over collection of rents will be allowed, in full instead of only up to six per cent of the rental income as at present.

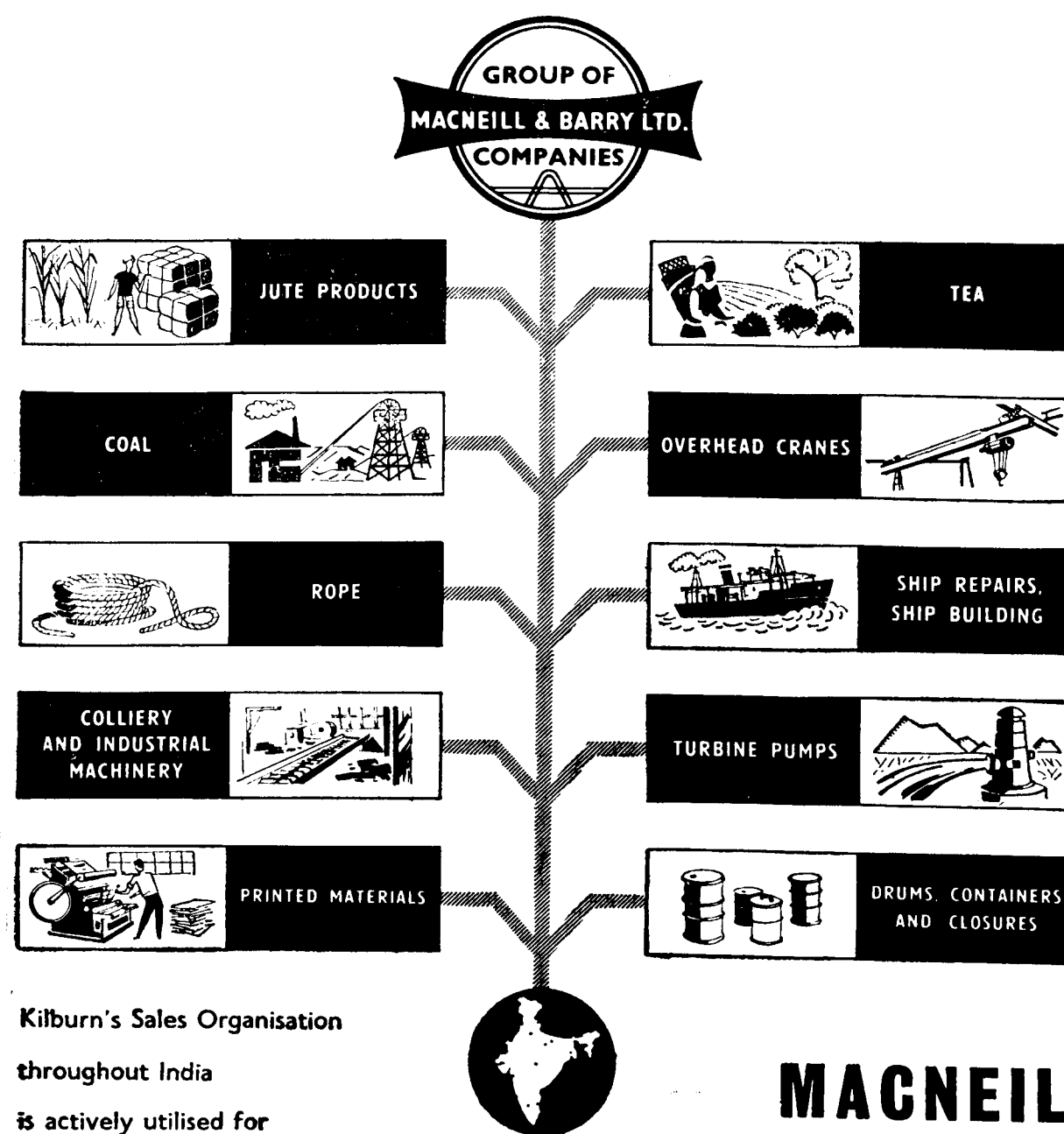
Not many new buildings have come into existence of late. The housing situation in the country is such that there is need for the construction of any number of new houses. This has also been recognised by the five year plans. Therefore it is necessary that some fillip should be given to building activity. Not so long ago, there was a provision in the Income-tax Act whereby, the rental income from new buildings was exempt from tax for the first two years. In 1956 this concession has been allowed to lapse. When the need for several millions of new houses is recognised, it appears to be illogical to withdraw this concession. It is suggested that for a period of, say next fifteen years, this concession should be allowed to continue. It will encourage investment in building construction and at once relieve the housing shortage in the country.

So much for 'Property Income'. To turn now to 'Business Income', there are four matters relating to the computation of 'Business Income' that need reform. These are:—(i) development rebate; (ii) depreciation; (iii) treatment

of bad debts; and (iv) treatment of losses. The development rebate is a comparatively new kind of relief given on the basis of recommendations made by the Taxation Enquiry Commission of 1953. It is admissible only in respect of new machinery or plant 'installed' after 31st March 1954. The rebate which is at the rate of 25% of the actual cost is admissible for the year of installation only: but in case the profits of the year are not sufficient to absorb it, it can be carried forward up to eight years. In computing that the total allowance by way of depreciation shall not exceed the original cost of the asset, the development rebate will not be taken into account. In the case of ships acquired after 31st December 1957

the rate of the development rebate is 40% of the cost. In the case of ships launched or machinery and plant installed after 31st December 1957 the grant of the development rebate is made subject to two conditions, viz. (i) that 75% of the allowance is debited to the profit and loss account by corresponding credit to reserve account and the allowance is not utilised by the assessee for distribution of dividends or remittance abroad for a period of ten years; and (ii) that the asset is not sold or otherwise transferred during the said period except to Government. This latter condition is likely to give rise to difficulties. It is well known that technological advancement is taking place rapidly during recent

times in respect of capital goods. And if Indian industrial concerns are compelled to stick to their machinery for a period of ten years from the date of purchase, it may result in the industries functioning with machinery which have already become obsolete. It is therefore necessary that this condition of not selling the machinery or plant within ten years should be omitted from the statute. Again, the development rebate is allowed in respect of 'new machinery'. As there have sometimes been difficulties in obtaining capital goods from abroad it has been found advantageous in some cases to purchase from foreign countries used machinery. Such machinery has also the advantage of being cheaper thus



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involving less expenditure of foreign exchange. The development rebate should be allowed in such cases also. The statute should therefore provide that 'new machinery' for the purposes of the development rebate means machinery not used in this country before. A further point in respect of development rebate is that it is allowed in respect of new machinery 'installed' after 31st March 1954. Assessing officers have been prone to interpret the expression 'installed' to mean 'fixed to the earth'. There have been some judgments of the Bombay High Court to the effect that the development rebate will be allowable in respect of motor cars, type-writers, office appliances, accounting machines, etc. Clearly machinery like portable air-compressors, portable welding machines, movable cranes, earth-moving machinery etc., should all be entitled to the benefit of the development rebate, otherwise it would be an unjustifiable denial of the rebate on what may be described as being over-technical grounds. The Statute should therefore provide that the development rebate will be allowed in respect of all items of machinery and plant brought into use for the first time (in India) after 31st March 1954.

As regards depreciation allowances, it has to be conceded that the rates of depreciation allowed under the Indian Income-tax Rules are indeed quite reasonable. The Rules provide that the depre-

ciation allowance shall be calculated in terms of the months of use; this calls for needless and voluminous clerical work. A full year's depreciation should be allowed irrespective of when the machinery was installed during the relevant year. Up to 1958-59, an additional depreciation equal to the normal depreciation (single shift) was allowed in respect of new buildings, machinery or plant installed after 31st March 1948, for the first five years falling within 31st March 1959. This extra depreciation was an incentive for investment in new machinery for our industries. The need for investment in new machinery for our industries is there even today; and apparently, this state of affairs may be expected to continue for another fifteen to twenty years until the country gets fully industrialised. Therefore the statutory provision for additional depreciation, which has been allowed to lapse with 31st March 1959, should be continued.

The procedure now being followed by assessing officers in regard to bad debts has caused much hardship to assesses: this has also been pointed out by the Bombay High Court in the course of several judgments. When the assessee decides that a debt due has become bad and writes it off in the books, and claims it as a deduction, it is disallowed where the Officer feels it may still be recoverable. Then, after the debt becomes irrecoverable by operation of law, the assessee is not

allowed to deduct it, this time on the ground that the debt was not written off in the books in that particular year. This is clearly inequitable. The judgment of the assessee as to whether a debt is to be treated as recoverable or not is based on his own experience of the transaction, and as against that the judgment of the assessing officer is merely arbitrary. Therefore it is necessary that the statute should lay down in no uncertain terms as to the circumstances under which a debt may be treated as bad.

When a loss is incurred under any head of income the assessee has the right to set it off against the income under any other head in the same year. If the loss is one arising under 'Business Income', and if the entire loss is not absorbed during the first year the assessee has the right to carry forward the loss. Formerly the carry forward of the loss was restricted to six years; but, in 1955, pursuant to the recommendations of the Taxation Enquiry Commission, the loss was permitted to be carried forward indefinitely. The Finance Act 1957 however, re-introduced the time restriction, but enhanced it to eight years. There have been no special circumstances warranting the curtailment of the right to carry forward losses for an indefinite period. It is not as if there have been any glaring instances of misuse of this concession. If Income-tax is not to fall on capital then entire loss arising should be absorbed by the income of the sub-

sequent years, and the fixation of any time-limit is arbitrary. No administrative difficulties are involved in allowing losses to be carried forward for an indefinite period: it has been so found by the Taxation Enquiry Commission. Therefore the statute should remove the time limit and allow unabsorbed losses to be carried forward for an indefinite period i.e. until they are fully absorbed.

So far we have been dealing with the reforms required in respect of the various heads of income. We may now proceed to deal with the reform of the taxation of corporate incomes. It is a matter of gratification that in the course of the 1959-60 Budget the Finance Minister announced proposals for simplification of company taxation. Outlining the main points of his scheme to change the system of taxation of company profits, the Finance Minister said: "The legal fiction of deeming the income-tax paid by the company as having been paid by the shareholder and the complicated process of grossing the dividends received by the latter will be abolished. The overall tax rates hitherto applicable to Indian companies will be so fixed that the yield will be equal to the present annual gross yield less the annual credit now given to the shareholders. The tax liability of the shareholder will no longer be related to the tax borne by the companies. So far as the shareholders are concerned companies will deduct tax at a prescribed flat rate and credit it to Government. This tax will be

re-imbursed to the shareholders at the time of their assessment, as is done to-day in the case of interest on Government securities". The Finance Minister announced also the abolition of the wealth-tax on companies and the excess dividends tax (with effect from 1960) as part of his scheme of simplification of company taxation. He said that he proposed to combine in the income-tax and super-tax rates of companies, the net incidence of the present taxes on income, excess dividends and wealth. For advance payment of tax by companies under the Income Tax Act, he proposed a rate of 20% for income-tax and 25% for super-tax, that is to say, a total of 45%. And he said that this rate would secure the same revenue as was at present derived from the taxes on the wealth and profits of companies. An analysis of the accounts of a representative cross-section of joint stock companies, however, shows that for maintaining the status quo in regard to net incidence, the tax rate need be only 40% and in any event not more than 43%. One of the considerations in fixing the rate is that it should not compare unfavourably with the rate prevailing in other under-developed countries seeking the assistance of foreign capital. We need foreign capital now, more than ever, for carrying out the five year plans, and so our company taxation rate should be such as to attract foreign capital to our

country. The provisions of Section 56A of the Act, which grant exemption from super-tax in respect of inter-corporate dividends (and therefore make the effective rate 20%) offer only a limited attraction since they apply only to some specified industries, and further are restricted to inter-corporate dividends, i.e. they do not apply to cases of foreigners participating directly in the capital of Indian companies. A recent study of the International Chamber of Commerce shows that several under-developed countries in South America, Africa and South-East Asia have the company rate of taxation at between 20% and 40%. So, it is of great importance that the company rate of taxation in India should be fixed at not more than 40%.

Another essential reform in regard to company taxation is that the present provisions relating to the taxation of bonus shares should be dropped. The Royal Commission on the Taxation of Profits and Income in U.K. observed that in the issue of bonus shares no benefit accrues to the shareholders in the nature of income. The Taxation Enquiry Commission of 1953 also recommended that no tax should be levied in respect of bonus shares. It may be pointed out here that by the issue of bonus shares, the extent of any shareholder's ownership in the company's assets does not change: it merely involves transfers from the reserve account to

the capital account. The dropping of the provisions relating to the taxation of bonus issues is therefore a logical step in the reform of company taxation.

Another much needed reform in regard to company taxation relates to Section 15C of the Act which allows certain concessions in the taxation of the profits of newly established industrial undertakings. Under that section, profits up to six per cent of the capital employed of new industrial undertakings which begin to produce or manufacture goods in any part of India within thirteen years from 1st April 1948, are exempted from payment of both income-tax and super-tax, (subject to some conditions, which we need not go into for the purposes of the present article). And where the industrial concern is a limited company the above exemption is extended also to the dividends paid out of the profits of the company, but limited to that portion of the dividend which is attributable to the exempted income of the company. The exemption is limited to the first five years, and this time-limit has rendered the benefit ineffective. The main reason for the ineffectiveness of Section 15C is that the depreciation allowances aggregate to 80 to 85 per cent of the cost of the assets within the first five years; and as these allowances have to be deducted first before computing profits for purposes of income-tax, it has been difficult for any

appreciable number of new concerns to claim the benefits conferred under Section 15C, which have thus become illusory. The Taxation Enquiry Commission recognised that the principle embodied in Section 15C can constitute a powerful incentive for the formation of new industrial concerns provided it does not lead to some actual exemption from tax of profits. In order that the exemption conferred by Section 15C may be real and effective, it is necessary to allow the unabsorbed benefit to be carried forward and claimed in later years (after the first five years). This is an essential item of reform in company taxation.

A sad experiment in corporate taxation was the current profits deposit scheme introduced in November 1956. Government's experience in the administration of the deposit scheme showed that in actual practice the bulk of the financial resources of companies are in fact being utilised in approved directions; and since 1955-59 the scheme has been in abeyance. It is necessary that sub-sections 2B and 2C in Section 10 of the Income-tax Act, which relate to the compulsory deposit scheme, should be altogether omitted from the Act.

Investment companies are an important source of capital supply to the private sector. Section 23A of the Act however requires investment companies to distribute a minimum of 90% of their profits. If investment companies are allowed to plough back their profits,

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to that extent the source of capital supply to private enterprise will become more fruitful. The minimum distribution prescribed by Section 23A for industrial concerns is 50%. It is suggested that the minimum distribution be fixed at 50% for investment companies also.

A person's ability to pay income-tax does not depend on the quantum of his income alone. It is also limited by his obligations in respect of supporting a family. A system of family allowances should therefore be a necessary feature of any properly devised structure of income-tax. The absence of a system of family allowances has been a great drawback of our income-tax system until recently. The Taxation Enquiry Commission of 1953 observed: "In this regard, our income-tax system is almost alone among the income-tax systems of the major countries of the world in not having any degree of differentiation of tax liability according to the differences in family obligations and circumstances of the tax-payer." They recommended that steps should immediately be taken to introduce an appropriate scheme of family allowances within three years, and that to begin with the tax-exempt slice of Rs 1500/- may be increased to Rs 2,000/- for married assesseees and reduced to Rs 1000/- for unmarried persons. This has since been implemented. And a further allowance of Rs 300/- for each child up to a maximum of two children has also been given. These reliefs however are wholly inadequate.

In the United States, the United Kingdom and other countries there are liberal allowances for children, children's education, for dependents, and for old age. Seeing that the personal income-tax rates in India are very high, and seeing further that our Income-tax Law has incorporated several of the stringent provisions of the Income-tax Laws of the U. S. A., the U. K., and other countries, it is necessary that comparable reliefs given in those laws should also be introduced in our income-tax system. In the United Kingdom, for instance, eighty-five pounds are allowed as a deduction in respect of each child under sixteen, a similar sum in respect of each child above that age who is a student, sixty pounds in respect of each dependent relation of the assessee or his wife, and these are all in addition to an old age allowance of two-ninths of the earned income. The allowances in the United States are even more liberal. Six hundred dollars are allowed as deduction for each child under nineteen, a similar sum for each child over nineteen who is a student, a further similar sum for each dependent of the assessee or any member of his family, a similar sum as old age allowance where the assessee or his wife has attained the age of sixty-five, and a further similar sum where the assessee or his spouse is blind. Medical expenses within certain limits incurred for the medical or dental treatment of the assessee, his wife, or his de-

pendents are also allowed. Such liberal allowances obtain also in several other countries besides the United Kingdom and the United States. It is necessary that the present family allowances in India should be greatly liberalised from what they are now. If the system is to be logical, the allowances should be extended to dependents also. Further, as the average family is everywhere taken as consisting of five members, the children's allowance should be extended to cover, if not all children, at least three children. The quantum of the allowance, which is only Rs 300/- per child now, is very low and should be doubled if not trebled, and extended to dependents also. If these suggestions are implemented it will give much-needed relief to the fixed income groups who have been the most to suffer under the present heavy taxation.

Some procedural matters which need reform, may be mentioned, before bringing this article to a conclusion. Some points in regard to assessment procedure may be mentioned first in this connection. As is well-known, there is considerable delay in the making of assessments. Cases are not taken up until almost the time-bar is reached. Loss cases are also postponed to the very last minute. When an assessee claims that a refund will be due to him on the basis of the return submitted by him, that also is not taken up for speedy disposal. While it is true that the Officers are over-

worked and there is need for increase in the strength of Officers as also lower staff, this alone is not the reason for the above complaints. The deduction of tax at source in respect of salaries and interest on securities, and system of PAYE in respect of other heads of income, ensure that a substantial part of the tax is already collected. If such collection were not there, there would be a departmental urge to complete as many assessments as possible and collect the tax. It would however be too much to expect abandonment of the provisions in the Act in regard to deduction of tax at source and the system of advance payment. These moreover are universal features in Income-tax systems the world over. So the remedy for the difficulties mentioned above should be sought elsewhere. Many years ago, the Act required assessments to be completed within one year. Later, this period was extended to two years, and subsequently to four years. It is this knowledge of the availability of a four period for completing the assessment that has rendered it possible to keep the assessments pending. Therefore, it is suggested that the Act be amended laying it down as a condition that the assessment shall be completed within, say, two years from the close of the 'previous year'. This will have a healthy effect for the expeditious disposal of cases.

The way the Inspecting Assistant Commissioners function at present is somewhat prejudicial to assesseees. The Inspecting Assistant

Commissioners practically guide the Income-tax Officers in cases of importance. While this is certainly helpful, it has to be mentioned that the instructions that they give to the officers are, so to say, given behind the back of the assesseees, which is not in keeping with principles of natural justice. If any instruction given by the Inspecting Assistant Commissioner is prejudicial to the assessee, it is done without giving an opportunity to the assessee to present his case. So the Act should provide that the Inspecting Assistant Commissioner shall not pass any prejudicial order against an assessee, without first hearing him. It would be pertinent to mention here that the Income-tax Investigation Commission recommended that in difficult cases the assessment may be done by the Inspecting Assistant Commissioner himself. Also, that in all cases where the Income-tax Officer seeks the advice of the Inspecting Assistant Commissioner, the latter should give an opportunity to the assessee to place his point of view before him, and after hearing him, if he appears, pass such order as may be necessary. Somehow this recommendation has not been implemented so far. It is suggested that it is now time that suitable provisions in this regard are incorporated either in the Act itself, or in the Income-tax Rules. There does not appear to be any valid reason for delaying this.

There is room for much improvement in the provisions relating to, and the procedure followed in respect of, re-opening of assessments. As the law stands at present,

- (i) assessment for the years 1940-41 cannot be started or re-opened;
- (ii) assessments relating to a period earlier than eight years cannot be re-opened unless the amount of the escaped income is rupees one lakh or more, and approval of the Central Board of Revenue has been obtained;
- (iii) assessments relating to periods between four and eight years can be re-opened with the prior approval of the Commissioner of Income-tax (or the Central Board of Revenue), provided they were cases of concealment of income; and,
- (iv) assessments relating to periods within four years can be re-opened without prior sanction of the Commissioner.

It is submitted for consideration that it is no longer necessary to retain the provisions relating to the re-opening of assessments beyond the four-year period. It is almost

fifteen years since the War was over, and it may reasonably be doubted whether war-time profits are still in hiding: very probably they have been spent or utilised in productive enterprise. It is against the grain of the money-makers to keep their money without making it to multiply. Shri Mahavir Tyagi's scheme of voluntary disclosures, it may be expected, brought to the surface whatever had been in hiding so far. For all these reasons it is desirable to delete the provisions relating to re-opening beyond the four-year period. This would immediately improve the atmosphere, which at present is one of distrust of the assessee. Another reform in respect of Section 34 is that at present it contains no provision as to the time within which a re-opened assessment should be completed. The resultant position is that the door is opened and the sword is kept hanging over the assessee indefinitely, which is not right. The section should stipulate that a re-opened assessment shall be completed within, say, two years from the re-opening. There have been cases where Section 34 has been applied in respect of a deceased assessee: but, how can the executor or heir explain transactions of the deceased assessee? Once the assessee is dead, there should be no need to persecute further.

In regard to appellate procedure, there are two matters which require

mention. At present assesseees have no right of appeal against any order of an Income Tax Officer levying penal interest under Section 18A. It is necessary that the law should provide for an appeal against any order prejudicial to the assessee. The Appellate Assistant Commissioners are under the Commissioner, and so assesseees cannot help feeling that the Appellate Assistant Commissioners are not free from a bias in favour of the Revenue. As recommended by the Income-tax Investigation Commission, it is necessary that the Statute should place the Appellate Assistant Commissioners within the jurisdiction of the Law Ministry.

The delay in making refunds is causing much hardship to assessee particularly those with small incomes. Another class of assesseees much affected by such delayed refunds are charitable institutions, many of whom operate with limited funds and to whom therefore the prompt payment of their dues will make all the difference. Recently some attempts have no doubt been made to improve the position in regard to the grant of refunds; but the difficulties are still there. Statutory remedy is therefore necessary. The Act should provide that interest shall be payable to the assessee on the amount of refund due to him, if the payment of the refund is not made within a prescribed period.



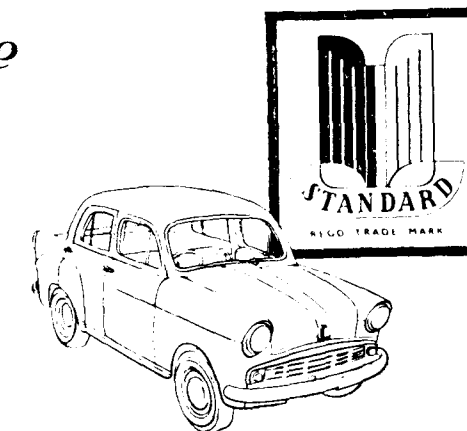
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On Company Law Amendment

INTRODUCTORY

VERY soon after it came into force on 1st April 1956, the new Companies Act brought it to light that there were many practical difficulties in the implementation of its provisions by company managements. For instance, Section 38 required that every company shall give intimation to the Registrar "of the payment or satisfaction, in whole or in part, of every charge relating to the company" within twenty-one days from the date of such payment or satisfaction. Though this reads simple enough, it gave rise to a whole crop of problems for manufacturing concerns, most of whom have overdraft accounts with their bankers with floating charge on their assets. Every time they draw money from the overdraft account, they are "creating" a charge. And every time they pay money into the overdraft account, they are making a payment which, technically, constitutes a part satisfaction of the charge. Such transactions will be taking place almost daily, and even several times in a day. It would be ridiculous to expect the companies to register these "part satisfactions" with the Registrar as required by Section 138 of the Act. They simply couldn't do it, and yet they became liable to the dire penalties imposed by Section 142, i.e. a fine of between Rs 500 and Rs 1000 for every day of default! To quote another instance, Section 301 requires that in the Register of Contracts, Companies and Firms in which Directors are interested, particulars of every such contract shall be entered "within three days of the approval of the contract". A company may have its administrative offices in Bombay, its factory may be in Bihar and the Board meeting may be held in Delhi. How would it be possible to make the entry in the Register (which has to be kept at the Registered Office only, under the section) within three days of the meeting without incurring a good deal of unnecessary expense since the officers attending the Board meeting may not even have reached the Registered office within that time? All the same the section imposes a fine up to five hundred rupees for default. Another glaring example is Section 418 which requires employees' provident fund moneys to be deposited only in Post Office Savings Banks. Post Office Savings Banks, as we all know, pay little by way of interest; deposits may be made there in only in cash and not by cheques; withdrawal of large sums may be made only after giving a week's notice; and they wouldn't collect the interest on the securities in which the provident fund moneys may be invested. These are only a few of the difficulties resulting from deposit in Post Office Savings

Banks. Despite this the Companies Act insists that provident fund moneys shall be deposited only in Post Office Savings Banks—and not in any scheduled bank! There are many other unrealistic and impracticable provisions like the above in the Companies Act, 1956. Pointing out that the Act has been the subject of criticism by businessmen, company managements, shareholders, accountants and auditors, lawyers and judges (these exhaust the list of persons who have anything to do with the Act, barring Government), the Companies Act Amendment Committee observed: "Critics of the enactment—and they are numerous—have focussed attention on its inordinate length, the complexity of its structure, its involved language, the vagueness and obscurity of many of its provisions, the interposition of Government control even in apparently minor matters, the plethora of returns and forms required to be furnished by the management without any corresponding utility, the loop-holes it has left, and many other features which make the enactment cumbersome or defective and difficult of application". That Committee, generally referred to as the Shastri Committee, after Mr A. V. Visvanatha Sastry retired judge of the Madras High Court, who was its Chairman, made a number of recommendations to improve the Act. These, together with several other changes initiated suo moto by Government, have been embodied in the Companies (Amendment) Bill, 1959, which was introduced in Parliament late in the budget session and was subsequently referred to a Joint Select Committee of both Houses. The major changes proposed to be made in the Act by this Bill are explained in this article.

CHANGES IN DEFINITIONS

We may begin by taking note of some significant changes proposed to be made by the Bill in regard to some of the important definitions in the Act. There are only four such definitions we need concern ourselves with, in this connection:—

(a) The Act defines certain persons as associates of managing agents, and places certain disabilities on them. Among such associates, one is, any body corporate at any general meeting of which not less than one-third of the total voting power in regard to any matter may be exercised or controlled by the managing agent either alone or in conjunction with certain others. According to the Bill, any subsidiary of such a body corporate is also henceforth to be deemed as an associate of the managing agent. This means that where a managing agent controls a third of the voting

power in the managed company, and the latter has a subsidiary, the various disabilities placed on associates will apply in relation to the managed company and its subsidiary. The main disabilities placed on associates, which we may take note of in this connection are that the associate cannot be appointed as selling agent in India (Section 356), or as buying agent in India (Section 358), that contracts between the managed company and an associate for the sale or purchase of goods or for the supply of services etc., will require approval of the managed company by special resolution (Section 360), and that where the managed company is a public company it cannot give any loan or other financial assistance to any associate of its managing agent. Applying these disabilities to the cases where the managing agent controls one third of the voting power in the managed company and the latter has a subsidiary, the resulting position is that the managed company cannot appoint its own subsidiary as its buying agent or selling agent, or supply goods and services to it, or receive goods and services from it, or give it any loan or other financial assistance. It seems anomalous that a holding company which has a substantial stake in its subsidiary should be debarred from giving these facilities to the subsidiary. For instance, suppose a cement manufacturing company has formed a subsidiary for its marketing operations, why should this be prevented? Suppose two or more such manufacturers combine together and form one subsidiary for their marketing work, there seems to be no sound reason why this should be prevented; on the other hand it will be advantageous and economic to have such an arrangement. Since the holding company has a large financial stake in its subsidiary, if the latter is in need of funds the parent company should naturally go to its assistance, which, however, the amendment prevents. Another anomaly is that if a manufacturing company does its buying or selling through a separate department in its organisation there is no objection to it, but if it does it by forming a, say, cent per cent subsidiary, it cannot be done! This is illogical. Therefore the law should not impose these restrictions in regard to subsidiaries. At any rate, these disabilities should not apply at least so far as wholly-owned subsidiaries are concerned.

(b) The Act says that no person may be managing director of more than two companies, and managing director is defined as any director entrusted with power of management. This means that even a director entrusted with a stray power becomes a managing director for the period such en-

trustment lasts. This however is not what was contemplated. The intention obviously was that a director who is wielding substantial powers of management should be deemed to be a managing director. To make this position clear the Bill provides that only directors entrusted with substantial powers of management will be deemed to be managing directors. This is a desirable change from the present position.

(c) While the expression 'Officer' is defined in the Act, it does not say precisely who all will be deemed to be officers, but merely says that 'officer' will include certain specified persons, meaning thereby that it will include others also who, however, are left unstated. Under the Act, onerous responsibilities are placed on officers, and severe penalties are prescribed on officers for defaults. It is therefore necessary that the Act should set out precisely all the persons who would be deemed to be officers. If it is not possible to do it, then such severe penalties should not be imposed on officers. The difficulty in giving an exhaustive definition can be no excuse for the lacuna. It is wholly illogical to impose dire penalties on certain persons without precisely defining who those persons will be.

(d) As in the case of associates of managing agents, the Act places certain disabilities on relatives also. Notably, there are restrictions on the appointment of relatives of directors to offices of profit (Section 314), on entering into contracts with relatives of directors (Section 297), and on the giving of loans to relatives of directors (Section 295). Further, for the purpose of determining whether a firm or company is an associate of a managing agent, participation in the partnership and the holding of voting power in the company by relatives are also taken into account, besides relatives themselves being deemed to be relatives in some cases. Under the definition of relative as contained at present in Section 6 of the Act, about eighty-one persons standing in different degrees of relationship come within the definition, and the Shastri Committee observed that "it is highly inconvenient and in many cases, impracticable, for the director of a company to ascertain the different firms or companies in which any of the enumerated relatives is a partner or managing agent or director." The Committee recommended that a simpler and narrower definition of 'relative' should be substituted for the existing definition. Strangely, however, the Bill has prescribed a new definition which not only does not restrict the categories of relatives, but has actually widened the definition so as to include many who were hitherto not relatives. For

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example, under the existing definition members of a Hindu Joint Family are deemed to be relatives only to the extent they are first cousins; under the Bill however, all members of a Hindu Joint Family will be deemed to be relatives if they fall within the categories listed in Schedule I-A in the Bill. Once a partition has taken place, the members who have been partitioned off cannot be treated as being under each other's influence; to do so, would be contrary to facts. So it is necessary that Schedule I-A should be omitted from the Bill. This is particularly necessary because the Bill has added to the disabilities on relatives by providing (under an amendment of Section 370) that for the purpose of determining whether two companies are under a common management the voting power therein held by relatives shall also be taken into account.

CHANGES REGARDING TRADE ASSOCIATIONS

The present Act has proved irksome to Trade Associations, particularly the provisions relating to notices, returns, general meetings, election of executive committee etc. They cannot always give 21 days' notice of general meetings, especially if a minister or other celebrity is to inaugurate the meeting, as there are likely to be sudden changes in the programme.

The executive committee often consists of dozens of business all over sixty-five years of age, and the cumbrous procedure of Section 281 cannot be observed. The filing of frequent changes in the particulars of the executive committee members has also proved extremely inconvenient and an unnecessary formality. The Bill has removed all these difficulties by suitable exemptions to Trade Associations. This is a welcome change.

PRIVATE COMPANIES DEEMED TO BE PUBLIC COMPANIES

If fifty-one per cent of the shares of a private company are held by a public company, the former is deemed to be a subsidiary of the latter, under the Companies Act. The provisions applicable to public companies apply to such subsidiaries also. The Amendment Bill contains a provision to the effect that if twenty-five per cent of the shares of a private company is held by any other company (whether public or private) such private company will be deemed to be a public company. This means that several concessions now enjoyed by private companies will be denied in the case of private companies of this kind. This amendment follows a recommendation of the Shastri Committee. They observed that there are many private companies with large capital doing extensive business and controlling a number of public com-

panies; that this is made possible because funds of other companies, public and private, are invested in such private companies, that as public money is invested in such companies, there is no reason for treating such companies as private companies, and that therefore such private companies should be subject to the same restrictions and limitations as to disclosure and otherwise as apply to public companies. In examining the question as to whether this amendment is necessary it would be useful to refer to the privileges now enjoyed by private companies. The important ones among these are: they need not file their profit and loss accounts with the Registrar; the restrictions on loans to directors do not apply to them; if they are managed by managing agents, there is no ceiling to the amount they may pay to the managing agents by way of remuneration; similarly, there is no ceiling to the amount they may pay as remuneration to their managing directors, if any; and above all, the ceiling of eleven per cent prescribed by Section 198 in respect of managerial remuneration does not apply to them. It is not apparent as to why these privileges should be taken away from a private company merely because 25 per cent of its shares are held by one or more other public companies. The case against the amendment is stronger still where such holding is, not by any public company but by one or more other private companies. On the other hand there are many procedural difficulties which would result by deeming such private companies to be public companies. Foremost among these may be mentioned the fact that in a private company 25 per cent of the shares may be held by a public company to-day, and to-morrow the shares or a part thereof may change hands and be owned by an individual, in which case, the private company ceases to be public; but there is no provision in clause for effecting this consequential change. Making the change from private to public and from public to private involves calling a general meeting, changing the name, obtaining Government's consent, filing the particulars with the Registrar, etc. Since even at present the provisions applicable to public companies apply also to private companies fifty-one per cent of whose shares are held by public companies, the balance of advantage appears to be to retain the existing position and not make the proposed change.

SOME AMENDMENTS RE: SHARES

Two amendments proposed in the Bill in regard to issue of fresh capital, and transfer of shares may now be noted. Under Section 31 of the Act, where at any time subsequent to the first allotment of shares in a company, there is a further issue of shares, it should be issued first to the existing

holders of the equity, unless the company in general meeting otherwise direct. It has to be pointed out that all issued capital is not fully subscribed in all cases during the first allotment, and further allotments continue to be made over a period of time. But as Section 31 stands at present it would appear that such further allotments cannot be made without reference to the company in general meeting, and without offering it to the holders on the first allotment. The Shastri Committee pointed out that it would be impracticable, if not impossible, to compel directors to make a pro tanto offer to the existing shareholders from time to time before making any allotments against applications received by them over a period of months. They recommended that the condition about offer to the existing holders of the equity should apply only to issues made after the expiry of one year from the first allotment of shares. This recommendation is implemented in the amending Bill. We may however point out that since there is a dearth of capital in the country, it would have been better if the time limit had been fixed at two years instead of one year, so as to give sufficient time for getting the first issue subscribed fully.

As regards transfer of shares, Section 111 of the Act contains provision for an appeal to the Central Government against refusal by a company to register a transfer. The Shastri Committee pointed out that under Section 155 which relates to rectification of the Register of Members, a Court will not draw unfavourable inferences against the Directors merely because they do not give their reasons for refusing to register a transfer if the Articles provided that they need not give any reasons for their refusal. It appears that the Department had expressed the view that if the company fails to give any reason for refusing to register the transfer even to Government at the appellate stage, it should be open to the appellate authority to presume that there is no justification for such arbitrary refusal. Statutory validity is now sought to be given to the above view, in the amending Bill, which includes a provision to that effect in Clause 27.

PART SATISFACTION OF MORTGAGES

Under several amendments proposed in the Bill, it is no longer necessary to file with the Registrar any return about part satisfaction of any charge. The obligation to file arises only in the case of full satisfaction. Thus, a great practical difficulty we have mentioned in the opening paragraphs of this article has been eliminated.

CHANGES REGARDING GENERAL MEETINGS

We may now mention some changes proposed in the Bill in

regard to the provisions relating to general meetings in the Act. Under the Act as it stands now, if it has not been possible for a company to hold its annual general meeting within the time-limit prescribed by the Act, the Registrar is empowered to grant extension up to six months. The amendment proposed in the Bill in respect of Section 166 takes away this power. It appears that the intention is to vest this power in the Central Government.

Again, the Act requires that the annual general meeting shall be held only in the registered office or in the town or village in which it is situate; the Shastri Committee observed that this provision has introduced a rigidity in the matter of convening general meetings, which, in practice, has proved irksome to many companies; and they recommended that power may be taken by the Central Government to exempt from this provision any class of companies; that it should be permissible for any company, by its articles or by resolution at its annual general meeting, to determine the time and venue of its general meetings; and that private companies should be given the further concession of holding their general meetings at such times and places as may be unanimously agreed to by its shareholders. These have been incorporated in the Bill.

At present, the notice period for general meetings is prescribed by the Act as 21 days. The Shastri Committee had suggested that this should be changed to 28 days. Their reasoning was that the Act requires special notice of 28 days to be given by shareholders in respect of several specified matters; that the shareholders can give that notice only after they receive notice of the meeting of the company; and that there is thus an inconsistency between 21 days' notice for the meeting of the company and the 28 days required for the special notice. Their recommendation that notice for general meetings should therefore be of 28 days, introduces too long a notice for general meetings. Even the existing notice of 21 days has been complained of by many as being too long. A better suggestion would appear to be for the notice of general meetings being retained at 21 days, and instead, changing the notice period for 'special notice resolutions' from 28 days as it is at present, to say, 14 days. This would enable shareholders to give special notices after receipt of the notice of the general meeting.

In Section 176 relating to proxies, there is a lacuna in that since it merely provides that any provision in the articles requiring the instruments of proxy to be received by the company more than forty-eight hours before the meeting shall be void, it would be legally permissible for proxies to be lodged at any time before

the meeting, even five minutes before the meeting. The Bill removes this difficulty by providing that where the articles of a company prescribe a longer period before a meeting for lodging the proxy, a period of 48 hours shall be deemed to be prescribed instead.

Under the Act as it stands at present, the election of directors has to be done at the annual general meeting, by show of hands in the first instance, or by a subsequent poll if one is demanded. This has proved very irksome to clubs and trade associations where the election is done by ballot. The Bill provides in the proposed new Section 263 A, that in the case of non-profit-making organisations, the election of the executive committee may be conducted by ballot.

As recommended by the Shastri Committee, the Bill prohibits the advertisement of Chairman's speeches unless the entire proceedings of the meeting are also advertised.

How should minutes of general meetings and of Directors' meetings be kept? Is it permissible to type the minutes and paste them in the Minutes Book? If not, how soon after the meeting should the minutes be written in the book? And when should the minutes of general meetings be signed—at the next general meeting? These are all questions in regard to which there have been doubts. The provisions in this regard in Clause 54 of the Bill do not appear to be quite satisfactory. It is necessary that the practice of typing the minutes and pasting them in the Minutes Books should be discouraged; all minutes must be written by hand only. While the minutes of Board meetings may be signed at the next Board meeting, (since Board meetings are not infrequent) so far as the minutes of general meetings are concerned, it should be statutorily provided that they shall be signed by the Chairman of that meeting, say, within a fortnight of the meeting.

SOME MISCELLANEOUS AMENDMENTS

Before dealing with the amendments relating to Directors and Managing Agents, it will be convenient to deal here with some of the other amendments which are of importance.

(a) By a proposed new Section 197 A, the Bill provides that a company cannot employ at the same time more than one of the following categories of managerial personnel, i.e. Managing Agents, Secretaries & Treasurers, Manager and Managing Director. The 'Notes on Clauses' in the Bill says that this prohibition is to stop a company from employing more than one type of managerial personnel "which is needless and expensive." While this argument sounds plausible at first sight, a closer study shows that this prohibition is unnecessary. According

to the definitions in the Act, Managing Agents, Secretaries & Treasurers, and Managers are all persons who are entrusted with the "whole" of the management. So, clearly, if there is a Managing Agent, there cannot also be a Manager, for in that case the latter cannot be said to have the "whole" of the management in his hands. Hence, there is no need for any statutory prohibition so far as Managing Agents, Secretaries & Treasurers, and Managers are concerned. The story is different in regard to Managing Directors. The technique of joint stock company management has become so complex in modern times that several manufacturing (and even trading) concerns have found it necessary to have more than one managing director, each looking after a large department. So far as the company is concerned it should make no difference as to how many such managing directors are employed, since (a) Section 198 prescribes an overall ceiling to managerial remuneration, and (b) Section 309 prescribes a ceiling to the remuneration payable to all Managing Directors in the aggregate. Considering all these, there seems to be no point in imposing a restriction like the one proposed by the new Section 197 A.

(b) Following the recommendations of the Shastri Committee, the Bill amends Section 198 so as to include perquisites paid to

Directors, Managing Agents, Secretaries & Treasurers, Managing Directors and Managers in calculating the total managerial remuneration paid by the company in connection with the overall ceiling of eleven per cent imposed by the section.

(c) The Shastri Committee said that the law should not lend countenance to excuses resorted to for delaying payment of dividends after they are declared; and they recommended that within a prescribed period after the declaration of dividend, the company shall deposit the total amount of the dividend payable in a scheduled bank, in a separate account, and the dividend warrant shall be payable out of such account. The Bill provides that this shall be done within fourteen days of declaration of dividend. Fourteen days is probably too short a time; it could be extended to six weeks instead of a fortnight, as it will provide sufficient time for getting together the requisite funds and also for making the necessary computations. Small shareholders may like to receive their dividends in cash; so, a suitable provision should be included to permit companies to do so. Suppose a shareholder fails to collect the dividend amount; that means the money will lie in a dead account indefinitely; so, a provision should be included to the effect that after, say, six months from the deposit, the com-

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pany may transfer to its own bank account all amounts lying uncollected from the separate dividend account. If these changes are made, the provision about dividend moneys being deposited in a separate account should give rise to no hardship.

While on this question, it has to be noted that the Bill prohibits the distribution of dividends in specie. It appears some companies distributed due shares by way of dividends, and hence this amendment. There could be no quarrel with it.

(d) Private Companies will also have to file their balance sheets and profit and loss accounts with the Registrar, after the Bill becomes law. A major privilege enjoyed hitherto by private companies is thus taken away without any substantial ground for doing so.

(e) Under Section 250 of the Act, during the course of investigation into the ownership of shares and debentures, Government have power to impose restrictions on the transfer of those shares and debentures, and on the exercise of any voting rights attached to those shares. The Shastri Committee recommended that the section should be amended so as to confer on the Central Government in a case where, owing to change in the ownership of shares, a change in the managing agency of directorate of a company is likely to take place, which, if permitted, would, in its opinion, be prejudicial to the public interest, to direct by an

order that for a specified period, say three years, voting rights shall not be exercised by the transferees of those shares. This has been suitably incorporated in the Bill, in Clause 84. This is a safeguard against the cornering of shares by unscrupulous persons, and there cannot be any objection to it.

(f) The Shastri Committee observed that there have been abuses in the appointment of sole selling agents, and they recommended that a managing agent who has resigned should not be appointed as sole selling agent for a period of three years thereafter. And further, that power should be taken by Government to notify industries or commodities like textiles, cement, sugar etc. in which sole selling agencies for any area could be given only on such terms and conditions as Government might approve of. These are embodied in the amendment Bill in Clause 104. If a managing agent resigns and gets appointed as sole selling agent finding this latter lucrative, what harm is there in doing so? The objection seems to be based merely on dogma. And as regards notification of industries etc. in respect of which sole selling agents may be appointed only with Government's consent, the provision in the Bill is that the Central Government may by notification direct that no sole selling agent in relation to any trade, business or industry or any commodities specified in the notification shall be appointed unless

(i) the individual, firm or company proposed to be appointed as sole selling agent, (ii) the area in which the sole selling agent will operate, and (iii) the terms and conditions of the sole selling agency, have all been approved by the Central Government. After any such notification, all existing sole selling agencies in those industries and commodities should also obtain Government's approval within six months, failing which they will cease. It is apprehended that this provision will bring in its wake a whole crop of problems. This is a concentration of economic power in the hands of Government; for, it places in Government's hands an enormous potential for giving patronage. This power of appointing sole selling agents which is now held by a large number of manufacturing concerns, big and small, will henceforth be concentrated in a single agency, i.e. Government. Is this desirable? Secondly, take the case of cigarette distributors: each shopwalla has the exclusive right to sell within his own small area; all these will henceforth require Government's approval. And if one shopwalla is found unsuitable and another has to be appointed in his place, the fresh appointment will have to be deferred until the files move in Delhi (in their own sweet time) and in the meanwhile the business will have to take care of itself! And do Government have the machinery for handling the thousands of applications that are bound to be referred to them in this connection? If at all these restrictions are necessary, they should apply only to sole selling agencies having jurisdiction over an entire State of the Indian Union, or any larger region. It would be preferable however not to have these restrictions at all.

(g) In the opening paragraphs of this article we have pointed out the difficulties arising from the requirement of the present law that employees' provident fund moneys shall be deposited only in Post Office Savings Banks. The Bill contains a provision to remove these difficulties. Clause 157 provides that a company may keep the provident fund moneys in any scheduled bank. This is a most welcome provision.

(h) At the instance of the Department, the Shastri Committee recommended the insertion of a new Section 629 A, to the effect that for any contravention of the Act for which no separate penalty is provided, the officer in default shall be punishable with fine up to five hundred rupees. This has been included in the Bill. But there are serious objections to it. It will mean that even minor omissions will attract the penalty, as there is certainly a contravention resulting from the omission. It will not also be possible for those connected with company administration to know whether they have become vulnerable to the penalty or not; for, the Companies Act is a mammoth enactment with more than six hundred

sections, containing many do's and don'ts, several of which have been found to be impracticable when it comes to a question of compliance. And so, it is not fair to have an omnibus penalty clause like this. If it is considered absolutely necessary, certain offences could be listed and suitable penalties provided for them. The omnibus penalty clause is not at all justifiable.

AMENDMENTS RELATING TO DIRECTORS

In respect of the provisions in the Act relating to Directors there are about a dozen amendments which are worthy of note. These are explained below:—

(a) In the existing Act there is an anomaly in that a private company which is a subsidiary of a public company is required to have three directors even though it is a private company, with, may be, only two members. To remove this difficulty the Bill provides every private company need have only two directors.

(b) Section 261 of the Act provides that associates of managing agents, and other persons connected with the management, may be elected as rotational directors, only by a special resolution of which special notice had been given. But there is nothing in the Act to debar such persons from being co-opted to casual vacancies or being appointed as alternates; this is a lacuna in the Act. The Shastri Committee pointed this out, and the Bill accordingly provides that even for co-option to casual vacancies or appointment as alternates special resolution after special notice will be required. Perhaps it would have been helpful if the Bill had also provided that if the original director had himself been appointed by a special resolution, a special resolution shall not be necessary for appointment of a substitute in his place.

(c) Section 264 of the Act has been a headache. It requires that a person who is not a retiring director shall not be capable of being appointed a director unless consent to act as director had first been filed with the Registrar. This means that every candidate seeking election as director should file consent with the Registrar which becomes infructuous if he is not successful in the election. The procedure laid down by Section 264 is thus a wasteful and needless formality. This has now been remedied by the Bill which provides that the consent is to be filed with the Registrar within seven days of the appointment.

(d) Section 285 requires that a Board meeting shall be held once at least in every three calendar months. The Bill has added a further provision to the effect that not more than two calendar months shall elapse between any two Board meetings. The Shastri Committee pointed out that the Section causes unnecessary expense and hardship, particularly to smaller public companies, private

companies, and companies registered under Section 25, the volume and nature of whose business does not require Board meetings to be held so often. According, as per their recommendation the Central Government has taken under the Bill to grant suitable exemptions from this provision to any class of companies.

(e) Section 292 of the Act lays down that certain powers may be exercised only by the Board of Directors and that also only at Board meetings. Notable among such powers is the power to borrow. This meant that principal officers of branches cannot exercise borrowing powers, and this has created much practical difficulty. The Bill has remedied this position by providing that the Board may delegate borrowing powers to such branch officers also.

Where there is an overdraft account, there have been doubts as to whether the act of signing to any office of profit. Thus, if a distant relative of a director is appointed, say, as a clerk in a remote branch, the director will know nothing about it, but all the same he will have technically vacated office. This has caused much hardship. To remove this, the Bill provides that only appointment to places of profit carrying a monthly remuneration of five hundred rupees or more will fall within the purview of the section. Further, even in the case of any such appointment, if it is made without the knowledge of the director, company's consent may be obtained within three months of the appointment; and if the consent is not forthcoming the director does not vacate office but only the relative. This is a distinct improvement on the present position.

(f) Section 293 imposes certain restrictions on the powers of the Board, one such being that they shall not, without the consent of the company in general meeting, borrow beyond the paid up capital plus the free reserves of the company, temporary loans from the company's bankers are however to be left out of account in computing this limit. There have been doubts as to what is meant by a 'temporary loan'. This has now been clarified by the Bill which specifies that 'temporary loans' repayable on demand or within six months of the date of the loan, such as cash credit arrangements etc.

(g) According to Section 297, the Board's sanction is required for contracts in which any director or his associates are interested. The Bill makes a much needed clarification to the effect that purchases for cash are outside the purview of the section; so also transactions by banking and insurance companies in the ordinary course of business.

(h) Section 299 provides for compulsory disclosure of interest by directors. Here also the Bill makes a welcome clarification to the effect that where a director is a member of another company and holds not more than two per cent of the share capital of that other company, he will not be deemed to be interested in contracts with such other company.

(i) Section 299 contains regulations for maintaining a register of contracts, companies and firms in which directors are interested. An amending clause in the Bill takes out of the purview of this section contracts and arrangements the

value whereof does not exceed a thousand rupees in the aggregate in any year, as also contracts by a banking company for the collection of bills in the ordinary course.

(j) The remuneration payable to directors is regulated by Section 309. As it stands now, in computing the percentage of profits payable to any director, sitting fees and monthly payments in lieu thereof, will be excluded. The Bill makes a significant change in this respect. It provides for the exclusion of sitting fees only. If monthly payments are given in lieu of the whole or a part of the sitting fees, they will be included in computing the percentage of profits paid to directors by way of remuneration; and they will also be included in computing the overall ceiling of eleven per cent to managerial remuneration.

(k) Under Section 314, a director ipso facto vacates office if he or his relatives etc. are appointed to any office of profit. Thus, if a distant relative of a director is appointed, say, as a clerk in a remote branch, the director will know nothing about it, but all the same he will have technically vacated office. This has caused much hardship. To remove this, the Bill provides that only appointment to places of profit carrying a monthly remuneration of five hundred rupees or more will fall within the purview of the section. Further, even in the case of any such appointment, if it is made without the knowledge of the director, company's consent may be obtained within three months of the appointment; and if the consent is not forthcoming the director does not vacate office but only the relative. This is a distinct improvement on the present position.

AMENDMENTS RE: MANAGING AGENTS

There are about half a dozen amendments relating to Managing Agents which may be taken note of before concluding this article. These are dealt with in the succeeding paragraphs.

Subsidiary companies as managing agents: The Bill proposes to include a new Section 325A, according to which, after the Bill comes into force, no company may appoint or employ as its managing agent or any company which is a subsidiary company. The 'Notes on Clauses' sets out no reasons for the proposed amendment. On an examination of the question, there appears to be no valid reason for prohibiting subsidiary companies from functioning as managing agents. The Department's view appears to be that a subsidiary is not an independent body; its policies are dictated by the parent company; and so the company managed by the subsidiary has no say over the policies of its managing agent. This however is only a theoretical objection; for, the managed company can always ensure that its managing agent

carries out the policies laid down by its Board, i.e. the Board of the managed company. Perhaps, a more valid objection to subsidiaries functioning as managing agents could be that by this device of subsidiaries the statutory restriction that no managing agent may manage more than ten companies at a time, could be successfully evaded. If so, instead of altogether prohibiting subsidiaries from functioning as managing agents, the statute could say that in counting the number of ten companies, those managed by any subsidiaries in the group will also be included. There are sound reasons why the proposed amendment should not be pursued, for, for quite some time now, several subsidiaries have been functioning as managing agents, without any complaint against them, for many years. For instance, Tata Industries Limited have been functioning for many years as managing agents of various concerns in the Tata group. And Tata Industries is a subsidiary of Tata Sons Limited. It is not as if there has been any complaint against an arrangement of this nature. On the other hand, where a foreign collaborator wants to come into the managing agency, this arrangement presents a most convenient method for doing so. Further, where the managing agency is a collection of experts (and not mere providers of capital), the financing group will be

the parent company, and the administrative experts who constitute the subsidiary will be the managing agents. On a careful study of the matter, the prohibition against subsidiaries functioning as managing agents appears to be based solely on doctrinaire considerations, but it is not in the best interests of the country. It may also be stated incidentally that the Shastri Committee has not made any recommendation to the effect that subsidiaries shall not function as managing agents.

Tenure of managing agencies:

The Bill contains no amendment in respect of the provisions in the Act relating to the duration of managing agencies. The point however has become deserving of mention here, since, in October 1959, Government have made a policy announcement to the effect that in future managing agents will be allowed to serve only for ten years in the first appointment, and for five years in the second or subsequent appointments. Under Section 328 of the Act, the periods fixed are fifteen years and ten years respectively. In a recent study on the Managing Agency System, the National Council of Applied Economic Research have rightly pointed out that agencies for such short durations will have the effect of managing agents not undertaking any plans of expansion which may run into a longer term, and

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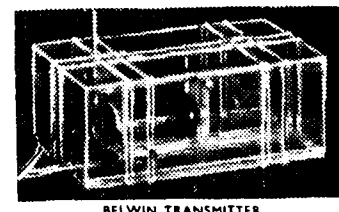
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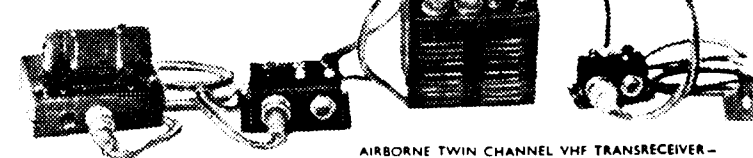


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also that such short tenure may discourage foreign collaboration. Subsequently, the Department has clarified that the term of ten years and five years is not rigid, and that in the case of industries with a long period of gestation, like steel, an extended period will be given subject to the maximum of fifteen years prescribed by the Act. However, since Government have themselves admitted that the system has a useful contribution to make to the industrial development of the country, it would have been better if the tenure is allowed as provided in the Act, without any curtailment.

Remuneration of managing agents: Perquisites paid to partners of a managing agency firm, directors of the managing agency where it is a public company, and directors and members of the managing agency where the managing agency is a private company, will all be treated as part of the managing agent's remuneration, according to the Bill. This is based on a recommendation of the Shastri Committee. There cannot be any serious objection to this step.

Here it is necessary to take notice of an announcement made by Government in October 1959, under which managing agency remuneration will in future be on a slab system. The slab system is

introduced also in regard to the remuneration of Secretaries & Treasurers. There are certain objections to the slab system; but before stating them, it would be useful to mention the slabs. According to the system, remuneration at 10 per cent of the net profits will be allowed to managing agents only where the profits do not exceed ten lakhs. For the second slab of ten lakhs it will be 9 per cent. For the third ten lakhs it will be 8 per cent; for the fourth ten lakhs it will be 7 per cent; for the fifth ten lakhs 6 per cent; between fifty and seventy-five lakhs it will be 5½ per cent; between seventy-five lakhs and one crore it will be 5 per cent; and for the profits in excess of one crore it will be 4 per cent. For the Secretaries & Treasurers the corresponding figures (the slabs are the same as for managing agents)—it starts from 7½ per cent and decreases by ½ per cent for each slab up to 50 lakhs, whereafter it is 4½ per cent, 3½ per cent and 3 per cent respectively for the remaining slabs. Though when making this announcement Government said that this system will not result in any substantial reduction in managing agency remuneration, still, as a matter of fact, it does result in some curtailment; if it does not, then why this announcement? On the other hand there is the fundamental

question whether the disincentive effects of this announcement will not have repercussions on the progress of our industrialisation. It is accepted on all hands that what our country needs now is the promotion of more and more industries of various kinds, manufacturing goods which are much in need and which we have hitherto been importing. It is also accepted by Government that the managing agency system fills an important function in the country's industrial development. When this is acknowledged, why discourage the system by measures like this? Speeches from the Chair have made out three important objections to the slab system. In the early years of most industries, there are periods of losses and of no profits; later, when the industry starts making good profits, the managing agent is legitimately entitled to expect a fair share of the profits as a recompense for the earlier years of struggle; and so there should be no curtailment if the profits increase. This is the first, and a very valid objection. The second objection is that efficient management results in larger profits; a less efficient management brings in smaller profits; but under the slab system the fellow making smaller profits gets a bigger percentage as remuneration while the efficient one has to be content with a re-

duced percentage. Thus the slab system puts a premium on inefficient management. This is the second objection to the system. The third objection, which is of a general nature is that such changes from time to time, make the future uncertain, and so all planning for expansion becomes difficult. It has also been pointed out that the question of a slab system for managing agency remuneration was examined by the Shastri Committee who however considered that they saw no sufficient grounds for reducing the percentage fixed by Parliament in 1955 after prolonged discussion. It is also noteworthy that this scheme was not made a part of the Companies (Amendment) Bill, but was announced subsequently thus denying to Parliament an opportunity to have it considered by the Joint Select Committee. To reiterate the point, since it has been acknowledged that the managing agency system has a significant contribution to make in the industrialisation of the country, this curtailment of the managing agency remuneration should not have been made.

Change in the Constitution of managing agents: Section 346 of the Act provides that if there is any change in the constitution of any managing agency firm, then Central Government's approval shall be obtained to the change,

failing which the managing agency will cease. And the time-limit fixed for obtaining the approval is six months from the date of the change. Said the Shastri Committee, on this section: "It has been represented that applications under this section have to be made for approval by Government of matters which do not involve any material change in the constitution of the managing agency. The instances which have been mentioned are:—transfer of preference shares carrying no voting rights; change of one of the directors whether by death, retirement or otherwise, where the managing agency is a body corporate; death or retirement of a partner or the introduction of a new partner where the managing agency is a firm; appointment of alternate directors for period not exceeding six months; and issue of unissued shares to existing members. It has been pointed out that subsection (1) as it stands requires sanction to be obtained after a change takes place, and if for any reason approval is not granted by Government, the consequence is that the managing agent ceases to act. The proper thing is to provide that the change shall not be effective unless the approval is granted. And they made a recommendation accordingly. This however has not been incorporated in the Bill. Perhaps the difficulty is that once a share has been transferred, it cannot be directed that the transfer shall not be effective.

What the Bill does provide relates to an entirely different matter, i.e. that if a managing agent is a subsidiary company and there is any change in the parent company, then also Central Government's approval should be obtained, failing which the managing agency will cease.

Current account of managing agents: Section 369 prohibits loans to managing agents and their associates, but permits managing agents to have a current account in respect of the managed company's funds, for the purposes of the business of the managed company. A limit of twenty thousand rupees is fixed for such current account. By adding an Explanation, the Bill clarifies that the current account refers to cash advances given by the managed company to the managing agent by way of an imprest, and the transactions in the account should be settled as far as possible on a monthly basis.

Loans to companies under common management: Section 370 of the Act imposes certain restrictions on loans and other financial transactions as between companies under a common management. An Explanation in the Section specifies under what circumstances any two or more companies will be deemed to be under a common management, which it is unnecessary to set out here. What the

Bill seeks to do is that in addition to the circumstances already specified in the Act, under some other circumstances also, companies will be deemed to be under a common management (with the result that in those cases also consent by special resolution will be required for the making of loans etc., as between those companies). The additional circumstances mentioned in the Bill are: (a) where a third of the voting power in the two companies is held or controlled by the same individual or company; (b) where the transaction is one between one company and another which is a subsidiary, then, if the holding company of the latter is under the same management as the former; (e.g. A is managed by X; B is also managed by X, but B is a holding company with C as its subsidiary. The restriction is in respect of a transaction between A and C); and (c) if the directors of one company hold the majority of shares of another company, shares held by relatives of directors being also included in making this computation. These changes are based on recommendations made by the Shastri Committee. It will certainly be possible for a company to know who are the persons that hold substantial blocks of its shares; but it will be difficult for the company to find out whether those persons hold substantial blocks of shares in any other company. The fact that it is permissible for shares to be held benami only accentuates this difficulty. The matter is further complicated by the fact that the shareholder may be holding the shares in the name of his bankers, so that the company can never find out who is the shareholder, without which information the question of discovering whether the same person holds a substantial block of shares in another company is rendered much more difficult. For these reasons, the amendment proposed in the Bill bristles with practical problems.

Interlocking: Section 372 of the Act imposes certain restrictions on investment by a company in shares and debentures of other companies within the same group. The restrictions are:—

- the shareholders of the investing company may by ordinary resolution make such investment without any limit, but only with the approval of the Central Government;
- the Board of Directors may make such investments by unanimous resolution, but only within the following limits: i.e. up to 10 per cent of the subscribed capital of the company in whose shares or debentures the investment is being made; but the aggregate of the investments in the group as a whole is not to exceed 20 per cent of the subscribed capital of the investing company.

To the above conditions the Bill seeks to add a further condition that no company may make investments in shares and debentures of other companies (whether within the same group or outside the group) beyond 30 per cent of the subscribed capital of the investing company. An exception is however made in respect of Investment Companies. The question for consideration is whether such an absolute ceiling is desirable. Company funds have been a good source for the supply of capital to industries in the private sector. Since we need an increased pace of industrialisation, a restriction like this runs counter to what the actual requirements of the country demand. The Shastri Committee also had not recommended any such absolute ceiling. In any event there is a clear case for exempting investments in rights shares from following the procedure prescribed

in the Section, since, on a rights issue, the offer has to be accepted or rejected within fifteen days as a rule, and it will not be possible to get the general body's approval within that time, where acceptance of the offer may result in exceeding the limits prescribed in Section 372.

CONCLUSION

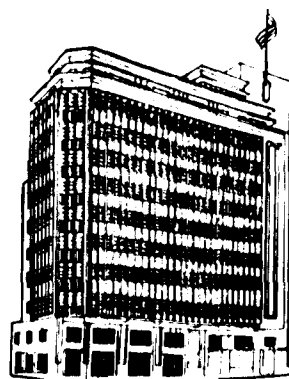
The foregoing is by no means an exhaustive survey of the Companies (Amendment) Bill. The Bill contains no less than 210 clauses, comments on which can easily extend to one whole volume. However, in this article, all amendments which are likely to be considered of any significance to company managements have been touched upon. And if the comments herein provoke further thought on the subject, the purpose of this article will have been more than fulfilled.



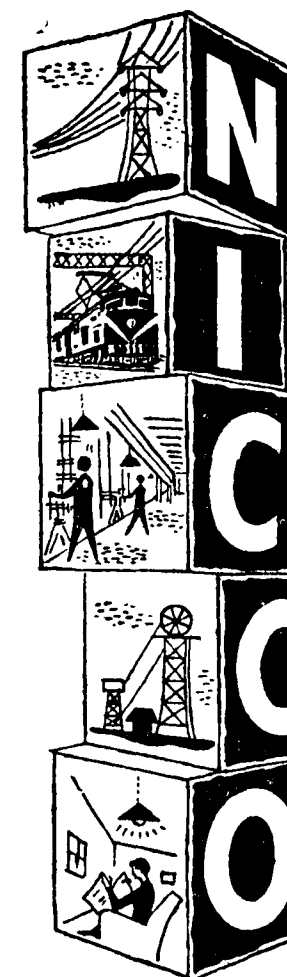
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Synthetic Rubber Project for India

By TULSIDAS KILACHAND

ONLY a few years ago, Natural Rubber was exported from India even when the production of Natural Rubber was as low as around 15,000 tons per year in 1950. Within a period of 10 years, this position has completely changed and not only the consumption of Rubber has steeply gone up but also we have to import substantial quantities of Rubber to meet our requirements. In 1953 against a total Natural Rubber Production of only 24,000 tons, the Indian consumption of Natural Rubber alone has registered a high of approx. 35,000 tons. In addition further quantities of Synthetic Rubber and reclaimed Rubber of the order of over 7,000 tons were necessary to meet the total Indian demand for rubber. It is obvious that India is already experiencing a deficit of over 17,000 tons of Rubber per year on the present consumption basis. This deficit is expected to grow sharply from year to year hereafter as substantial licensed expansion capacity in Tyres and other Rubber goods manufacture comes into operation. It is estimated that the consumption of Rubber by 1961 will be of the order of 55,000 tons as against the indigenous Natural Rubber production of only 25,000 tons per year by the same time, leaving a big deficit of 30,000 Tons of Rubber. By the end of Third Five Year Plan or a little thereafter consumption estimates of rubber are placed at between 85,000 to 90,000 tons per year. Against this the indigenous production of Natural Rubber is not likely to keep pace and in spite of present efforts to increase Natural Rubber production the total Natural Rubber production in India even by the end of Third Five Year Plan is not likely to exceed about 35,000 Tons or so. It will be easy to see from the above that the deficit in the supply of Rubber which is of the order of about 17,000 tons per year now will go to approximately 40,000 to 45,000 tons by the end of Third Five Year Plan.

Such large imports, which have to be made today, have been responsible for a continuous Foreign exchange expenditure representing approximately 5 crores of Rupees per year today and this expenditure will have to increase commensurate with larger imports that will be inevitable till Synthetic Rubber production programme in India is taken in hand.

It is in consideration of such situation that the Planning Commission had provided in the Second Five Year Plan programmes for a Synthetic Rubber Project of the capacity of 20,000 tons of Rubber which was a step in the right direction. The planning for Synthetic Rubber production in place of

Natural Rubber was decided upon primarily because already the yield of Natural Rubber per acre in India was relatively low as compared with better managed plantations in other parts of the world and because considerable acreage of about 2,50,000 acres was presently locked up for a production of only 25,000 tons of Rubber per year. In view of the present need for bringing more land for cultivation of food crops it was logical that any effort in increasing Natural Rubber production in India could primarily be by increasing productivity of present acreage rather than by substantial expansion of Natural Rubber plantations. On the other hand there was a fortunate circumstance in India in respect of large availability of another Raw Material for production of Synthetic Rubber. This raw material is Ethyl Alcohol which is the by-product of the cane sugar industry which is fairly extensively established in the country. The Planning Commission's programme for Synthetic Rubber was rightly based on utilisation of the large surplus alcohol. This was in spite of the fact that no where in the free world today Synthetic Rubber plants are based on alcohol as raw material. Even though during the last World War considerable amount of alcohol was used in the United States for production of Synthetic Rubber these have all been closed down and the switch over has taken place to petroleum which is cheaper and plentiful. In India however, petroleum has still to be imported to meet our needs of refining petroleum products and till such time that our present hopeful efforts of prospecting petroleum are finally determined, it will be illogical to plan any production of Rubber on the basis of petroleum.

During the last few years several efforts were made to import Foreign technology in respect of Synthetic Rubber and at least three foreign teams have looked at the prospect of Synthetic Rubber production in India primarily under Government auspices. As a result of the studies made by these teams Synthetic Rubber plant of the capacity of 20,000 to 30,000 tons per year and based on alcohol is deemed to be feasible and desirable.

As mentioned above the Synthetic Rubber Project was to be considered initially in the Public Sector. However, in view of the foreign exchange difficulties the Government of India were willing to consider any suitable scheme in the Private Sector also. This flexible approach of the Government has to be commended as otherwise in order to meet the requirements of the Industry considerable quantities of Rubber would have to be compulsorily imported resulting in

a continuous drain on Foreign exchange resources.

It was under these circumstances that we decided to make an effort to plan for Synthetic Rubber Project in India based on alcohol. Thanks to the earlier studies made by the Foreign teams in regard to this Industry and in view of the fact that such an Industry was basically feasible even when it was based on alcohol our efforts to induce a distinguished American Company primarily interested in the manufacture of Synthetic Rubber and Tyres and Rubber goods have borne fruit. We were able to arrange for a financial and technical collaboration of Messrs. Firestone Tyre & Rubber Co. of Akron Ohio (USA) for production of Synthetic Rubber in this country. The essential features of this scheme as announced by me at a Press Conference held in Bombay on the 30th September are as follows:

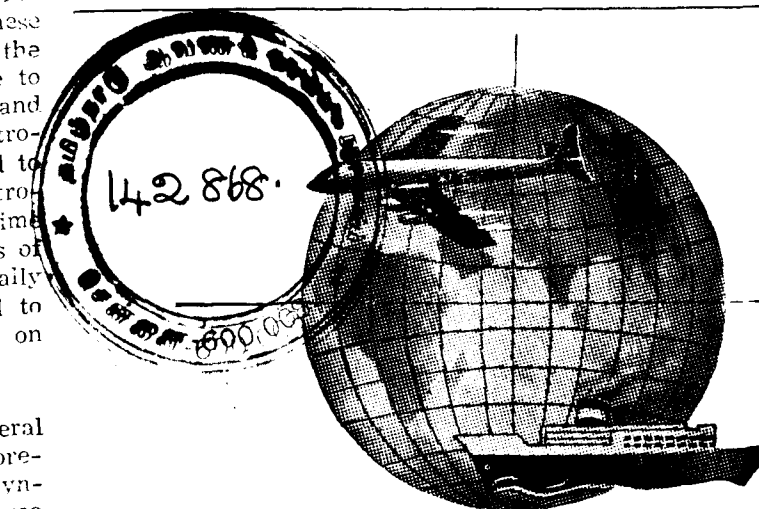
"For some time past Messrs. Kilachand Devchand and Co., Private Ltd., Bombay, have been investigating the possibility of Synthetic Rubber manufactured in India to meet the growing requirements of Rubber in the country. As a result of these efforts, the Company has been able to arrange for the technical and financial

collaboration of Messrs. Firestone Tyre and Rubber Co., Akron, Ohio USA in this PROJECT and further arrange for the entire amount of foreign exchange requirements from the commercial Banks in USA and financial institutions in UK.

The Scheme embodying the proposals for technical collaboration and foreign exchange finance in respect of this PROJECT was presented to the Government of India who have now approved the same. Application for the licence to implement this PROJECT as required under the Industries and Development Regulation Act was also submitted and the same has also been sanctioned recently.

"The PROJECT to begin with has a rated capacity of 20,000 Tons Per Year of G. R. S. Rubbers, Latexes and other Rubber products. It is proposed to expand it soon after to 30,000 Tons per Year. The project also envisaged the setting up plants viz for Styrene Monomer of 9,000 Tons Per Year and Butadiene of 22,500 Tons per Year which are required for production of Synthetic Rubber.

The estimated capital cost of the PROJECT to begin with is of the order of 13.5 Crores of rupees



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(about 28 Million Dollars) excluding working capital. The foreign exchange requirements will be about 7.5 Crores of rupees, of which Firestone's contribution will be approximately Rs 3 Crores. The required balance of foreign exchange is being largely covered by way of loans from US Banks and other investment houses in UK. A portion of the equipment and machinery will also be procured in India from indigenous sources.

The equity capital in Ordinary Shares will be about 4.5 Crores of which 75 per cent will be Indian capital. Messrs. Kilachand Devchand & Co. Pvt., Ltd., Bombay, and their friends will be subscribing 25 per cent and 50 per cent will be thrown open for public subscription. Messrs. Firestone Tyre and Rubber Co, Akron, Ohio, USA is subscribing the balance of 25 per cent in Ordinary Shares.

The Plant is proposed to be located at Bareilly in UP at a suitable site. The Plant is expected to be brought on stream in about thirty months.

The PROJECT for Synthetic Rubber is based on the use of Alcohol which is the principal raw material available in abundance in the country as a by-product of the large and growing Sugar Industry in India. Another important raw material for this PROJECT

is **Benzene**, the production of which is also growing as a result of the coming into production of the new steel Plants in the country. Approximately 14 million gallons of Alcohol will be required for initial production of Synthetic Rubber and this will increase to about 20 million gallons per year when the full capacity of G. R. S. Plant to 30,000 Tons per Year is reached. The PROJECT will thus help fullest utilisation of the distilleries capacity in the State and neighbouring areas.

Against the present indigenous consumption of Rubber of over 45,000 Tons per year, the Indian Natural Rubber production is of the order of 24,000 Tons Per Year.

The estimated consumption of Rubber by 1961 is expected to exceed 55,000 Tons Per Year and to about 75,000—80,000 Tons Per Year by 1966. The natural rubber production is also likely to increase to some extent in the country. However, in view of the increasing demand for Rubber as mentioned above shortage of Rubber in the country will increase sharply year by year and will require increasingly large foreign exchange for importing the same.

The proposed Synthetic Rubber Project will, therefore, not only help to meet to a considerable degree this growing demand of Rub-

ber in the country but also help to save over 5 crores of rupees per year in foreign exchange once the PLANT commence production and this will increase still further with increasing production in the PLANT."

Efforts are now being made to promote the Company with all speed so as to get on with the job. It would be observed from the above that the planning for Synthetic Rubber Industry in India has not come a day too early. It must however be mentioned that as of today of the total of rubber imported to meet the Indian requirements, the Indian manufacturers continue to give preference to the import of the Natural Rubber in preference to Synthetic Rubber even when the latter is available at a relatively cheaper price than the present pool price of Natural Rubber and in spite of the fact that Synthetic Rubber could be used for many of the applications including most types of tyres. As an instance it may be mentioned that the imports of Synthetic Rubber in 1957 and 1958 were of the order of about 3500 and 3800 Tons as against the imports of Natural Rubber of over 10,000 tons and 13,000 tons respectively. Since the proposed plant will be producing Synthetic Rubber it would be logical to assume that efforts will be made both by the Rubber manufacturers as well as by the Government to ensure that more and more Synthetic Rubber is used in place of imported Natural Rubber wherever possible so that the Industry becomes fully prepared to consume Synthetic Rubber that will be available in about 2 years from now. We are also considering steps to provide necessary Technical service to the Industry to enable it to switch over to synthetic Rubber as and where possible.

Another important factor about this Project is that apart from the significant interest of Firestone—our Associates in this project—we have been able to secure substantial loan finance to meet our foreign exchange requirements for this project from the private Commercial Bank and financing Institutions in USA and UK. Such assistance is expected to be of the order of over 9 million dollars. What is more this finance is generally made available for spending in any part of the world and not restricted to any one country as is the case with Import-Export Bank loans—which must be spent only in the States.

Synthetic Rubber production would help to introduce a basic Industry in the country for it is a key industry and is vitally essential to Defence. Apart from the fact that the Indian technicians will learn to master this new technology, the experience gained will prove invaluable to build other plants on the same lines and for production of newer type of Synthetic Rubbers like Diene (Polyiso Butadiene) and also the Natural Synthetic rubbers like the Firestone Coral (Polyisoprene Rubber) rubber when the need for them becomes manifest.

In recent years the steeply rising requirements of rubber all over the world, has necessitated the installation of Synthetic Rubber Plants in country like Germany, Italy, France and Japan as the natural rubber production has failed to keep pace with the growing demand. The situation in India with the limitations to stepping up the natural rubber production to cope with the rapidly increasing requirements of rubber is in no way different from this world trend. The Synthetic Rubber Project to be now established in India provides the solution to the problem and also indicates that, like other countries of the world, India will have to depend increasingly on Synthetic Rubber to meet its growing requirements.

There has been some concern regarding the advisability of adopting the Alcohol process for manufacture of Synthetic Rubber in place of the conventional process using petroleum Butane. The reason for this has been explained earlier. Also since as much as 20 million gallons of alcohol per year out of the present installed capacity of 52 million gallons would be consumed in just one plant, the importance of using indigenous alcohol to the economy would be obvious. As such a large quantity of alcohol is expected to be available only in UP which is the centre of Sugar Industry today it was logical to consider locating this plant at Bareilly in UP.

As for the cost of production of Synthetic Rubber it can only be stated at present on the basis of data available that it will be somewhat cheaper than the present price of Natural Rubber. However, considering other factors of use of Synthetic Rubber it is felt that economies of using Synthetic Rubber will be complementary to Natural Rubber. Another

advantage will be that as more supply of indigenous Rubber is available Industry will be able to utilise its plant capacities better than it is able to do today. Since it will be factory tailor made, Synthetic Rubbers produced will be of uniform quality and several grades of Rubbers and latices to meet different end use requirements of the Industry could also be produced consistent with their demand.

A significant feature of this Indian project is the need to produce the two important intermediate raw materials viz. Styrene and Butadiene in the same plant unlike the practice in the West where both Styrene and Butadiene are generally purchased from outside by the Synthetic Rubber producers. In the absence of such facilities in India the importance of producing these integrally in the Rubber Plant becomes obvious. This naturally imposes a heavier financial burden on this Industry.

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Finances of Paper Mills

(CONTRIBUTED)

HE decision of the Government of India to reduce the prices of paper and paperboard has been assessed at an amount equivalent to four months' cost of production less depreciation. When testing the adequacy of these profits to individual units among those costed by us, we found that there were some cases whose costs of production were somewhat high, due to such factors as comparatively small volume of output or high costs of raw materials or low efficiency due to age of the plants, and consequently their net realisation will be comparatively lower. As against such units there were also others whose costs are much lower and whose profits will therefore be correspondingly much larger than those provided for by us. These features are inevitable in a scheme of price fixation which aims at a uniform selling price for all units throughout the country".

It is, of course, desirable that the consumers should be enabled to get this essential commodity at reasonable prices. But this objective cannot be achieved merely by compelling the mills to sell at lower prices. It is the malpractices in the distributive trade that are largely responsible for the sharp rise in prices. The real remedy for scarcity and high prices lies in increased production. Will the Government's decision on the Tariff Board's recommendations help the mills to expand capacity and augment output? From the initial reaction to the official decision, it appears that the earnings of the mills will be severely affected. The Commission believes that a return of 12% on the capital employed will "provide the necessary incentive". This appears to be inadequate in view of the rising costs of production and the need for building up sufficient reserves for further expansion. The industry had asked for a minimum return of 25 per cent on employed capital. In its submission to the Tariff Commission, the industry had observed as follows: "The Companies should be in a position to distribute to Ordinary shareholders a dividend which, in relation to the current market prices of the shares, will yield a rate of return at least equal to that obtained on equity investment in other important industries. In fact, the return ought to be somewhat higher than this, for if the yield on paper shares is on a par with that in other industries, only established companies can hope to attract new equity capital. If all the paper companies are to obtain the capital they will require to reach the target of installed capacity set in the Plan, including the

would provide the necessary incentive. The working capital element in employed capital has been assessed at an amount equivalent to four months' cost of production less depreciation. When testing the adequacy of these profits to individual units among those costed by us, we found that there were some cases whose costs of production were somewhat high, due to such factors as comparatively small volume of output or high costs of raw materials or low efficiency due to age of the plants, and consequently their net realisation will be comparatively lower. As against such units there were also others whose costs are much lower and whose profits will therefore be correspondingly much larger than those provided for by us. These features are inevitable in a scheme of price fixation which aims at a uniform selling price for all units throughout the country".

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The Commission in its report has recognised the need for undertaking large scale-expansion of the industry, in order to meet the country's growing demand for paper. The Commission's observations on this aspect deserve to be quoted. "We have considered this matter carefully and have arrived at the decision that profit at 12 per cent on employed capital

new companies that will be formed, the paper Industry must be in a position to offer prospective investors a somewhat higher rate of yield than that obtainable from investment in other industries". But in the light of the official decision, prospects of reasonable dividends do not appear to be encouraging.

It will be unfortunate, indeed, if in an expanding economy a major industry like paper is unable to step up output because of restrictive policy. It is estimated that the demand for paper and paperboard excluding newsprint and strawboard during 1960, 1961, 1962 and 1963 is likely to be of the order of 350,000 tons, 400,000 tons, 460,000 tons and 520,000 tons respectively. Perhaps, the demand may be higher than these estimates, considering the rapid rise in literary and general education. But if, owing to unremunerative prices, mills are unable to step up output substantially and the new units are not encouraged to be established, it will result in a set-back not merely to the paper industry but to our economic progress.

STATEMENT SHOWING PROFIT TRENDS IN PAPER MILLS.

Bengal Paper Mills Co., Ltd., Calcutta.

Year ending 31st December	Net profits (Rs. in lakhs)	Dividend Percent
1954	17.70	12½
1955	23.89	18½
1956	9.04	10
1957	17.54	12½

Deccan Paper Mills Co., Ltd., Poona.

Year ending 31st March	Net profits (Rs. in lakhs)	Dividend Percent
1955	3.25	5
1956	3.10	5
1957	1.56	4
1958	2.35	6

Gujarat Paper Mills Ltd., Ahmedabad

Year ending 31st March	Net profits (Rs. in lakhs)	Dividend Percent
1955	1.93	8
1956	0.84	8
1957	0.53	8
1958	0.67	8

Indian Paper Pulp Co., Ltd., Calcutta

Year ending 31st March	Net profits (Rs. in lakhs)	Dividend Percent
1955	10.13	14
1956	13.92	14
1957	15.51	14
1958	9.10	10

Mysore Paper Mills Ltd., Bangalore

Year ending 31st March	Net profits (Rs. in lakhs)	Dividend Percent
1955	3.74	7½
1956	4.62	10
1957	7.75	10
1958	8.59	10

Orient Paper Mills Ltd., Calcutta

Year ending 31st March	Net profits (Rs. in lakhs)	Dividend Percent
1955	106.90	10
1956	123.37	12½
1957	104.98	15
1958	75.35	15

Paper and Pulp Conversions Ltd., Poona

Year ending 31st March	Net profits (Rs. in lakhs)	Dividend Percent
1955	0.89	6
1956	2.39	6
1957	2.52	9
1958	3.50	10

Pudumjee Paper Mills (Private), Ltd., Bombay

Year ending 31st March	Net profits (Rs. in lakhs)	Dividend Percent
1955	0.39	3
1956	0.84	5
1957	0.75	4
1958	1.08	6

Punalur Paper Mills Ltd., Punalur

Year ending 30th June	Net profits (Rs. in lakhs)	Dividend Percent
1955	1.10	5
1956	3.51	5
1957	4.60	7½
1958	14.92	10

Rohtas Industries Ltd., Dalmianagar

Year ending	Net profits (Rs. in lakhs)	Dividend Percent
October 31, 1954	74.15	15
October 31, 1955	64.99	15
October 31, 1956	80.21	15
Seventeen months ended March 31, 1958	114.79	20

Shree Gopal Paper Mills Ltd., Calcutta

Year ending 31st December	Net profits (Rs. in lakhs)	Dividend Percent
1954	49.86	15
1955	69.43	12½
1956	45.09	12½
1957	49.44	12-2/5

Sirpur Paper Mills Ltd., Hyderabad

Year ending 30th June	Net profits (Rs. in lakhs)	Dividend Percent
1955	22.83	5
1956	15.30	5
1957	14.80	5
1958	26.87	6½

Star Paper Mills Co., Ltd., Calcutta

Year ending 30th September	Net profit (Rs. in lakhs)	Dividend Percent
1954	4.34	7½
1955	6.35	12½
1956	7.87	10½
1957	6.97	6

Titagur Paper Mills Co., Ltd., Calcutta

Year ending 31st March	Net profit (Rs. in lakhs)	Dividend Percent
1955	78.30	17.50
1956	95.29	21.25
1957	95.87	23.71
1958	88.92	23.80

Tribeni Tissues (Private), Ltd., Calcutta

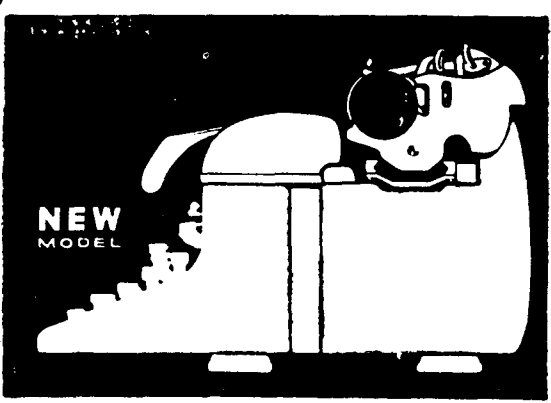
Year ending 30th September	Net profit (Rs. in lakhs)
1954	—1.30 (loss)
1955	3.44
1956	30.55
1957	28.54

Upper India Couper Paper Mills Co., Ltd., Lucknow

Year ending 31st December	Net profits (Rs. in lakhs)
1954	1.73
1955	0.35
1956	0.57
1957	—0.84 (loss)

*This company has not declared any dividend since its formation.
*This company has not declared any dividend for the last six years.

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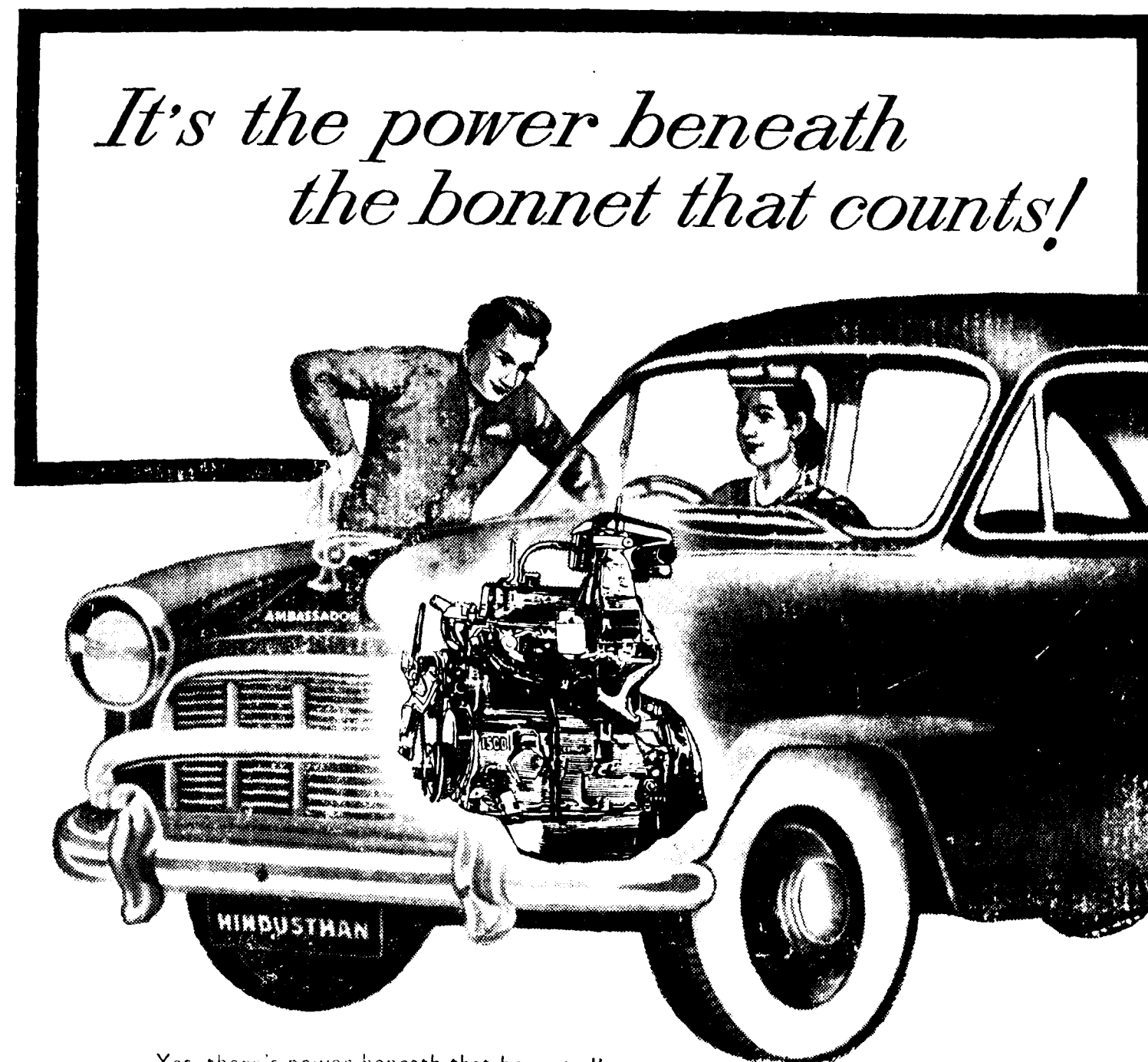
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Exports of Engineering Goods: Need for Perspective Planning

THE Union Minister for Commerce and Industry has drawn pointed attention to the encouraging trend of engineering exports in his address to the meeting of the Export Promotion Advisory Council held last September. The rising trend is of significance, because it has occurred during a period in which total exports were on the whole stationary or declining. And during the current year, engineering exports have been increasing at a much faster rate than other lines. Exports during the current year are expected to reach Rs 600 lakhs as compared with the average of Rs 450 lakhs during the last three years. Encouraged by this experience, the Engineering Export Promotion Council has fixed the export target for 1960 at Rs 800 lakhs and for 1961 at Rs 1200 lakhs. The fact that Engineering Exports are increasing is also of significance for another important reason. It provides a reliable index of the progress of the Indian engineering industry as well as the quality of its products. It is possible that import restrictions may help to maintain a buyer's market within the country. But Indian manufacturers can compete outside only on the basis of quality, price, delivery and services. The fact that a number of them have been able to do so successfully, in the teeth of keen competition from branded products made in Western countries, is certainly matter for gratification. The countrywise distribution of the exports as well as the range of items that are exported increase this feeling of satisfaction. During the current year exports to all the zones, such as West Africa, South East Asia, North and Central America, Africa, Europe, Oceanic Islands and West Indies, have registered an upward trend as pointed out by Mr B. S. Agarwal, Chairman of the Engineering Export Promotion Council at a Press Conference in Calcutta. It is of considerable significance that exports had increased substantially even in respect of highly industrialised countries of America and Europe. The total value of such exports had increased from about Rs 3 lakhs in the first half of 1958 to more than double that figure in the corresponding period of 1959. The goods which are being marketed in Western countries were Sewing Machines, Sugar and Tea Machinery, Hardware, Tractors Parts, Hurricane Lanterns, Diesel Engines, Umbrellas, Air Conditioning Units, Cutlery and E.P.N.S. ware and Art, Brass and Copper ware.

When considering the prospects of engineering goods exports, it should be kept in mind that the domestic market can even now absorb most of the items which are being exported and, as industrialisation gets under way, with improvements in standards of living,

exports of many lines of consumer goods could be maintained only by denying the requirements of the home market. In these circumstances the compulsion to export arises principally out of the shortage of foreign exchange. The industries which have been built up on the basis of imported materials or components have to earn at least a part of the foreign exchange required to pay for the imports necessary to keep them going. The need to maintain trade links with India's neighbours in the changing pattern of international trade is also another reason for the development of exports of engineering goods whose importance will become more evident in the course of the next few years. Like India, these countries are also anxious to build up their own manufacturing industries. From the point of view of India's exports to these, it means that emphasis will have to be shifted from traditional lines of consumer goods to those which assist the process of industrialisation of these countries.

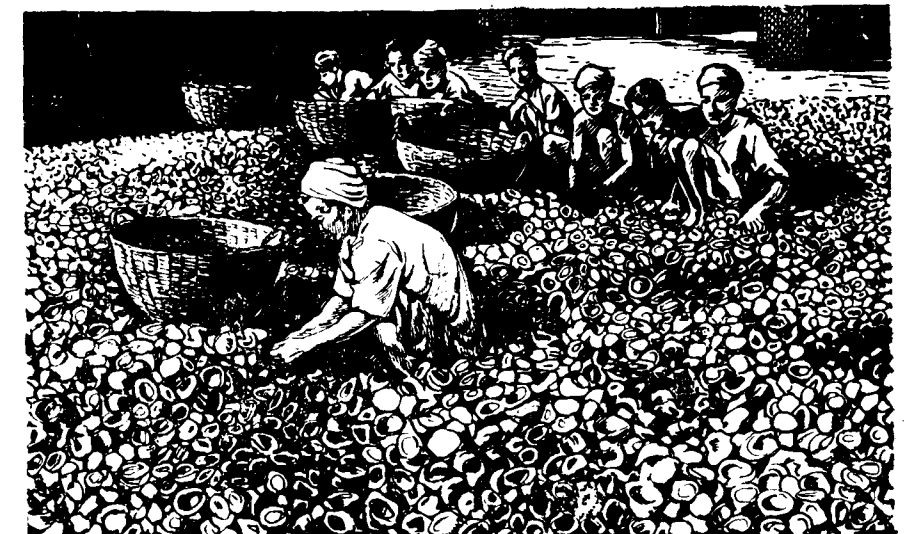
While India for reasons indicated above is not yet in a position to offer the complete range of engineering goods we are now producing, it is a matter for satisfaction that the following broad categories of goods are available for export, namely:

Industrial Machinery,
Heavy engineering goods and machine tools.
Agricultural and irrigation equipment.
Heavy and light electrical goods,
Light mechanical goods.
Non-ferrous based and miscellaneous items.

The trend of production is also relevant to a discussion of export prospects. In his address to the Standing Committee of the Central Advisory Council of Industries, Mr Manubhai Shah, Union Minister for Industries, referring to the steady rise in industrial production, made special mention of the very great rise in the output of machine tools, industrial machinery, and in engineering goods in general. As against estimated increase in the general index of industrial production in 1959 by nine points to 148, (with 1951 as base year) the index of Machine Tools stood as high as 896, Industrial Machinery and Machine Manufacture at 429, General Engineering at 278 and Electrical Machinery at 302. Early in December 1959, the Lok Sabha was informed by the Railway Minister that there was surplus capacity in the country for the manufacture of wagons and locomotives, and export prospects were being explored. A Railway Ministry delegation had recently visited countries in South East Asia in this connection, and enquiries had been received from Thailand and Burma.

A special scheme for the Export of Engineering Goods is administered by the Engineering Export Promotion Council set up in 1955. Issue of import licence and allocation of advance quotas of iron and steel to exporters of engineering goods is made on the recommendation of the Council. The Council has also rendered valuable service in exploring export prospects in various regions by sending expert delegations and publishing reports of their findings. The Council so far has sent six delegations and published twelve reports. The latest is the report of the delegation to Australia, New Zealand and Indonesia. One point which most of the reports emphasise, and requires the special attention of Indian manufacturers as well as the Government, relates to the lack of effective publicity abroad of Indian products. For instance, the latest report mentioned above says: "Excepting isolated cases, the delegation found complete lack of knowledge about Indian Engineering Industries and export potential." The report urges Indian manufacturers to embark on a concentrated publicity drive to

make their products known abroad, utilising every available media of publicity, as well as through personal contact with local importers and trade organisations and through participation in trade fairs and exhibitions. Regarding the last, active steps are in fact being taken in organising exhibitions. An Indian Engineering Exhibition was opened in Teheran last June which evoked widespread interest. Earlier a similar exhibition was held in Baghdad. Indian Engineering goods are also on display permanently at the Engineering Export Council's showrooms in Mombasa and Rangoon as well as at the showrooms attached to the Government of India Trade Centres at places like Cairo and Colombo. But there is still scope for expansion of measures to make Indian Products known in foreign markets, and especially the range of goods that this country can offer. In this connexion it has been urged that in all such International Exhibitions or Fairs, the Exhibition Directorate should take part on behalf of the country as a whole. In the absence of a co-ordinating authority, the report points out, the presentation of



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Indian products, whether engineering or non-engineering gives a dismal picture.

Another difficulty that Indian exporters had to encounter was the heavy incidence of freight on engineering goods. The Council's efforts to secure reduction of shipping freights have been partially successful. A number of shipping lines and conferences have agreed to reduce freights on all engineer-

ing goods or on particular items like sewing machines, diesel engines, pumps, electric fans, G. I. buckets etc.

The progress achieved in the export of engineering goods in 1959 can be gauged from the following tables which give figures of exports for first seven months of 1958 and 1959 classified according to broad categories of commodities and regions.

TABLE I

Commodity.	January to July,	
	1958.	1959.
	Rs.	Rs.
Base Metals:		
Iron and Steel	2,339	81,25,672
Non-ferrous (semis and finished)	29,71,673	37,06,013
Light Engineering Goods	1,10,00,183	1,37,82,930
Heavy Engineering (Machinery, Structural fabrications, agricultural and irrigation equipment)	32,92,242	37,98,812
Miscellaneous manufactures	55,87,982	75,86,201
Region.		
South East Asia	64,87,727	1,26,27,523
West Asia	80,30,580	95,39,323
Africa	35,04,719	45,88,440
North and Central America	32,61,809	78,56,060
South America	71,180	56,034
Europe	9,69,481	15,99,323
Australia	99,012	35,603
New Zealand	18,654	34,356
West Indies	71,756	1,09,285
Other Oceanic Islands	3,39,501	5,53,681
Grand Total	2,28,54,419	3,69,99,628

(Source: E.E.P.C. Home Bulletin, dated 1st September, 1959).

It will be noticed that during 1959 exports have increased in respect of all categories of commodities and in respect all regions except Australia and South America. During the first seven months, total of exports had increased by more than half. These figures support the assessment made by the Chairman of the Export Promotion Council, Mr B. S. Agarwal, that if Government pursued a bold policy and provided at least the same extent of assistance as was given in countries like Japan or Germany. Indian engineering goods could meet the competition in foreign markets with greater confidence. The figures of exports achieved so far also justify the targets that have been set up for the 1959 and the succeeding two years of which details are given in Table II.

While the progress achieved so far is no doubt encouraging, and reflects great credit on the industry as well as on the helpful guidance of the Export Promotion Council, there is still a long way to go before engineering goods exports could match the contribution of traditional lines of export to the country's earnings of foreign exchange. And that is the goal to be aimed at, which can be achieved in a few years if appropriate developmental measures are adopted in organising production at home as well as exports. With the larger output of iron and steel which is now assured, it should be

possible to build up exports of castings and components for the big industries in Europe and America.

Alertness and adaptability should be the keywords if the scope for exports that is unfolding itself is to be fully utilised. A constant watch should be kept on changing patterns of demand and exports should be channelled accordingly. Already a falling off has been noticed in the exports of consumer items like hurricane lanterns, G.I. buckets etc to certain regions. This should be taken as a pointer of the trend which will gather strength with the growing industrialisation of the underdeveloped regions of the world.

Expansion of exports will be facilitated, if the authorities always bear in mind that trade is not one-way traffic, while clamping down import restrictions. For instance, prospects of building up exports of a wide range of engineering goods to New Zealand will be considerably improved, if India could relax the restrictions on import of dairy products and especially milk powder. This is moreover a measure which will have a direct bearing on the improvement of public health in India.

Trade relations with the developing countries can be built on the enduring basis of mutual benefit, if proper attention is paid to the needs of their economic development. Most of the countries in

this category have drawn up plans of industrialisation. While, as already indicated, this may mean diminution of the market for consumer items, it will also create a demand for a different category of goods which India is now increasingly in a position to supply. For instance electrification will set up demand for electrical machinery like transformers, motors, cables and a whole host of accessories. The development of oil crushing industry will set up demand for oil crushing machinery, textile industry for textile machinery and so on. The loss of external markets for staple consumer items need not cause any great worry, for the growing domestic market can absorb all that it is possible to produce. Future developments of

exports must be directed towards supplying the materials and equipment which will be of direct assistance to our neighbouring countries in industrialising themselves. This should be done even at some sacrifice; for India has received assistance from the advanced industrial nations of the West towards her own industrialisation, and it should be our duty and privilege to pass on the benefit. Such a policy will involve close study of the economic development plans of these countries, to which our export programmes should be dovetailed. The Engineering Export Promotion Council, which has already published excellent surveys of markets, might undertake this essential task of perspective planning of engineering exports.

TABLE II.

Comparative Statement Showing Exports and Targets (Commoditywise).

Items.	EXPORTS.		TARGETS.	
	1958.	1959.	1960.	1961.
(1)	Rs.	Rs.	Rs. Lakhs	Rs. Lakhs
(2)	(3)	(4)	(5)	
Sewing Machines	14,61,971	17,13,533	50.00	75.00
Electric Fans	23,24,002	30,11,842	50.00	75.00
Hardware—including locks, windows and door fittings	20,89,724	15,95,651	45.00	60.00
Diesel Engines & Pumping Sets	7,90,467	7,64,830	25.00	35.00
Deepwell turbine pumps and Centrifugal Pumps	2,50,250	3,10,859	20.00	25.00
Hand Pumps	24,132	4,07,453	8.00	12.00
Electrical Goods other than Fans	3,23,814	5,84,213	30.00	40.00
G.I. Buckets, Bath Tubs and other G.I. Products	12,54,344	13,15,675	24.00	34.00
G.I. Pipes and Fittings	310	2,71,470	10.00	15.00
C.I. Pipes and Fittings and other Castings	9,78,676	8,58,026	28.00	45.00
Steel Furniture	16,11,485	15,80,701	25.00	40.00
Aluminiumware	36,26,591	31,99,845	50.00	70.00
Bicycles and Parts	2,32,932	1,75,843	20.00	30.00
Dry Batteries and Components	18,32,706	10,53,190	25.00	35.00
Steel Trunks	24,80,116	20,87,216	30.00	40.00
Pressure Lamps and Hurricane Lanterns	4,24,068	2,16,620	10.00	15.00
Agricultural Implements and Small Tools	5,45,221	4,83,176	12.00	18.00
Cutlery and Stainless Steelware	8,29,855	6,51,620	15.00	20.00
Air Conditioning units and Water Coolers	2,46,255	2,37,398	10.00	15.00
Nonferrous Fittings and Wares	8,93,045	5,50,485	10.00	15.00
Umbrellas	49,770	7,20,201	10.00	15.00
Crown Corks	2,24,749	1,10,176	10.00	15.00
Tea Machinery	2,41,975	9,57,108	16.00	20.00
Textile Machinery	3,15,164	3,24,975	10.00	15.00
Sugar Mill Machinery	7,279	10,009	10.00	15.00
Jute Mill Machinery	8,14,399	7,94,637	12.00	18.00
Oil Mill Machinery	6,905	3,105	5.00	7.50
Machine Tools	34,227	1,33,743	5.00	7.50
Razor Blades	44,497	21,776	10.00	15.00
Ghamellas	...	...	10.00	15.00
Railway Stores	...	...	5.00	7.50
Pressed Steel Tanks	...	...	10.00	15.00
Bus Body Kits	9,96,012	3,59,195	115.00	200.00
Auto Parts	1,61,37,047	2,41,71,772	...	...
Others	4,09,91,988	4,86,76,343	750.00	1,114.00
Total	4,09,91,988	4,86,76,343	800.00	1,200.00

Special Export Programmes which are in the nature of long-term contracts such as Transmission Line Towers, electrical and railway installations, etc.

Total	4,09,91,988	4,86,76,343	800.00	1,200.00
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In France they say:

"Better pay the baker than the doctor"

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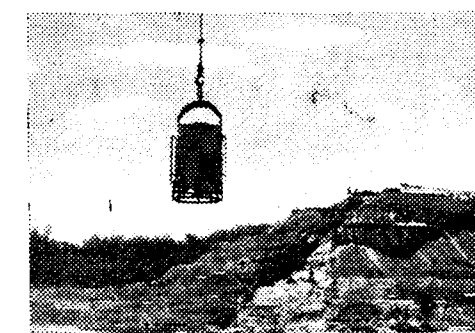
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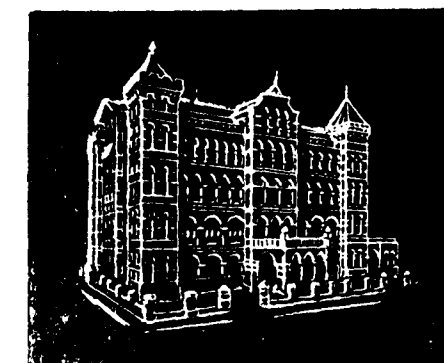
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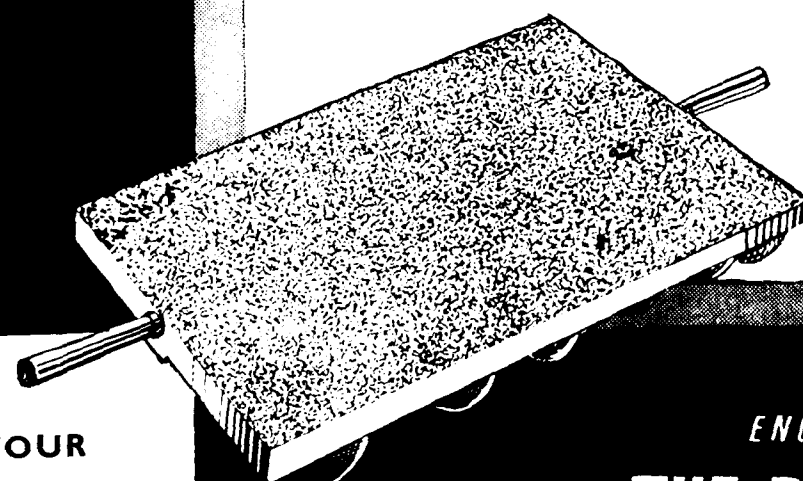


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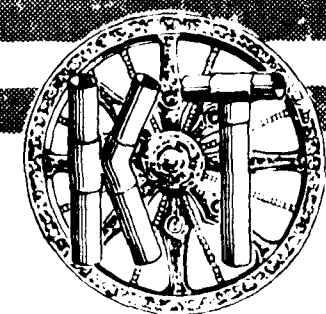


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Training for Treasure Hunt

By T. R. RAMACHANDRAN

Hacking their way through the tangled jungle of Rakkha in Singhbhum district, Bihar, a small team of young men daily set out to learn and perfect the modern techniques of unravelling India's hidden mineral treasures.

Supported by a backlog of academic knowledge on geology, the team members consist of new recruits to the Geological Survey of India (GSI) and other state departments, as well as a few junior staff members of Indian universities. After their three-month field training under a recurring GSI programme, initiated nearly a decade ago, they will join a group of 300 full-fledged Indian geologists engaged in the mapping and exploration of India's vital mineral deposits.

In charge of the camp this year is a senior geologist of GSI, Dr. M. R. Subramanyam, who is assisted by a number of his colleagues and other foreign technicians. Cooperating with him in part of the training is Dr. John P. Albers, who is on loan to GSI by the U. S. Geological Survey (USGS).

An untiring Minnesotan of 40, Dr. Albers has serious and forthright convictions about his profession, and the influence of his methods helps explain why trained geologists are becoming more important for any country's development.

As he blazed the trail in the rock-imbedded jungle amidst wild sundappled foliage and shrubs he seemed particularly oblivious to the risks involved in combing through the thicket.

"That is the life of a geologist," he said. "Great is the risk we take, but greater is the reward."

Tramping the jungle with a strange familiarity, he had only an aerial map which showed mountains like molehills. "Keep a mental note of where you are," he told the trainees, "that is essential for the geologist. You must be able to locate your position accurately if your geologic work is to be meaningful."

A dense jungle where perhaps, a layman gets lost, does not care the wandering geologist. Small ridges or hills, nullahs and bypasses serve as tips on the location. As for direction, the compass is there to guide him.

Even in its absence, the geologist has not completely lost his bearings, Dr. Albers said. Pointing to the watch, he chuckled: "Point the hour-hand at the sun and midway between the hour-hand and 12 o'clock is due south. In a pinch that may guide the geologist as well as a layman anywhere he wants to go."

His arm waving vigorously, Dr. Albers next bade the trainees follow him up the rugged slope as well as down the steep incline. After a novice's dusty, breath-stopping scramble down the steep, I learned paradoxically enough, that it is more tiring to get down the stony path than to climb up.

As we moved on, we came across heaps of iridescent waste rock left over from the mining of copper ore carelessly strewn near an erstwhile mine. This prodigious investment of time and labour had been left behind thirty or forty years ago. A fall in the price of copper caused the mine to be abandoned at that time.

Open Air Classes

Equally engaging as this intrepid probe into areas, charted and uncharted, are the open-air briefings by the Indian and American experts to initiate the youngsters into a study of nature's outcrops. Chiselling pieces of sandstone, they explain how by pressure and shift, the bedding attitudes have been changed in the geologic past from horizontal to steeply inclined. It is such features that make the study of stale rocks fascinating.

As the instructors brief at convenient spots, the trainees squat on the ground and plot their exact location on the aerial photographs they carry. Their object is to learn how to map geology in a complex mineralized area. The case study this time was a particular occurrence—the quartzite—whose geologic features showed interesting variations within a distance of 300 feet.

Following this tense purposeful activity, the geologists, jaded and exhausted, return to their tents, with legitimate pride of their rich outdoor experience. "I wonder at times," said one of them, "whether I am paid merely to visit beautiful places and enjoy scenery. But when it gets to tough going as this, I have no qualms about my job."

Geologist's Kit

One of the items highly useful in the geologist's kit is the stereoscope, with which he is required to become absolutely familiar before he starts on his pacing and checking with aerial photographs. The instrument consists of a pair of lenses mounted on a frame, which helps the viewer obtain a three-dimensional view of the landscape. Two photographs of an area taken from different stations on the air, are synchronized to produce the stereoscopic effect. Later, identifying trees, hillocks and ridges helps him map with accuracy the

spots he visits. Properly correlating these trends with other geologic data, he gets the overall pattern of rock distribution, structure, and mineral occurrences in an area.

Some aerial photographs, which form such an invaluable guide to the geologist in his work, are supplied by the Survey of India. Photographs are highly useful both for reconnaissance and detailed operations. The Forestry Division utilizes aerial photographs to identify groves of trees in untracked areas, and the Survey of India to prepare topographic maps. The mapping carried out by the Geological Survey during the past years covers over 3000 square miles of manganese belt in Madhya Pradesh, the copper belts at Khetri, Rajasthan and Singhbhum, Bihar, and the pyrite belt of Chitaldrug, Mysore.

Simidih Training Camp

Simultaneous with the training in Rakkha, another camp of geologists receive orientation in the smoky areas of Simidih, 15 miles west of Dhanbad. Accompanying the officer-in-charge, Mr. K. D. Shukla, was Dr. Paul Richards, another member of USGS made available to India by the U. S. Technical Cooperation Mission (TCM).

Dr. Richards has specialized in the techniques of measuring and describing sedimentary rocks, which form part of the overall training in the prospecting for coal, gypsum, and other metallic deposits such as, manganese and iron. A Ph.D. from Cornell University in Ithaca, New York, he is assigned to a two-year term with GSI from April, 1958.

"Much of India's mineral wealth," Dr. Richards reiterates, "occurs in sedimentary rocks, and the intelligent prospecting for these minerals depends on the geologists' ability to correlate and map them. I feel the young men with whom I have worked are fully aware of these potentialities."

In addition to training the geologists in the field, Dr. Richards has carried out preliminary research work in the Kurnool-Cuddapah area of Andhra Pradesh. He has also advised the junior GSI officers in problems relating to the study of coal deposits in Bihar, West Bengal, and Madhya Pradesh. During the coming months, he will be working with geologists in the Chanda area in Bombay, before a drilling programme for the prospecting of coal could be outlined.

Himalayan Hunt for Copper and Lead

Another field of geologic exploration now being carried out by

GSI is up in the difficult steep terrain of the Himalayas. Work is done from the Agar camp on the mountain side from which an excellent view of Trisul and Nanda Devi could be had. The camp is 12 miles from Pithoragarh, where porters carry luggage, supply and equipment to the camp site.

Arriving India in October 1957, Mr. Lawrence Blade, another TCM technician, has cooperated with a GSI officer, Mr. M. N. Sehgal, in conducting a detailed geologic study of copper, lead, and magnetite occurrences in the Dewal Thal-Agar area of the Almora District. His work has included both detailed and small scale geologic mapping, geochemical sampling, and sampling of all mine workings and newly dug test pits and trenches. Emphasis has been given to evaluation and correlation of these various occurrences and on determining their relationship to the overall geologic framework to ascertain their economic potential.

A similar and related field of special study, known as tectonics, is conducted in Garhwal and Kumaon districts by another group of GSI geologists. The project relates to the study of how the succession of rocks in the Himalayas are deformed and piled up by folding and faulting. Working together in this special study are Messrs. R. N. Kacker, D. N. Setti, and A. P. Tewari, of Geological Survey of India, and a fourth member of TCM, Mr. James F. Seitz.

In many ways, their assignment is spectacular. They work in the higher precincts of the Himalayas, where geologists have seldom been before. Mr. Seitz work with them in mapping significant segments of the mountain range and brings home his specialized knowledge of tectonics. During the first season, the group has made traverses from the vicinity of Hardwar and Mussoori to Lansdowne, Srinagar, Puri, and up the Alaknanda river to Joshimath and Badrinath. They have also conducted special surveys in the Raniket, Kusani, and Baijnath areas.

As an aid in recording the geologic features in the areas which he visits and which he may never get back to, Mr. Seitz keeps sequential photographic records of the outcrops. He uses a Polaroid camera which takes photographs (3, X4,), developed inside the camera in 60 seconds. The prints that are thus ready are labelled and kept for future reference.

Just past mid-point in a two-year assignment in India, Mr. Seitz finds the field work and the geologic problems to be exceptionally interesting. Here he continues work similar to the project



GSI trainees discussing with TCM geologist Paul Richards the methods to be used in measuring the sedimentary rocks, before starting the day's training work in the Sinidih camp. Looking on is Dr. M. R. Subramanyam (extreme left), GSI's senior geologist in charge of the training camp.



Trainees starting out for field work from the training camp, Sinidih.



TCM geologist, Dr. John Albers, holds out his hand to show the structure of gneiss bedrock in Rakkha mines area, Singhbhum.



Trainees determining the geologic structure of sedimentary rocks near the Jharia coalfield.



Mapping geology on aerial photographs is part of the field training for GSI recruits in the Rakkha mines area, Singhbhum. Here trainees use the stereoscope to obtain a three-dimensional picture from the air photographs. Mr. P. Srivatsava, an instructor, looks on.



Examining the rocks on the dump of abandoned copper mines near Rakkha.



GSI trainees setting up a theodolite instrument to make preliminary surveys for topographic maps.

India's Oil and Natural Gas Commission. But the recent success in the Cambay area owes much to the geophysical work of the Geological Survey. Also, in the Jwalamukhi area, Punjab, the present exploratory drilling is a sequel to earlier GSI findings.

In its own sphere today, GSI has at least a dozen districts where surface interpretations must be put to the acid test and the existence of ore deposits either proved or disproved. Drilling operations will soon follow at selected sites in these areas. TCM equipment including three diamond drill rigs, have been received in India and are already on their way to the sites to augment the efforts in drilling.

GSI Expansion

This enlarged scope of operations by GSI has entailed addition to its staff. Originally started in Calcutta under British rule, the office had barely 12 officers around the turn of the century. Today it employs a total of 368, including 277 geologists, 30 geophysicists, 28 chemists, and other technical personnel. An addition of 333 technicians has been sanctioned by the Government, for which recruitment is under way.

Considerable expansion is further envisaged in its operation and personnel, following the increase in emphasis of GSI activity under the Second and Third Five-Year Plans. It includes the creation of a foreign geology division to assist whenever called for, the neighbouring countries such as Afghanistan, Nepal, Burma, and Indonesia; extension of training facilities to students majoring in geology and junior teaching staff in different universities; and the establishment of three self-sufficient regional offices with workshops, laboratories, libraries and museums, in Calcutta, Lucknow, and Hyderabad. (The regional offices at Lucknow and Hyderabad have already been set up). The total GSI strength by the end of the Third Plan will be 1400.

In all these operations, training geologists is of fundamental importance. As Dr. Albers says, with modern mining equipment, exploiting deposits of minerals is easy. But locating the deposits in the first place is a matter requiring something more than a fancy witch stick or the hit-or-miss technique of the old-time prospector. The only practical answer is a geologist trained to spot prime target areas by astute evaluation of geologic, geophysical, and geochemical evidence seen on the surface, backed by an organization equipped to carry out drilling of these areas.

Has TCM helped much in this direction? "We hope we have been successful at least in a small way," says Dr. Albers modestly, "and we hope that they (Indian technicians) will be successful in a big way."

back at home, where he serves USGS. He finds the Himalayas are very similar to much of the rugged Alaskan mountains where he has worked for the last ten years. The common features, he says, are in the ruggedness of the terrain and the difficulties it entails in getting from one place to another. The highest point he has reached on the Himalayas this summer is 17,000 feet.

Other Explorations

The significance of these recently geared-up operations of GSI is obvious in the context of the growing needs of the country for more mineral raw materials. Following Independence, a policy of intensive exploration and assessment of minerals was adopted by the Government of India, and to implement this policy, GSI has been gradually expanded and entrusted with much greater work.

Consistent with this programme of expansion, GSI has carried out, during the last 12 years, more detailed investigations of mineral deposits on large scale mapping, and has tendered geological advice to important engineering projects. In the field of special investigation, it has focussed on the copper belts in Bihar and Rajasthan, the mica mines of Bihar, Rajasthan and Andhra, the iron ore areas in Madhya Pradesh, Orissa and Bihar, the manganese areas in Madhya Pradesh, the lignite belt in Madhya Pradesh and Saurashtra, and the gold mines in Mysore.

To assist GSI in its expanded operations, the programme of TCM cooperation began early in 1951, in response to official requests from the Government of India. While, in the first place, this programme has made available the advisory and cooperative services of U. S. technicians and geologists assigned to GSI, it has also taken the form of in-service advanced and specialized training for Indian geologists in the United States.

Thus, since its inception, nine geologists, one engineer, and one

geochemist from the United States have worked with GSI for periods ranging from two months to 5½ years. During the same period, 20 Indian geologists, two chemists, and one geophysicist from GSI have been sent to the United States for advanced in-service training.

Under the programme, major emphasis has been placed on training individuals of varying education, background, interest and experience, for varying lengths of time. Here in India, some 20 to 25 geologists have been given intensive on-the-job training for periods ranging from a few weeks to more than a year.

Another special programme of TCM work connected with GSI has included the technical assistance given to the Indian geologists in the methods and techniques of groundwater investigation. This work was entrusted to Mr. G. C. Taylor during 1951-55, who assisted in making several investigations and later in establishing the All-India Ground Water Exploratory Programme initiated in 1954. He was then followed by Mr. Arthur Garrett, engineer and Mr. Paul H. Jones, geologist, who assisted specially in the field activities of tube-well operations. Other facets of work carried out by the U. S. TCM experts in India have included suggestions and assistance to set up a laboratory to conduct geochemical analyses of soil, rock and water samples, seminar lectures to large groups of GSI staff, and detailed geological surveys and reports with emphasis on mapping, evaluation, and correlation of various occurrences.

Also, equipment worth Rs 9.6 lakhs, including diamond dials, microscopes, radiation counters, compasses, binoculars, chemicals and incidentals have been provided to GSI under the programme.

An Assessment

The absolute results of the programme are difficult to assess.

said Dr. Albers, TCM Project Chief for GSI. "Most of the GSI participants in our programme feel they have benefited from it, and I believe that they are doing, and will continue to do, better work for GSI as a result."

"The value of a geologist, however, is certainly not well understood by the public in India," rejoined Dr. B. C. Roy, Director of GSI. The Survey, one of the oldest in the world has set up, during its existence of over a century, high standard of work both in quality and quantity. Its present operations could match well with those of any advanced industrialized country.

Role of GSI

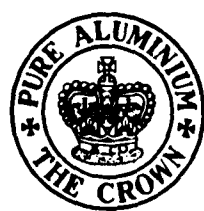
Highlighting some of the main successful projects of the Survey, Dr. Roy noted, the Survey has carried out a revision and remapping of the two most important coalfields of India—Jharia and Raniganj and is now engaged in extensive drilling, especially in South Karanpura. The Survey's mapping and drilling programmes have proved the existence of coal and lignite beds in Jammu and Kashmir, and gypsum deposits in the Nagpur area in Rajasthan. A large magnesite deposit has also been discovered in the complex structural belt in the Almora District.

In the field of engineering geology, the principal contribution of GSI relates to the evolution of procedures of foundation treatments for the Hirakud dam, the longest in the world, and the Bhakra dam, the highest in the world to be completed. Through the Survey's Groundwater Exploration Section, initiated in 1954 under a separate TCM agreement, the groundwater conditions in various parts of the country have been studied systematically by exploratory bore-holes.

Drilling operations for oil are carried out by the Government of

A Compromise Formula on Community Development

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THERE are two distinct views on Community Projects, either of which is not without an element of exaggeration and so neither of which is likely to go out of currency. The exaggeration in one view is that Community Development has the potentiality of becoming a full-fledged "people's programme", while the exaggeration in the other view is that it has no such potentiality. In the first view, which may be described as idealistic and political, the postulate is that in the post-intensive phase (that is, after five years of intensive block development) and thereafter the programme will be carried forward by the people through their own institutions like panchayats and cooperatives, while in the second view, which may be described as realistic and administrative, the postulate is that the people may not so easily grow to be self-reliant communities shouldering the burden of their own development. A third view, which does not miss the hard core of truth in either of those two views, may well be that the programme should indefinitely continue partly as an "administered programme" and partly as a "people's programme".

This is not a compromise formula suggested by way of jest or jibe. It is a pregnant and pragmatic formula for the following reasons:

(1) To fashion panchayats and cooperatives as efficacious instruments of rural development would be a tremendously difficult job. Here, the inhibiting factors, the potency of which has yet to be fully recognised, are party politics, caste stratification and inequalities of land ownership. Together these three factors constitute a formidable combination, the day-to-day implications of which would have to be seen to be believed. Cooperation, village self-government and community effort can be a partial antidote to these evils only so long as they do not try to achieve all-pervasive and radical development with its frightening impact of a "revolution" but stop just at the point of the greatest common measure of agreement based on the minima acceptable to all sections. Otherwise they will themselves get wrecked in the process, and an opportunity for neutralising those evils will thus be lost.

(2) There is the fourth factor of general rural poverty which is reflected in very low per capita incomes with their negligible saving potentials. There will, therefore, be need for liberal State financial aids to panchayats and cooperatives. And State assistance and patronage on a large scale will necessarily and rightly involve guidance, or regulation, or control, or participation, or administration, or whatever else it may be, by the State, the more so when the very initiative to organise these people's

institutions has mostly come from the State. Where the initiative for establishing people's institutions has not come from the people themselves through spontaneous appreciation, on their part, of the need therefor in a milieu of general education (which, incidentally, is itself a long-term process), the artificially State-stimulated institutions will have necessarily to be State-controlled or State-partnered if they are not to be later superseded or liquidated on a large scale for inefficiency or mismanagement.

(3) The only relevant justification for State control of or participation in people's institutions is one of ensuring judicious and effective use of State aids channelled through them to agriculture and other rural sectors. There is no particular virtue in this circumlocutory technique which, sooner or later, will lead to a situation in which an army of government officers and inspectors

virtually manage these institutions. A "people's programme" (of development works and welfare activities) which cannot, for practical reasons, be left to be strictly administered by the people themselves will not be a more efficient substitute for an "administered programme" in which people's participation can be ensured through their periodical consultation and willing contribution in money, material or labour. To load the panchayats and the cooperatives with too many functions would be to make them bite more than they can chew, and that would be an invitation to general frustration.

For these reasons the Community Development programme which has thus far been rather inefficiently administered—inefficiently because of the difficulties of administrative coordination between the different Government departments concerned with developmental and social services and

also because of the distorting implications of the elusive goal of a "people's programme"—may have to be administered more efficiently through a single agency in the field directly dispensing aids and maintaining development works. As a corollary, this should involve an indefinite extension of the post-intensive phase (that is Stage II for which the present schematic five-year Government allotment per block is Rs 5 lakhs as against Rs 12 lakhs per block in the intensive phase, that is Stage I). In other words, the Community Development agency should be made a permanent part of the administrative apparatus. All State aids and loans, if any provided by the Departments of Revenue, Agriculture, Irrigation, Industries, etc., should be channelled through the Community Development agency which may be expected to acquire an integrated overall picture of village needs and of all the resources available thereof including people's contributions, if any. In the field, this agency should also periodically consult a general assembly of villagers on their needs and ensure, where possible, their moral commitment to make voluntary contributions in men, material and labour towards the construction and/or maintenance costs of all development works like schools, dispensaries, roads, minor irrigation works, compost pits, community halls, reading rooms, etc. This agency should also directly dispense State credit, if any, to small farmers, cultivating tenants and labourers, and village artisans.

As a corollary, again, the role of panchayats and cooperatives would need to be redefined. The functions of minor panchayats, for example, should be strictly limited to the civic field—street lighting, water supply, sanitary activity and first-aid in the medical sphere—for which they could command adequate resources by way of their own local levies and by way of government grants. Schools, rural dispensaries, maternity and child welfare centres, family planning clinics and other welfare institutions and development works in the area of a minor panchayat or a group of minor panchayats should be directly managed and maintained by the Community Development agency. The functions of major panchayats could cover, besides street lighting, water supply and sanitary activities, the day-to-day management of welfare institutions like schools, dispensaries, etc., under the overall administrative control of the Community Development agency. The development works as such in the major panchayat areas should, however, be managed and maintained by the Community Development agency which, incidentally, should also have the right

TABLE-A.

Coverage of Community Projects.				
Series.	No. of Blocks Allotted.	No. of villages covered.	Population covered in million.	
C. D. Blocks including special multi-purpose blocks:				
1956-57	...	252½	36,017	18.6
1957-58	...	189½	26,651	11.8
Stage I Blocks:				
1954-55	...	20½	2,977	1.8
1955-56	...	190½	26,143	13.3
1956-57	...	491	66,815	33.3
1957-58	...	604	65,922	40.0
1958-59	...	225	22,387	14.6
Stage II Blocks:				
1952-53	...	210½	26,904	15.4
1953-54	...	62	7,693	3.9
1955-56	...	159½	21,438	12.4
Total	...	2,405	3,02,947	165.1

TABLE-B.

Cumulative Government Expenditure and People's Contribution under the C.D. Programme from its Inception to September, 30, 1958.

State.	No. of blocks reporting progress.	Estimated target expenditure in Rs. crores.	Cumulative expenditure incurred in Rs. crores.	Col. (4) as percentage of Col. (3).	People's contribution value in Rs. crores.	Col. (6) as percentage of Col. (4).
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Andhra Pradesh	209	9.21	8.55	93	5.05	59
Assam	57	3.93	4.47	114	1.70	38
Bihar	269	12.27	9.66	79	9.49	98
Bombay	238	14.84	14.73	99	5.33	38
Kerala	69	4.01	3.17	79	1.17	37
Madhya Pradesh	212	14.35	13.19	92	4.50	34
Madras	151	6.54	6.08	93	2.21	36
Mysore	129	6.88	5.16	75	1.80	35
Orissa	122	5.15	4.79	93	0.99	21
Punjab	127	8.38	7.02	84	7.66	109
Rajasthan	110	5.80	6.41	111	5.18	81
Uttar Pradesh	370	17.01	10.78	63	17.19	159
West Bengal	128	5.68	5.80	106	1.96	34
Jammu & Kashmir	32	1.25	1.09	87	0.13	12
Union Territories	55	3.65	2.48	68	1.42	57
Total	2,278	118.95	103.38	87	65.98	64

to collect a development levy confined to medium and big land-owners.

The role of cooperatives in community development should also be redefined. Cooperative credit societies, for example, should cover mostly medium and big landowners who are in a position to put in more deposits and contribute adequately to the share capital. State agricultural credit should be made available to credit societies strictly in some relation to their share capital, the deposits they have attracted and the total cultivated area covered by their membership. Whether marketing should be integrated with credit is a matter of practical policy. Cooperative farming of any type should be a voluntary affair of the cultivators themselves. State agricultural credit intended for small farmers, cultivating tenants and labourers and village artisans should be mostly made available to them directly through the Community Development agency.

The suggestions thus far made are based on the thesis that State-initiated community development should be a continuous and continuing process without any time-limit to the post-intensive phase. This thesis can also be justified on the ground that lack of financial resources will stand in the way of development being carried forward by the people themselves. In a way this is supported by the following observations contained in the recent

report of the UN Mission on Community Development in India.

"During many discussions, the Mission was impressed, as noted earlier, by the lack of financial resources in the village itself to carry out necessary public works. The Mission was aware of the considerable efforts made under the first Five-Year Plan, and to some extent under the second Five-Year Plan, to achieve certain targets through voluntary contributions. For a number of reasons, this element of voluntary contribution by villagers had lost its original appeal. It seems clear that villagers in Stage II blocks will have to reconsider their whole financial responsibility for further planning and development."

It would be naive to believe that an outlay of Rs 12 lakhs over five years in a Stage I block will have laid such an impressive foundation for further development that a large enough surplus could arise within the block itself for financing it. After all, an average annual expenditure of just Rs 2.5 lakhs on a whole range of welfare and development activities in a block consisting, on an average, of 110 villages, 75,000 acres of cultivated land and 70,000 people cannot be expected to make any significant impact on the rural situation of poverty and under-development. If the continuing need for State financial support is recognised, there is no

reason why it should not continue to be provided on the required scale by a permanent community development agency with its accumulated fund of experience and integrated approach to rural development. The State should thus continue to discharge its financial and administrative responsibility on its own, wherever necessary, and in collaboration with people's institutions, wherever possible, in the post-intensive phase and thereafter. Any abdication, by the State, of that responsibility in the mistaken belief that wholesale functional decentralisation will deliver the goods is least likely to be vindicated by experience. The most that seems to be possible is a measure of decentralisation in administrative decision-making and project implementation in collaboration and/or consultation with the people or their institutions at the village level.

Perhaps it may be thought that it is too late in the day to argue thus against the policy of "democratic decentralisation" which is already under implementation. It is not too late because the transfer of power to panchayats charged with the planning and execution of a community development programme is yet to take place on a wide scale. There is still time for second thoughts at least on the score of some of the functions to be discharged by the village panchayats. Although the UN Mission has come very close to appreciating the risks involved in this rapid decentralisation of power, it seems

to have taken it as something final and irrevocable and has, therefore, proceeded to advance its constructive suggestions on that basis. Still, their observation that "the chief risks in any transfer of power (in what is, in the main, a service programme, as can be seen in the development of municipal services in many cases) are a slowing down of progress in certain directions, timidity in respect of raising and spending money and over-emphasis on what may prove to be sectional advantages", has not lost its relevance. The Mission has thus raised, by implication, the doubt whether "the impetus of the earlier community development programmes, which were characterised by a sense of urgency and the multi-decentralisation". Whether or not "purpose approach" would not be lost in the wake of "democratic decentralisation". Whether or not this policy comes to be modified betimes, possibly in the light of experience in selected areas, the doubt raised by the UN Mission lends added support to the argument of this article. If, according to the Mission, "it is characteristic of the Indian administration that once a policy has been decided on, swift executive action follows", it is also characteristic of that administration that, not uncommonly, swift executive action is swiftly reversed or modified. It is not too late, therefore, to hope for a modification of the policy governing panchayats and community development.

Coffee

COFFEE is an important commercial crop of India and a major industry of the Mysore State where it is largely confined. The total annual crop is worth about Rs 18 crores, of which about Rs 7 crores are earned by way of foreign exchange. Nearly 100,000 wage-earners and salaried employees directly depend on the coffee industry.

The importance of the industry as a foreign exchange-earner has grown in recent years following the rapid rise in production. The weight of the crop has increased from 15,300 tons in 1946-47 to 46,000 tons in 1958-59—a rate of increase not paralleled by another agricultural crop in India. The acreage has also gone up from 216,916 to 280,000 during the same period, not to speak of the marked rise in the yield per acre from 150 lbs to nearly 400 lbs. The overall picture is very encouraging, as will be clear from the following table (figures in tons):

Year	Production
*1959-60	47,725
1958-59	46,000
1957-58	37,000
1956-57	42,200
1955-56	34,052
1954-55	25,100
1953-54	29,555
1952-53	23,565
1951-52	21,235
1946-47	15,300

*Estimated figure, given in metric tonnes.

Two things happened in coffee cultivation to lift production to such a high level. One was the adoption of progressive practice and manuring. The other was the progressive selection of high-yielding strains. It will be interesting to note here that, a decade ago, the coffee crop was barely sufficient to meet the internal consumption; but the position has now undergone a complete change. The planters hold the view that, for the next few years, the crop will continue to show similar spectacular increases, as the new plantings of high-yielding strains are getting matured. It will, therefore, be no wonder if the Indian production of coffee reaches the 60,000-ton mark within the next few years.

In considering the prospects for coffee, India, like any other producing country, has inevitably to take a look at the affairs in the Coffee World. For, the coffee world is increasingly becoming "One World" and any development anywhere has its repercussions and effects in all other producing centres. The steady rise in production has now brought a situation in which, despite the large increase in internal consumption, there is still an increasing surplus remaining with the Coffee Board for disposal.

Is There Too Much Coffee?

So long, as the world market was short of coffee and world prices were better than the international level of prices, the problem was not a difficult one. But, once the world price falls below the Indian price, a new situation will arise necessitating a reorientation of marketing and price policies, especially when there is every indication that the output of crop will grow at a much rapid pace. The problem of surplus can, therefore, be solved only by raising internal consumption and by increasing exports.

But a curious phenomenon is, despite the record output, internal prices have been rising in recent months and that at a time when the prospect of finding profitable disposal of the surplus abroad at reasonable prices is becoming more difficult, consequent on the sharp rise in output abroad and the resultant huge accumulation of stocks and fall in world prices.

In this connection, it may be said that only recently the Board of Directors of the International Coffee Agreement decided to promote coffee consumption, being faced by a world surplus. The Board agreed to levy 25 cents per bag exported from Latin American members of the Agreement and 15 cents per bag from African members. But these measures have not succeeded in lifting the price of coffee, which is now at 202sh per cwt—a little above the October low of 189sh for Uganda Robusta.

Although the move to restrict exports has prevented prices from sliding right down, the Board has not solved the problem of surplus production. As a matter of fact, the production is expected to be even greater in the 1959-60 season, with total world exportable crops estimated at some 50 million bags and a carryover from this season of some 36 million bags. Again, enough surplus is reported to have accumulated in stocks in various countries. It is said that, even if there will be no production in 1960, there will still be enough stock to meet the entire world demand and leave something over for the succeeding year too.

It is, however, encouraging that, despite the increasing competition in the world markets, India has been able to sell the bulk of her exportable surplus of coffee. From an average of 1,863 tonnes for the three years ended 1952-53, exports have been stepped up to 14,749 tonnes for the three years ended 1958-59. The Coffee Board believes that the exportable surplus will double itself to at least 30,000 tonnes by 1965. The Board also believes in the building up of a foreign market. Whatever the production of coffee may be in the world, there is always a place and price for quality coffee which, in India, is generally known as Plan-

tation. There are only a few comparable varieties in the world, such as Kenya "A" and Columbian Medellin Excelso.

From the enquiries India is getting, it is clear that Plantation quality will always be in demand. This can be done, not by any haphazard methods like exporting away all Plantation coffee that India produces in one year or by limiting sales to countries which pay the highest price in any particular year. There must be a continuity in our exports and this, we cannot establish at the current rate of production in a larger measure than is done at present. A consistent and continuous expansion of the export market can be made only if we expand our production of quality coffee.

The stress on the importance of Plantation coffee for building up a foreign market does not, however, mean that the other types are to be neglected. The exportable varieties of Indian coffee are Plantation A, B and C, Arabica Cherry Flats, Robusta Cherry Flats and Robusta Parchment Flats. Actual quantities of each type available for export are, however, being determined by the annual production and consumption in India.

The following surpluses were available during the past three crop seasons (figures in metric tonnes):—

	1956-57	1957-58	1958-59*
Plantation	11,038	9,595	8,168
Arabica			
Cherry	3,324	3,273	2,978
Robusta	1,109	1,413	5,757
Total	15,471	14,281	16,903

*Export allocations.

There are both quality-conscious and price-conscious markets abroad. While Plantation is undoubtedly in greater demand, there are countries, which are more interested in Cherry quality, are the Middle East countries and in Robusta by Italy. If we are to build up a market for Indian coffee in these countries, we must necessarily set apart a minimum quantity of each of the types for meeting their demand from year to year.

It is a known fact that an attempt is now being made to bring about a world agreement for the restriction of production and regulation of exports. This, as we have found in the case of tea, is only a temporary solution, while the permanent one is naturally the expansion of the coffee market.

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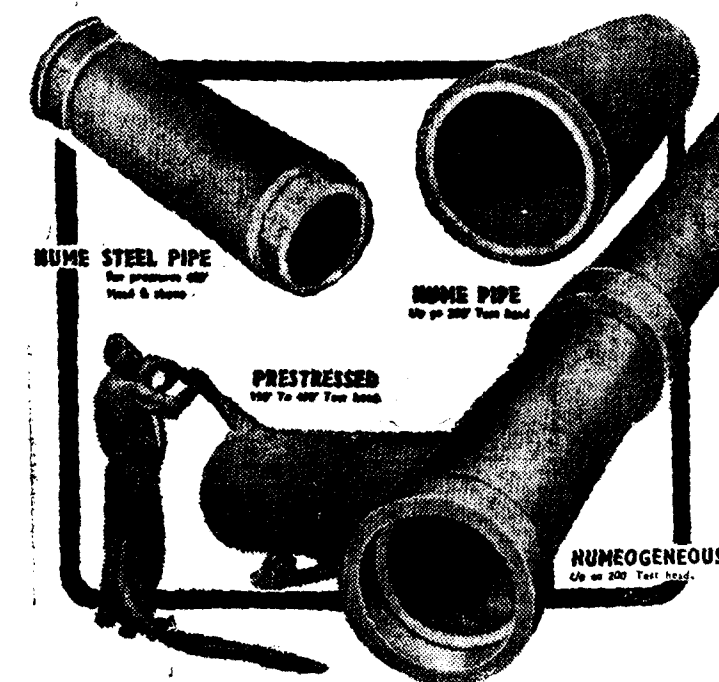
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TABLE C.
Total Cumulative Physical Achievements in C. D. Blocks in all-India upto
30th September, 1958.
(Number of Blocks: 2,278).

Serial No.	Description.	Unit	Physical Achievements for all blocks.	Average achievement per block.	Cumulative achievement per quarter.
Agriculture:					
1.	Improved seeds distributed	'000 Mds.	15,798	Mds.	624
2.	Chemical fertilisers distributed	do.	39,039	do.	1,541
3.	Improved implements	'000 Nos.	1,175	Nos.	48
4.	Agricultural demonstrations held	do.	4,851	do.	191
5.	Area under green manuring	'000 Acres	4,150	Acres	187
6.	Compost pits dug	'000 Nos.	5,015	Nos.	198
Animal Husbandry:					
7.	Improved animals supplied	'00 Nos.	456	do.	18
8.	Improved birds supplied	'000 Nos.	627	do.	25
9.	Animals castrated	do.	4,281	do.	169
10.	Animals treated	do.	30,042	do.	1,185
Social Education:					
11.	Adult literacy centres functioning	do.	87	do.	34
12.	Adults made literate	do.	2,908	do.	117
13.	Reading rooms opened	'00 Nos.	451	do.	18
14.	Community centres started	'000 Nos.	103	do.	41
15.	Youth and Farmers' Clubs	'00 Nos.	847	do.	33
16.	Number of members in youth and farmers' clubs	'000 Nos.	935	do.	42
17.	Mahila Samitis	'00 Nos.	191	do.	8
18.	Number of members in Mahila samitis	'000 Nos.	299	do.	13
19.	Village camps	No.	20,562	do.	99
20.	Number of villagers trained in camps	'000 Nos.	1,014	do.	40
Rural Health and Sanitation:					
21.	Rural latrines in use	'000 Nos.	507	do.	20
22.	Drains constructed	'000 Yds.	18,615	Yds.	735
23.	Smokeless chullahs constructed	'00 Nos.	1,978	Nos.	89
24.	Village lanes paved	'00 Sq. Yds.	8,450	Sq. Yds.	334
25.	Drinking water wells constructed	'000 Nos.	129	Nos.	51
26.	Drinking water wells renovated	do.	195	do.	77
Communications:					
27.	Kacha roads constructed	'00 Miles	786	Miles	31
28.	Existing kacha roads improved	do.	914	do.	36
29.	Culverts constructed	'00 Nos.	311	Nos.	23

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Jute

The Jute Industry

THE Indian Jute goods industry can look back on the year that has just passed with considerable satisfaction. The factor that has been mainly instrumental in bringing about the change for the better is the remarkable headway that has been made in jute production in the jute year 1958-59. A bumper crop had been harvested in that season and consequently the industry was assured a plentiful supply of its raw material. But a comfortable raw jute position would have been of little practical significance if foreign offtake of manufactured goods was poor. For, our jute goods industry is still largely dependent on exports for the disposal of its output. The outlook in this regard seemed rather gloomy in the early part of the year as stocks of heavy goods began to accumulate in mills go-downs. But from round about the beginning of the second half of the year demand for sackings smartly picked up with the result that by the end of November total stocks stood at a new low level for many a past year. The most heartening thing was that stocks of sacking goods were reduced to much less than a month's production of this category of goods.

Generally speaking prices for jute goods during the year ruled at levels which allowed a fair margin of profit for mills. This is not to say that prices had been stable throughout the year. As a matter of fact price stability again eluded the industry and trade during the last year as it had in many a previous year. The early months of 1959 witnessed depressed price levels especially in sacking goods partly due to lack of foreign enquiry for this category of goods and partly due to an easier raw jute market which was adversely affected by the knowledge that the 1958-59 jute crop had been a bumper one. Again toward the close of the year prices were pushed up steeply on apprehensions about raw jute shortage during the current season and mills found themselves faced with a situation in which they were to buy raw jute at such exorbitant prices that there was little left in the shape of profit from the sales of their manufactures.

A striking feature of the working of the industry last year was the continued uptrend noticeable in domestic consumption of goods. This is a healthy trend as an

expanding domestic market will stand the industry in good stead in times of lean overseas demand. The story, however, will not be complete if the role of modernisation in the recent improvement of the industry as a whole, is not mentioned. Thanks to the concerted efforts put forth both by Government and the industry, nearly 55 per cent of the mills have been modernised and consequently the increase in efficiency has been apparent for some time now. The modernisation programme is going on apace and it is expected that the looms working at present would be fully modernised by the end of the Second Plan.

The market for hessian was active in the first half of the year as will be evident from the fact that in the twelve months ended June 1959 hessian despatches totalled 433,900 tons as compared with the totals of 381,000 tons and 402,300 tons for the years 1957-58 and 1956-57 respectively. The second half was comparatively a dull period because of the prolonged steel strike in the US. Even so burlap consumption in US during the first 11 months of 1959 was

higher at 817 million yards as compared with 761 million yards in the corresponding period of the previous year. Even though the trend of hessian stocks in the last five or six months of the year indicated a decline in offtake despite a steady transfer of hessian looms to sacking production, hessian stocks even at the end of November were considerably less than a month's production of this category of goods. US burlap consumption in November was encouraging and it is quite on the cards, now that the steel strike is over, that burlap consumption in US in coming months may show an uptrend. Argentina, another important consumer of Indian hessian is yet to buy the bulk of its requirements and it is expected that this country may show increased interest in the New Year with the improvement of its foreign exchange position.

Sacking goods which were a source of worry for the industry throughout the first six or seven months met with good support later on. Much of the improvement in the statistical position of heavy goods stemmed from the big Chinese purchases last year. This

country has purchased a total of 4,27,71,400 gunny bags last year from India and this is the highest so far. A study of Chinese purchases during the past few years does not yield any regular pattern. The heavy purchases of last year is all the more surprising, because China is itself a producer of jute goods and Chinese jute goods have figured in the export markets along with those from India and Pakistan. Not much reliance can be placed on the Chinese business and now that the relations between the two countries are none too cordial, this outlet for our heavy goods may not be available in 1960.

In assessing the outlook of our jute goods exports in the future one has to take note of Pakistan's growing productive capacity. Besides a plentiful supply of raw jute of an admittedly high quality, Pakistan is fast expanding its installed capacity in the jute industry. This country's jute loomage has increased sizably in recent years and it has planned for a further substantial addition in the next five years. Already Pakistan has scored heavily over our industry in many overseas markets and it would appear that if we are still able to sell our goods overseas, it is atleast partly because of Pakistan's inability to meet the demand in full. By virtue of the low raw material cost in the production of sacking, Pakistan is placed in a very advantageous position in world markets in this

PRICE TRENDS DURING 1959—HIGHEST AND LOWEST

	January		February		March		April		May		June	
	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest
	Rs.		Rs.		Rs.		Rs.		Rs.		Rs.	
HESSIAN:												
40" x 10 Ozs.	42.10	40.20	40.40	38.65	40.50	38.90	40.90	39.50	41.20	39.75	42.80	40.95
40" x 8 Ozs.	34.25	32.50	33.25	32.00	32.75	31.40	32.80	31.50	32.85	32.00	34.50	33.00
40" x 7½ Ozs.	32.25	30.30	32.85	29.65	30.25	29.30	30.25	29.10	30.80	29.85	31.75	30.00
SACKING:												
B. Twills	95.25	91.00	91.40	88.10	95.30	88.85	93.95	92.40	95.10	92.45	97.35	93.20
Heavy Ceers (Green)	97.50	93.25	93.50	87.25	94.35	88.25	94.50	92.75	94.75	93.45	99.00	94.25
Cornsacks	96.00	91.50	91.75	88.10	95.85	89.30	95.00	92.50	96.00	94.00	99.50	95.75
Cubans	116.50	112.50	112.50	109.00	114.00	109.00	117.00	113.50	117.00	115.50	121.50	116.00
A. Twills	115.50	111.50	111.00	104.75	112.75	105.50	113.00	111.50	113.25	110.80	118.00	113.00
L. Twills	110.00	105.50	107.00	100.25	107.00	101.00	105.50	103.00	105.25	103.75	107.00	104.00
D. W. Flours	113.75	112.00	113.50	108.25	113.50	106.50	110.85	109.25	111.50	108.25	112.50	110.25
Sugar Twills	109.50	106.50	107.50	100.75	105.80	101.00	108.00	104.25	107.00	104.00	109.00	104.50
RAW JUTE:												
Assam Bottoms	21.50	20.50	21.90	19.50	21.50	19.75	20.75	20.25	21.00	20.25	22.50	20.50
Northern Bottoms	21.00	20.00	20.75	19.75	21.25	19.50	20.50	20.00	20.50	19.75	21.75	20.00
Assam Middles	24.00	23.00	23.75	23.00	24.50	23.50	23.75	23.25	24.25	23.50	...	...
Northern Middles	23.50	22.50	23.50	22.75	24.00	23.25	23.50	23.00	23.50	23.00	...	...
	July		August		September		October		November		December	
	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest
	Rs.		Rs.		Rs.		Rs.		Rs.		Rs.	
HESSIAN:												
40" x 10 Ozs.	41.85	40.25	41.15	40.30	40.80	40.00	41.25	40.20	40.65	39.45	42.95	40.30
40" x 8 Ozs.	34.00	33.00	34.00	33.15	33.70	33.25	34.15	33.25	33.65	32.60	34.50	33.00
40" x 7½ Ozs.	31.50	30.75	31.75	30.80	31.35	31.00	31.65	31.15	31.50	30.25	32.10	30.70
SACKING:												
B. Twills	99.25	96.45	109.35	100.00	106.00	98.35	104.30	101.40	106.95	101.25	114.50	105.25
Heavy Ceers (Green)	101.50	99.00	108.50	102.00	106.00	101.50	105.50	102.25	112.00	105.00	111.00	106.10
Cornsacks	102.65	99.00	110.50	103.65	106.25	98.50	104.25	101.60	105.00	102.25	113.00	104.25
Cubans	121.00	119.00	129.00	120.25	128.00	124.00	126.00	125.00	127.75	125.25	133.00	127.00
A. Twills	117.50	116.75	123.50	118.25	122.00	119.00	122.50	120.50	128.50	120.50	138.50	129.00
L. Twills	110.00	106.50	120.00	110.00	116.25	110.75	116.00	112.50	118.25	114.00	126.00	117.50
D. W. Flours	114.50	111.00	121.50	115.15	121.00	116.50	124.50	122.00	128.25	121.75	132.50	126.50
Sugar Twills	111.00	109.00	119.50	111.50	119.00	113.40	118.75	116.00	119.25	115.00	129.50	117.75
RAW JUTE:												
Assam Bottoms	22.25	21.50	22.50	21.50	23.25	22.25	23.50	23.00	26.25	23.00	32.50	26.00
Northern Bottoms	22.00	21.25	22.25	21.50	22.75	21.62	23.50	22.50	25.50	23.00	32.00	25.25
Assam Middles	...	...	26.50	26.00	25.50	25.25	26.00	26.00	...	...	35.00	29.00
Northern Middles	...	...	26.50	25.50	25.00	24.75	...	...	...	...	34.00	28.50

category of goods. Against Pakistani sacking's twin advantage of quality and price, it is an uphill task for Indian sacking to find its way into the favour of consumers.

Apart from growing competition from Pakistan, the Indian industry has to reckon with the general trend especially among the Asian countries to become self-sufficient

in their requirements of jute products. According to a recent FAO survey, world production of jute is steadily going up with the number of participating countries in



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the jute production programme on the increase. World production of jute and allied fibres reached a record total of some three million tons in 1958-59 and the 1959-60 crop is expected to be a fraction higher still. Mainland China which has hitherto been an important market for raw jute from Pakistan and India, expects to step up its jute production to 514,000 tons by 1962 and thus attain raw jute self-sufficiency. The USSR which is another important buyer of both raw jute and goods has also plans for the doubling of its output of jute and allied fibres by 1960. Other countries where expanded production is expected in the coming season, according to the FAO survey, are Nepal, Burma, Thailand, Taiwan and North and South Vietnam. These trends only serve to emphasise the fact that our industry has to pay sustained and increasing attention to its export promotion. Gone definitely were the

days when we could leave the matter to be taken care of by the large ready demand for jute goods. Overseas consumers are now far from solely dependent on jute goods for their packaging needs and what is more, there are now more than one important supplier with whom they can place their orders. With the increase in competition, there is now a buyer's market in jute goods and consumers naturally prefer goods which combine quality and a fairly stable price level. India's record on both these counts are not above reproach. Complaints have been heard in recent years about the quality of our jute goods from two important consuming countries, Australia and the US. Such complaints spoil the reputation of our jute goods as a whole and it is incumbent on each and every manufacturer of jute goods in our country to ensure that not even a small consignment that goes out of the country does not conform

to unimpeachable standards. As regards the other important prerequisite to winning the confidence of overseas buyers, fairly stable price levels, our record is far from satisfactory. Toward the close of 1959, unbridled speculation seems to have gained supremacy in the jute markets. Despite authoritative indications of an adequate supply of raw jute, and imposition of strong measures to curb speculation, prices have been pushed up to uneconomic levels.

Prospects of raw jute availability were good at the commencement of the year as the 1958-59 jute crop was reported to be a bumper one. Jute production in India during the season amounted to 51.78 lakh bales as against 40.52 lakh bales in the previous year. The area under jute also showed an increase at 18.27 lakh acres as compared with 17.42 lakh acres in 1957-58. The average yield per acre too improved to 2.83 bales

from 2.33 bales. Mesta production totalled 15.81 lakh bales from an area of 8.51 lakh acres. Thus the total production of jute and Mesta in 1958-59 amounted to 67.59 lakh bales as against 53.43 lakh bales in the previous season. The trade estimate of the 1958-59 crop was a little higher at 69.02 lakh bales. With the carryover of 18.13 lakh bales from the previous season and imports from Pakistan amounting to 3.40 lakh bales the total availability of jute and mesta was placed at 91.45 lakh bales. During the period July 1958 to June 1959 mills consumed 64.17 lakh bales and exports were 0.43 lakh bales. Domestic consumption absorbed 2.32 lakh bales thus leaving a carryover into the next season of 24.53 lakh bales.

When the time arrived for the sowing of the 1959-60 jute crop, it was evident that the lower prices obtaining for raw jute in the country would have an adverse effect on the jute acreage. Weather conditions were also not quite favourable. Later in the season there were heavy rains in the growing areas but it would appear that the crop had not sustained much damage on that score. Even so, as the year was drawing to a close it became clear that the new jute crop was smaller than that in the previous season. The all India Final estimates of jute and mesta for 1959-60 published towards the third week of December, showed that the area and production of jute were 17.07 lakh acres and 45.48 lakh bales respectively and that the production of mesta was 11 lakh bales. Thus the supply of jute and mesta during the 1959-60 season is estimated to be about 81 lakh bales (1959-60 jute and mesta crop of 56.48 lakh bales plus carryover from previous season of 24.53 lakh bales). As the country's consumption of jute and mesta is estimated at 67 lakh bales, it has been pointed out that the raw material supply position in 1959-60 will be quite comfortable.

It is, however, to be noted that the production of jute during 1959-60, though less than last year's record production is the next best since 1953-54. Compared to the average of the preceding five year's estimates, the current year's area and production of jute show an increase of 1.1 per cent and 10.3 per cent respectively. Sustained efforts are being made during the past few years to grow jute by improved methods of cultivation and there is also now increasing awareness among jute cultivators of the profitability of taking advantage of the many facilities that have been made available by Government. Further jute production in the country is to be progressively stepped up in coming years. Jute target for the Third Five Year Plan has been fixed at 65 lakh bales—an increase of 10 lakh bales over the Second Plan target.

The industry commenced the year with a fairly heavy load of unsold stocks which stood at 109,700 tons comprising 15,800 tons hessian and 80,200 tons sacking. The end of January brought no relief as sacking stocks were again higher at 82,700 tons, with total stocks at 113,800 tons. A redeeming feature, however, was the continued good demand for hessian, the stock of which declined to the lowest level since November 1950 at the end of February to be placed at 15,500 tons. In order to reduce the rate of accumulation of sacking goods, mills were continuing the change from the manufacture of sacking to hessian begun in the latter part of 1958. But since sacking stocks were acting as a drag on the market, the IJMA decided to seal a further 1½ per cent of the looms from March 2, 1959. The step proved beneficial to the industry and trade and by the end of May, sacking stocks showed at very much reduced level of 61,400 tons. The month of June again brought matters relating to production to the fore. This time the indication was toward an increase in production as prospects for sacking exports seemed to be good. The decision was taken by the IJMA that mills should unseal 1½ per cent of their looms with effect from 22nd June thus bringing the percentage of sealed looms back again to 12½ per cent. Thereafter sacking goods were in the lime light with the stock figures showing steady decline from month-end to month-end. By the end of July, stocks of sacking had come down to 54,100. A section of opinion in the Indian World of jute was of the view that the unsealing of 1½ per cent was too inadequate to meet the changed situation. Finally the IJMA announced their decision to unseal a further 2½ per cent of the looms with effect from August 24. This time it was announced that the additional looms would be entirely devoted to the production of sacking. It was further announced that the 2½ per cent unsealing would be effective upto 2nd January 1960 only. The next three months witnessed further diminution in sacking stocks which were placed at the very low level of 28,700 tons as at the end of November. The IJMA announced in December that the resealing date for the 2½ per cent looms had been postponed to the first of February 1960. The industry closed the year with only 10 per cent of its looms sealed. The performance of hessian especially in the second half of the year was somewhat disappointing as month-end stocks showed an irregularly uptrend. As against the lowest level of 15,500 tons reached in February, stocks were above the 20,000 ton mark from May. At the end of November they were placed at 26,600 as compared with stocks at the corresponding date of the previous year of 17,300 tons.

Production of jute goods during the past year was almost on the same level as last year. Output

for the first 11 months in 1959 are placed at 957,900 tons as compared with 965,300 tons during the corresponding period of the previous year. A feature of the production pattern during the year is the lower output of sacking. Sacking production in the 11 months amounted to 457,800 as against 533,200 in the 11 months of 1958. Hessian output on the other hand is higher at 419,200 tons against 367,000 tons. It is to be noted that the improvement in the statistical position of sacking is also partly due to the lower production of this category of goods during the year. A study of the production figures from month to month during the past year will show that in the first couple of months the emphasis had been on sacking.

Despatches during the year under review have been at a slightly

higher level as for the 11 months they were placed at 997,400 tons as against 929,200 tons for the corresponding period of the previous year. Exports have been higher at 792,400 tons against 746,000 tons. Internal consumption has continued to show an upward trend. Already for the first 11 months of 1959 internal consumption has crossed the 200,000 tons mark having been placed at 205,000 tons against 183,200 tons at the corresponding period of the previous year. For the whole of 1957 internal consumption totalled only 179,200 tons. In earlier years such consumption was much less. As pointed out earlier, the rise in internal consumption is a healthy trend for the industry and it is a comforting thought that domestic offtake can now take care of about 20 per cent of the production of the industry. Indications are that internal con-

sumption will show a progressive higher trend in coming years.

The need for price stability always been prominently in view both by the industry Government. In order to counteract bear speculation, the I. continued the minimum se prices for jute goods fixed on February 1958 during the month of the past year. Following reports of a bumper crop the season 1958-59, speculative pressure on sacking goods increased from the last quarter of 1958 it became evident by the end of the year that minimum prices sacking could not be maintained without the help of other surer and the IJMA withdrew minimum prices on 4th February 1959. With the curtailment production between March June when 14 per cent of 1 looms were kept idle and



from the seed...

In the steel blaze of noon,
men of the earth 'drag the sun upon their backs',
toiling in the furrowed fields.

For a tomorrow, when the seed will burst to plant, flower and fruit.

For the fruits of tomorrow then, the striving, the effort.

For a world that offers a little more—

a little less of the care, a little more of the joy.

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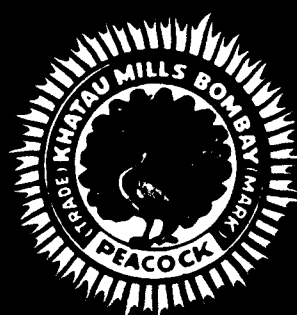
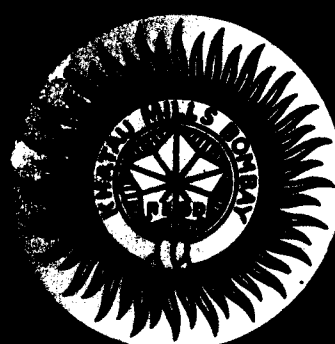
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subsequent pick-up in the demand for sacking goods, the problem of price stability lost some of its earlier urgency in the next eight or nine months. From November it again came to the fore with forecasts of a decline in jute production in the 1959-60 jute year. Speculators became active pushing up raw jute prices and a similar trend developed in the goods market also. The rapid rise in prices led to the imposition of special margins on 8th December by the East India Jute and Gunny Exchange. The margins were Rs 2.50 per 100 yards of hessian cloth, Rs 5 per 100 bags of sacking (B Twills) and Rs 2 per maund of raw jute in case closing prices for the three categories were at or above Rs 41.00, Rs 105.50 and Rs 29.00 respectively. The special margins proved of little avail and on the 10th December the EIJE announced enhancement of the margins. The enhanced margins were Rs 3 per 100 yards of hessian, Rs 6 per 100 bags of sacking (B Twills), and Rs 7 per maund of raw jute. Even after the enhanced margins had been imposed the uptrend in prices continued unabated. Government were also naturally perturbed over the steep rise in prices as they feared that wide fluctuations in prices would harm the overseas position of our jute goods which

were the second largest foreign exchange earner and the biggest dollar earner. At a press conference in Calcutta on the 23rd December, the Joint Secretary, Ministry of Commerce and Industry and the Jute Commissioner, Government of India, pointed out that there was no justification for the hectic rise in prices as supplies of raw jute would be quite plentiful during the 1959-60 season. It was also announced that Government had decided to permit the import of 2 lakh bales of jute cuttings from Pakistan. A Government Press Note issued on that day further assured the industry that Government would take such steps as might be necessary from time to time to see that full production of goods was maintained. The Government spokesmen made it clear that Government would not hesitate to take stringent measures to curb speculation. All the steps proved again ineffective and the uptrend in prices continued unchecked. On December 26 EIJE in a press note pointed out that the rapid rise in prices of jute was due to excessive speculative activities in the futures trading and announced further enhanced margins. Thus the special margins were raised to Rs 4 per 100 yards of hessian cloth, Rs 9 per 100 bags of sacking (B Twills) and Rs 10 per maund of raw jute.

STOCK OF GUNNIES (In Tons)

Month	1959			1958		
	Hessian	Sacking	Total*	Hessian	Sacking	Total*
January	16,800	82,700	113,800	29,700	53,700	96,600
February	15,500	79,900	110,800	27,200	53,300	94,900
March	17,000	72,600	106,800	24,500	54,800	94,300
April	19,600	68,200	105,400	20,400	60,200	97,500
May	21,400	61,400	99,400	25,000	71,800	112,100
June	23,700	57,400	95,400	31,000	87,900	134,000
July	26,000	54,100	92,800	19,900	89,600	121,900
August	24,800	45,700	81,200	19,000	86,400	117,200
September	25,500	42,700	78,700	17,000	80,200	109,000
October	29,100	32,500	72,000	17,800	77,100	107,100
November	26,600	28,700	65,200	17,300	75,500	105,400
December	22,100	25,700	58,700	15,800	80,200	109,700

*Includes other varieties.

PRODUCTION OF GUNNIES (In Tons)

Month	1959			1958		
	Hessian	Sacking	Total*	Hessian	Sacking	Total
January	40,000	45,200	92,100	34,400	57,300	98,300
February	36,900	39,500	83,600	30,100	49,300	85,300
March	38,100	37,200	83,300	30,400	49,500	85,300
April	38,100	37,900	84,400	30,900	50,600	88,000
May	39,700	37,900	86,800	34,200	53,700	94,900
June	37,800	35,800	82,700	31,300	45,900	82,400
July	40,500	39,900	89,600	35,300	49,000	89,800
August	37,600	41,900	86,900	35,400	44,300	85,200
September	37,500	48,800	92,600	35,900	45,700	87,300
October	36,400	46,000	87,900	33,300	43,000	81,800
November	36,600	43,700	88,000	35,800	44,900	87,000
December	...	...	...	40,100	49,200	96,500
Total	419,200*	455,800*	957,900*	407,100	582,400	1061,800

*Includes also other varieties.

†For 11 months.

GUNNY DESPATCHES (In Tons)

Month	1959			1958		
	Exports	Consumption	Total	Exports	Consumption	Total
January	63,700	24,000	87,700	55,600	19,900	75,500
February	64,200	21,300	85,500	67,400	18,400	85,800
March	64,600	22,200	86,800	65,500	20,500	86,000
April	65,600	19,500	85,100	65,900	18,000	83,900
May	72,800	19,600	92,400	61,700	17,800	79,500
June	70,300	16,300	86,600	46,000	13,800	59,800
July	76,200	15,200	91,400	88,000	14,100	102,100
August	84,600	13,600	98,200	77,600	11,700	89,300
September	81,100	13,400	94,500	80,600	14,600	95,200
October	75,200	19,400	94,600	67,300	15,600	82,900
November	74,100	20,500	94,600	70,400	18,800	89,200
December	...	...	...	69,800	22,300	92,100
Total	792,400	205,000	997,400	815,800	205,500	1021,300

*Total for 11 months.

Plastics

THE growth of Plastics is one of the most remarkable industrials. Within half a century it has grown to amazing proportions branching out in numerous directions. The versatility of the product which can be made softer than silk and harder than steel ensures for it a wide range of applications in industry as well as in manufacture of numerous articles of domestic utility. Plastics are now used in articles ranging from children's toys to nuclear weapons. In between come applications in building, engineering and chemical industries; electric accessories; transport and telecommunication (railways, automobiles, shipping, aircraft) telephone and radio; textiles; medicine and surgery; cinema and photography. Apart from industrial applications, plastics are also being used on the farm to increase agricultural output. American farmers have found a thin tough plastic film very useful as mulch (ground cover) for fruits and vegetables. Reinforced with fibre-glass mesh, it can be used as a covering for foodstuffs and as a roofing for all kinds of farm buildings. It may be some years before Indian cultivators are able to use plastics to protect their crops, or

as roofing material, but already the plastic bag used to pack insecticide power or less lethal materials is familiar in the remotest country districts. And plastics are finding increasing application in industry.

The crucial role of plastics in the industry of the future can be gauged from the importance assigned to it in the Soviet Seven Year Plan. Compared to the United States, Britain and West Germany, which have pioneered in this field, and made Plastics "big business," Soviet Russia is a late starter. But they are determined to catch up. The Soviet Seven Year Plan has provided for a seven-fold increase in the manufacture of plastic and synthetic resins. The economies that can be achieved by substituting plastics for metals in industrial applications ensure the continued development of plastics for the purpose, and are of particular significance for India which is short of non-ferrous metals. Soviet Planning authorities have estimated that one ton of plastics could replace about three tons of non-ferrous metals. In terms of money, 1000 tons of plastics replacing metal is estimated to result in a saving of five million rubles, while

metals cast in plastic moulds will effect a saving of 30 to 40 per cent of metal and reduce the cost by 650 to 1050 per ton of metal in the automobile industry alone.

The significance of the developments abroad has not been lost on India where the Union Minister of Commerce and Industry gave a Convention of plastic manufacturers in Calcutta the inspiring slogan of "Plastics for Industry", and outlined a big programme of development for the realisation of the following five objectives:

1. Production of construction materials, industrial goods, components and accessories.
2. Maximum self-sufficiency in tools and equipment.
3. Establishment of manufacture of full range of raw materials.
4. Maintenance of standards in raw materials, finished goods and industrial components.
5. Building up exports.

The growth of the plastics industry in India is mainly a postwar development. And its progress in the short period is not unsatisfactory in comparison with other industries. The total production of

plastics goods and accessories estimated at Rs 75 lakhs in 1946 has now increased to round about Rs 14 crores, including raw materials and finished goods. From the outset the Government have taken a keen interest in fostering its rapid development. A Plastics and Celluloid Industries Panel was set up by the Government just after the war, and a separate Directorate was also set up to assist and look after its development. After Independence, a Government sponsored delegation of plastics manufacturers visited U. K. and U.S.A., for studying the latest developments, and recommended the lines of development for the Indian Industry. Since 1949 the industry has been enjoying protection in regard to manufacture of phenol formaldehyde moulding powder. On the basis of the latest inquiry by the Tariff Commission, Government have decided to extend protection to the phenol formaldehyde moulding industry till the end of 1962. Protection extended to the plastic electrical accessories industry in 1949 continued till end of 1956 when it was withdrawn on the recommendation of the Tariff Commissioner. Plastic buttons industry was first brought within the scheme of protection in

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1951. The protective tariff was operative till the end of 1959, when the Government decided to discontinue protection on the recommendation of the latest Tariff Enquiry. Apart from tariff protection and the concession of duty drawback on raw materials given to specified lines of production, the industry in general has benefited from fact that imports of all types of finished plastics goods were greatly restricted, and special steps were taken by the Development wing to encourage indigenous manufacture by liberal imports of machines, moulds and materials. Under such favourable conditions the industry made considerable headway during the First Five Year Plan and, by the end of 1955, the manufacture of plastic goods had reached a stage when the materials required by it could be economically produced within the country, and the industry was in a position to extend substantial support for the development of the chemical industry. But the growth of the industry in the subsequent years was stunted by the foreign exchange shortage which caught the Second Plan in the mid-riff. While imports of essential materials had to be curtailed, their indigenous manufacture in many cases was only in the planning or prospecting stage.

By the end of the First Plan period there were more than 80 firms engaged in plastics moulding industry, as against 40 in 1948

and, of these 80 firms forty moulding firms were on the active list of the Development Wing of the Union Ministry of Commerce & Industry. The industry was concentrated mostly in Bombay and Calcutta. The manufactures included a wide range of products including radio cabinets, telephone receiver sets, gramophone records, injection and blow mouldings of polythene, spectacle frames, fountain pens, tooth brushes etc. Production of compression and injection moulded goods had increased from 0.37 million gross in 1948 to 3.60 million gross in 1956. Apart from moulded goods, manufacture of other plastics items for industry were also started during this period. As for instance, PVC (polyvinyl chloride) plastic coated cables, wires and flexibles, leather cloth, phenolic resin laminates, polyethylene films for packing lay flat tubings etc.

The importance of the plastics industry was recognised by its inclusion in the programmes for industrial development under the Second Five Year Plan. And the emphasis was shifted to the production of the raw materials required by the industry. By 1955-56, the requirements of synthetic resins and moulding powders had increased to about 6500 tons of which indigenous production amounted to 715 tons. The balance was met by imports. It was estimated that the demand for various moulding powders by 1960-61

would be about 11,600 tons and programmes of development were drawn up accordingly. Production of phenol formaldehyde moulding powder had already been started on a small scale during the war years. The installed capacity of three units engaged in the manufacture of this material was estimated at 1182 tons on single shift basis. Actual production in 1956 was 984 tons. At the beginning of the Second Plan, schemes were under consideration, or implementation for the manufacture of Urea Formaldehyde moulding powder, Cellulose Acetate, Polystyrene from imported monomer, and Polyethylene moulding powder, besides expansion of capacity of one of the units engaged in production of phenol formaldehyde moulding powder. Most of the schemes have been completed, the notable developments being production of polystyrene in 1957 by Polychem of Bombay in collaboration with Dow Chemicals of U. S. A. and the inauguration in May 1959 of manufacture of Polyethylene by I. C. I. at their Kishra factory.

No programmes under the Second Plan were drawn up for the fabricating sector of the industry which consisted mainly of small units, though it was recognised that expansion of capacity for polystyrene films, resin laminates and unsupported PVC sheets may be necessary.

With the aggravation of the foreign exchange shortage the ex-

port potential of the industry has been receiving increasing attention. An Export Promotion Council was set up in 1955, and the industry also gets the benefit of rebate of duty on raw materials used in the manufacture of articles intended for export. The export of plastics goods has increased from Rs 6.4 lakhs in 1951-52 to over Rs 14 lakhs in 1954-55 and to around about Rs 20 lakhs in 1958.

The targets of capacity set for the different moulding powders were as under. They are all likely to be achieved and in cases exceeded by 1961.

	tons
Phenol formaldehyde	1,310
Urea formaldehyde	500
Cellulose acetate	900
Polystyrene	3,500
Polyvinyl chloride	1,500
Polyethylene	5,100
Total	12,810

A five fold expansion of use of plastic materials, now round about 25 million lbs. in is expected by the end of the Third Plan. Apart from expansion of production of raw materials and intermediates to adequate levels, the emphasis during the Third Plan is likely to be on the fabrication of machinery and tools for the industry, of which the requirements in the next ten years are estimated at about Rs 10 crores.

Rubber

Pressing Need to Step Up Rubber Output

NATURAL Rubber is one of those important raw materials, the consumption of which offers immense scope in a developing economy such as India. Unfortunately, in India, the natural rubber industry has not received the attention it deserves. The trend of production and consumption, during the last few years, amply bears out this contention, as will be clear from the following table (figures in tons):—

Year	Production	Consumption	Imports
1955	22,482	27,543	3,339
1956	23,444	28,966	6,463
1957	23,767	31,735	9,677
1958	24,338	34,756	11,378
*1959:			
Jan'y	2,324	2,866	670
Feb'y	952	2,922	693
March	1,211	3,350	1,934
June	1,040	3,299	1,330

*Figures shown in Metric Tonnes.

From the above figures, it is very clear that one of the pressing needs of the raw rubber industry in India is to increase production with a view to meeting the requirements of the rubber goods manufacturing industry. The gap between the production of raw rubber and the demand of the manufacturers is steadily widening in spite of substantial increases in the production year after year, especially when the manufacturers expect that consumption, during the next five years, will be far in excess of the anticipated increase in production.

The scheme of development of rubber, which has been in force for some years, has not reached a scale on which it can be relied upon to fill this gap in the near future. The Rubber Board, with the blessing of the Government of India, started implementing, in 1957, a scheme of replanting 70,000 acres with new, high-yielding material at the rate of 7,000 acres per annum, spread over a period of 10 years. The planted area has gone up by 14,000 acres to 300,000 acres this year. The increase in the planted area, during the past seven years, has been of the order of 73 per cent. But, the yield per acre from the existing areas has been going down. Although the growers have already taken up rehabilitating and replanting of old stands of rubber with the help of the rehabilitation element, the Government feel that the growers have not made adequate use of the opportunity for rehabilitation. The net result is, that the pace of increase in total production has considerably slowed down. Consequently, the gap between output and consumption has been widening, while the yawning gap is being plugged by raising imports.

With the progressive modernisation and expansion programme of the rubber industry in the country, the demand is bound to go up further in the coming years. For instance, the Firestone Tyre Company in Bombay is going ahead with its expansion plans. The Ceat Tyre plant is also expected to go into production next year. Besides, there are others who are interested in setting up plants in the country. The Kerala Government have a proposal to put a plant for the manufacture of rubber tyres and tubes. Again, a Bombay firm has already proposed to set up a plant in Uttar Pradesh to manufacture synthetic rubber, and negotiations, in this connection, are understood to have reached final stages. Some major companies have also extended their scope of activity and have already gone into production of cycle tyres and tubes for which, too, there has been a rising market. There has also been an advance in the manufacture of cable and electrical wiring and new companies have been started to manufacture these items.

What is distressing, however, is the position regarding the supply of raw materials. While the consumption of raw rubber has been rising and is expected to reach a 50,000-ton level by 1960 and over a lakh of tons by 1966, the indigenous raw rubber production has hardly reached the level of 24,000 tons. Even with the programme of replantation, the chances are that the indigenous production may not reach or come near about the expected consumption level. The gap has to be covered by imports only until the time the production of synthetic rubber can come up to a given level.

The commencement of production by the synthetic rubber plant after sometime will, no doubt, be helpful. But, unless natural rubber output can be raised over a period, there will be need for many more synthetic rubber plants. With an increase in prices in the international markets recently, imports also will become more costly. A more vigorous policy has, therefore, to be pursued for raising rubber output within the country, as there is clear evidence that earnings of a number of rubber estates have been adversely affected by increased costs of production. The Tariff Commission has been asked to fix fair prices for rubber, so that the real grievances of the plantations can be remedied. Indigenous production has to be increased appreciably through the introduction of measures, which will yield results from the long-term point of view. Otherwise, large expenditure will have to be incurred on imports and, with an increase in internal consumption, it will be necessary

to spend much larger sums in foreign exchange.

Meanwhile, the steady increase in the international price of rubber, since the beginning of 1959, has been worrying the Indian manufacturers as they have to depend on imports to a considerable extent. Although prices have fluctuated violently at times in the past twelve months, the predominant trend has clearly been upwards. A year ago, spot rubber, on the London market, was quoted at 23½d per pound, while the rate is presently quoted around 35d. This rise of nearly 12d in a year has not been caused by temporary shortage, but by a genuine recovery which has taken place due to the overall world demand for the commodity. It is, therefore, believed that the present trend of prices will be maintained for some time to come and this belief is based on various factors.

During the past year or so, world production has lagged behind consumption and there is little evidence that production can be increased substantially soon. But for the fact that the Communist countries are not, at present, anxious to buy more rubber, there could have been a squeeze of supplies. United States estimates

put world consumption of natural rubber, this year, at 2.05 million tons, which is a rise of 68,000 tons on 1958. If this figure proves accurate, consumption will exceed expected production by 60,000 tons. This, however, may be offset by the absence of any increase in the demand for rubber from China and the USSR who, together, are as important consumer as the United States. It is because of this that world consumption figures for 1959 have been tentatively estimated at rather conservative levels. Since rubber production is rising only slowly—it is estimated at 1.99 million tons in 1959, a rise of only 35,000 tons on 1958—the gap between consumption and production is clearly widening.

There are, however, two imponderables in assessing the future outlook for rubber. One is the installation, in Europe and the USA, of major new production facilities for synthetic rubber. If the price of natural rubber rises too much and a serious shortage develops, consumers will be forced to turn to synthetic for their supplies. The other is the future purchasing policy of the Communist countries. A sharp fall in buying from this source can upset the outlook completely.

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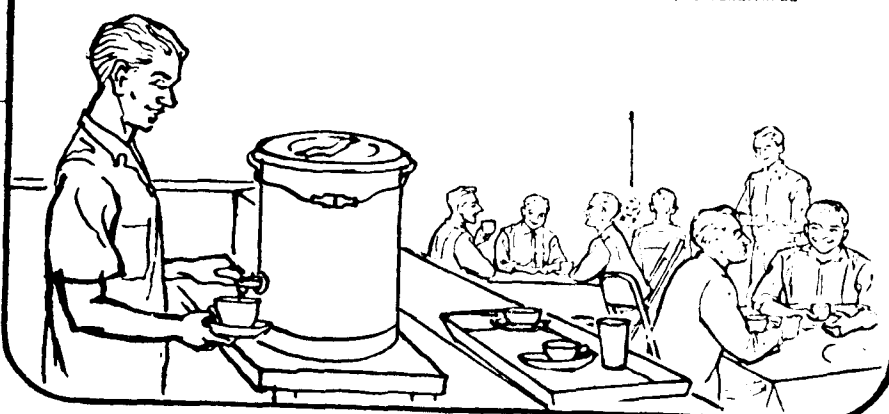
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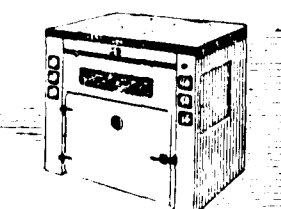


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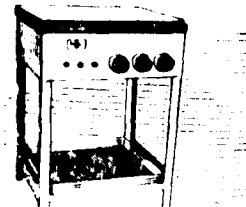


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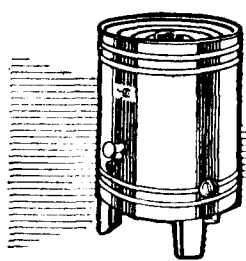
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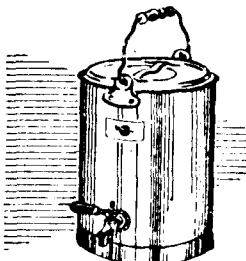
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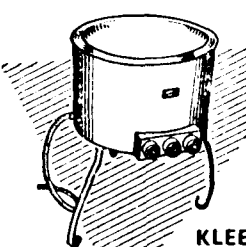
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Sugar

Sugar Industry

WITH the advent of the 1958-59 season, the sugar industry seems to have turned one full circle; for, after a long interval of years during which there was adequacy and even plenty of production, sugar scarcity has reappeared with some of the nightmarish horror that characterised the sugar situation during the days of World War II. In the Madras State particularly, such scenes as unimaginably long queues familiar in the war days are being reenacted in the realm of sugar supplies. Even in the other States such as Bombay, Punjab etc, as a measure to ensure proper distribution to the consumers, the State Governments have been compelled to take over distribution of sugar. One uniform feature in this situation, is the upward movement in sugar prices that drew momentum as signs of scarcity became clear.

The background to this situation in prices and supplies is furnished by two seasons of successive fall in production. In 1957-58 sugar production in the country declined to 19.77 lakh tons from 20.25 lakh tons in the previous season. It was the adverse conditions prevailing in UP and Bihar, the two main sugar producing States, which contributed to this decline in production as it was the fall in production

in these two states which was reflected in the fall in total production. In UP, sugar production in 1957-58 fell from 10.80 lakh tons in 1956-57 to 9.42 lakh tons in 1957-58. In Bihar, production declined from 3.12 lakh tons in 1956-57 to 2.75 lakh tons in the following year. In both States uncertainties in sugarcane supplies arising from competition of Khand-sari manufacturers caused difficulties to vacuum pan factories and precipitated the decline in production.

In UP the quantity of sugarcane crushed by vacuum pan factories declined from 11.14 million tons in 1956-57 to 9.48 million tons in 1957-58, while in Bihar the quantity of cane crushed dropped from 3.32 million tons in 1956-57 to 2.77 million tons in the following year.

For the season 1958-59, production is expected not to exceed 19.4 lakh tons which is lower than the production achieved in 1957-58. That at this level there should be rise in prices and scarcity was inevitable in the context of the growing demand for sugar arising from rise in population and increase in the purchasing of the people. The Second Plan target was fixed at 2.25 million tons having regard to the rise in consumption

arising from these sources. Already consumption is estimated to have exceeded 21 lakh tons.

With the fall in production the prospects which the glamorous performance of the industry during the last year of the First Plan and the first year of the Second Plan evoked have been rudely shattered. Exports of sugar effected on a notable scale in 1956-57 was hailed as having momentous significance. The adverse foreign exchange situation which threatened to overtake the country and to upset the implementation of the Second Plan induced dreams that the sugar industry could be developed to become a settled earner of foreign exchange. The Second Plan for the industry which envisaged exports as an annual feature reinforced such optimism and confidence. The renewed exports of sugar effected during 1957-58 though at some loss to the sugar mills seemed to give sugar exports the character of permanence. However the reversal of fortunes in the last two years had been so complete as to underline the futility of exports at least for some years to come. For, it is not conceivable that production could be stepped up to meet rising internal demand and export requirements. Though in expectation of repeating the

earlier performance on the export front, the Government fixed target for exports, with signs of shortfall in internal production export target had had to be whittled down. On the other hand, there was even a demand raised in some quarters for imports of sugar to ease the internal supply situation which however was turned down by the Government in view of the unfavourable foreign exchange situation.

The fall in production coming as it does in the midst of the Second Plan after increase achieved in earlier years raises a whole series of questions about the future of the sugar industry, the problems which the industry has been facing and the Government's attitude to the industry.

One apparent cause for the unhappy affairs of the industry is the uncertainties that had developed in respect of sugarcane supplies to vacuum pan factories. To some extent, this reflects lagging progress in respect of sugarcane cultivation. But the shortage in supplies in the two seasons 1957-58 and 1958-59 was particularly acute in UP and Bihar, the two premier sugar producing States and was brought about by unfair competition offered by khand-sari producers. Taking advantage of the

tax differential between sugar produced by vacuum pan factories and khand-sari sugar, producers of the latter were diverting sugarcane supplies from their normal destination to vacuum pan factories. In view of the fall in sugar production which came in the wake of such diversion in 1957-58 it would have been expected that the Government would take measures to ensure adequate supplies of sugarcane to the factories. Though before the 1958-59 budget an excise duty of Rs 5.60 per cwt was imposed on khand-sari, in March 1959 the duty was reduced to the extent of 10 per cent for khand-sari using sulphitation method and to the extent of 30 per cent for power driven centrifugals while all the others were exempted from the levy. This naturally encouraged a tendency toward conversion of power driven khand-saris to hand driven process. The production of khand-sari sugar which was less than 1 lakh tons before 1957-58 rose to 2.25 lakh tons in 1957-58 and is expected at 3.5 lakh tons in 1958-59.

This faltering policy of the Government in allowing khand-sari manufacturers to divert sugarcane supplies from vacuum pan factories had been largely responsible for the fall in production in both the seasons. Though in view of the scope it gives for organising production on cottage industry basis, khand-sari manufacture should deserve encouragement of the Government, it is equally necessary to see that sugar production is not affected by any policy which involves disruption of supplies of sugarcane to the sugar factories. This could be guaranteed by a policy under which no licences would be given to power crushers near the factory areas. Since the danger to sugar factories from khand-saris arises only in UP where most of the khand-saris are concentrated, it is upto the UP Government to take steps to guard the position of the sugar industry in the State.

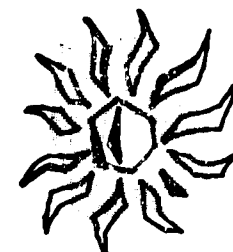
The complaint voiced by the mill interests about the lack of an incentive element in the price fixed by the Government for sugar produced particularly in the northern sugar producing belt is another matter that will have to be investigated with a view to arriving at a price that would satisfy the industry without jeopardising consumer interests. Though the Government had been determinedly clinging to the price fixed at the beginning of the season at Rs 26 per maund for sugar produced by factories in UP and Bihar, on indications of possible shortfall in production, the price had been enhanced to Rs 37.85 per maund for factories in UP and Bihar. That the industry would not benefit to the full extent of the rise allowed should be clear from the fact that along with rise in sugar price, the Government had also allowed a rise in the price of sugarcane from Rs 1.44 per maund to Rs 1.62 per maund. Against this, the Indian

Sugar Mills Association has worked out a fair ex-factory price for sugar nearly Rs 46.00 per maund. There is thus an irreconcilable difference between the Government and the sugar industry in the matter of a fair price for sugar. Whether and to what extent this would affect production is something for which no definite answer could be given.

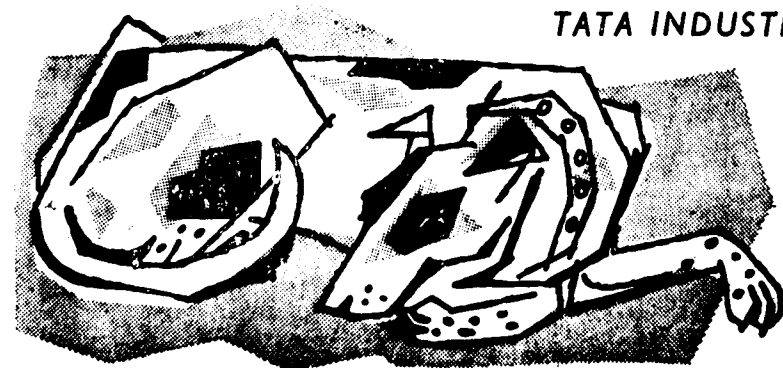
From another point of view, the fall in production could be said to reflect the sagging vitality of the sugar industry in UP and Bihar. A survey of production trends in recent years would indicate that these two States which before 1950 accounted for more than 70 per cent per of total production had been losing their hold due to the faster development of the industry in the Bombay Deccan and the Peninsular area. The climatic advantages of the Southern area for sugarcane production is a factor that tends to reduce the competitive strength of UP and Bihar in sugar production. Both in respect of per acre yield and recovery percentage, these two States occupy a low position as compared with States like Bombay and Andhra Pradesh. It should therefore, be clear that without improvement in sugarcane cultivation in these two States a tangible improvement in the efficiency of sugar industry is inconceivable.

Development of sugarcane cultivation has been the recurring problem of sugar industry. Though the First and Second Plans had initiated development schemes for improvement of sugarcane cultivations judged from per acre yields, the results are far from encouraging. Whether such schemes had been implemented in the proper manner and to reach the actual cultivator in the field is something that remains doubtful in the context of the decline recorded in per acre yield in the last few years. Cane yields had dropped from 14.55 tons per acre in 1954-55 to 12.73 tons in 1957-58 and is expected to be even smaller in 1958-59. This would seem to point to the need for approaching the problem of sugarcane cultivation in a thorough manner so that cane yields could be raised without further waste of resources.

Finally the question remains to be answered whether the sugar industry would be able to attain the target fixed for it under the Second Plan. Two seasons of successive fall in production which had created a gap of more than 2 lakh tons would seem to rule out optimism. However it cannot be forgotten that in the face of precipitate fall in production in the second and third year of the First Plan the industry staged a dramatic recovery and more than exceeded its target in the final year of the Plan. In assessing the prospects for the industry under the Second Plan, therefore, it will have to be borne in mind that, sugar production has never been susceptible to exact prediction.



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of
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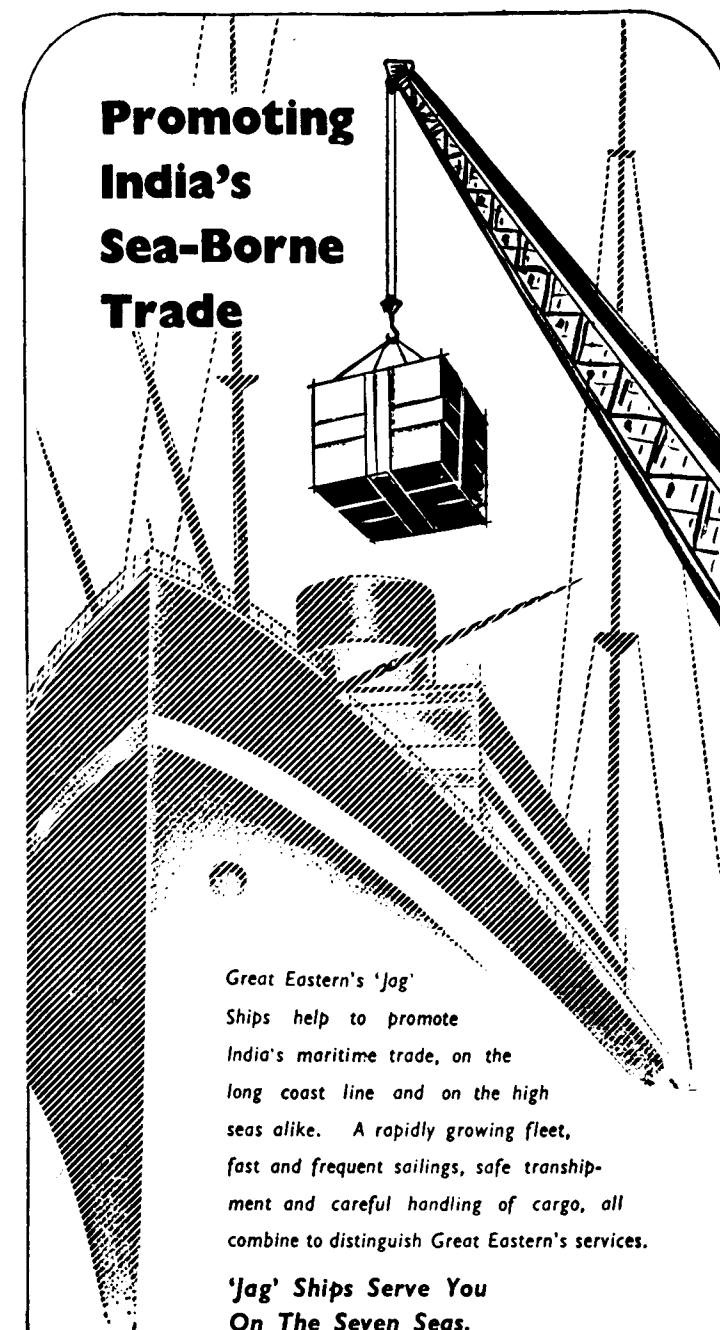
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Tea

The Cup that Cheers

THE Tea industry in India is a great national asset and it is playing a very important part in the economy of our country. Its future role is also going to be vital, as it occupies a pre-eminent position in the economic sphere of our country.

Again, the importance of the tea industry in the nation's economy can be judged by the fact that it provides employment to a large number of persons other than any other organised industry. Indirectly, it provides employment for a large number of other people engaged in industries, which have thrived under the wings of the tea industry, e.g., plywood, ceramics, coal, cement, fertilizers, tea machinery and transport.

Tea is largely produced in North India; but the contribution of the South is also quite substantial. If we take the average statistics of the production figures, we can see that the South contributes approximately one-fourth of the country's production. Moreover, teas of the South have also established a reputation in the world market.

There are more than 6,300 tea gardens in India covering nearly 80,400 acres, their total yearly production being well over 630 million pounds. India is the lar-

gest tea-producing country in the world, meeting over 50 per cent of the world demand for tea, which is estimated at about 1,200 million pounds a year, excluding China, Japan and USSR. The following table gives the latest crop position as compared with the previous two years (figures in million pounds):

(In Million Pounds).				
	1959.	1958.	1957.	
Up to—				
Nov.	545.0	543.1	516.5	
Sept.	107.6	119.2	104.3	
Nov.	53.5	52.5	43.6	
October ...	338.5	341.3	333.5	
July	53.9	57.8	58.8	
Sept.	51.2	46.0	43.1	
Total ...	1,149.7	1,159.9	1,099.8	

For the Second Five-Year Plan period ending 1960-61, the target for production was fixed at 700 million pounds and the export target at 470 million pounds to 500 million pounds. In the year 1953 itself, we seem to have achieved the targets fixed. But, the major difficulties in the expansion of Indian teas are, the high cost of production due to the implementation of the Plantation Labour Act, increased wages, high export duty and heavy burden of taxation, both by the Central and State Governments. Another problem,

that has been constantly worrying the producing countries, is that of balancing the supply with the demand of tea and the increasing competition from new entrants in this industry.

A disquieting feature about the increased production in India is, however, the excessive supplies of Common teas, which fetch low prices in the auctions. It is estimated that about 60 per cent of the Indian production are Common teas. Areas like Cachar, Tripura and Dooars, where the tea estates are in financial distress, produce more Common teas. More than production prospects, what should really worry the tea interest is the likelihood of a further fall in quality in case no effort is made to resort to good quality production.

While the Indian production in 1959 is slightly ahead of last year, the output in other countries is much higher. Again, the trend of production, so far, reveals that, in Pakistan, Ceylon and Indonesia, the output may remain either steady at the 1958 level or rise slightly and, in East Africa and Japan, it will be markedly higher.

As a result of the imbalance in supply and demand position, there is naturally a fall in prices and this affects largely producers of Common teas. India is mainly a producer of Common teas and hence she suffers seriously in this respect. Again, since Common teas produced in other countries, particularly Africa and Indonesia, are very much cheaper than the Common teas produced in India, the position of India becomes difficult as she has to sell her teas at considerable losses.

We are also faced with the threat from new entrants in the field. The USSR has granted 689 million roubles for the development of the tea industry, which will enable the country to raise its production by 50 per cent over the present level. China is carrying out a project for increasing her production. Teas from the new producing countries like Argentina, Brazil and Iran have already started pouring into the world markets. When the additional area brought under cultivation in Argentina, Brazil and Peru begins to yield, the South American supplies are expected to lead to a triangular contest in the American market and result in India and Ceylon being priced out of the American Continent, as the South American tea will cost less, particularly owing to the proximity of supply to the USA and Canada.

For obvious reasons, the Indian tea industry is now in such a difficult position that its future cannot be viewed without some

concern. The position has been rendered worse by the fact that other tea-producing countries, taking advantage of India's weakness, have captured the markets for Indian tea. But, taking an overall view of the likely increase in production in different producing countries as well as the likely increase in consumption in different consuming countries by 1965, the prospects of the industry do not appear to be too gloomy. The general behaviour of the tea market was fully reflected in the trend of prices.

From the beginning of the year, prices obtained, at the auctions held in Calcutta, for almost all grades, were generally satisfactory although they were irregular. But a notable feature was the increased strength of the internal market, resulting in the prices of Plan teas remaining above those ruling in other centres. This was mainly due to the fact that foreign buying was satisfactory and this was reflected in the shipments, which were on the increase during the 1958-59 season as compared to the 1957-58 season. The increased buying by the UK was accounted for by a rise in consumption and also in stocks, which were helped by easier credit facilities. The fact that there were no restriction on direct shipments to the UK stimulated sales. Above all factors, Russia doubled her offtake, while other out-markets bought fair quantities.

The first sale of the 1959-60 season, which was held on the 8th June, was considered to be rather disappointing, as over 60 per cent of the teas had to be withdrawn, many of them even without bids. The quality of offerings was also inferior, which was another factor for the relatively lower prices obtained. This general inactivity among most sections of the trade was rather surprising, especially in view of the keen interest shown by buyers in the limited number of packages available for private sales in the preceding weeks.

Thanks to a progressive improvement in the quality of the offerings, the market witnessed a steady rise in demand from the beginning of July to the end of October. Also, there was evidence that more and more out-markets were participating in the sales, although their entry, during the current season, was relatively belated. But, a welcome enquiry from Poland and Sudan contributed a great deal to the steady improvement in prices recorded mainly by the Commonest, Dooars and low medium Brokenes. The only exceptions to the general trend were the more expensive Assam BOPs, Darjeelings and teas of CTC manufacture, which however, continued to be sold at re-

duced prices each week. The following table shows the trend of prices (per pound):—

	January		February		March		April		May		June	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
	Rs.		Rs.		Rs.		Rs.		Rs.		Rs.	
EXPORT:												
Clean Black Pekoe ...	2.04	2.00	2.08	1.96	1.96	1.90	1.96	1.92	...	...	2.10	2.00
Plain B.P.	1.66	1.54	1.72	1.62	1.66	1.54	1.60	1.58	...	...	1.68	1.60
Plain Fannings ...	1.80	1.70	1.88	1.74	1.78	1.70	1.70	1.64	...	...	1.70	1.60
Medium B.P.	1.64	1.58	1.72	1.60	1.60	1.52	1.60	1.56	...	...	1.90	1.90
Medium Fannings ...	1.90	1.74	1.84	1.74	1.74	1.64	1.64	1.64	...	...	Not Quoted	...
Best Assam CTC B.P.	2.25	2.15	2.30	2.20	2.40	2.30	Not Quoted	...	...	...	3.40	3.20
Best Assam CTC Fannings	2.40	2.30	2.70	2.30	2.75	2.55	Not Quoted	...	...	...	4.10	3.60
INTERNAL:												
Medium Dooars Dust	1.82	1.72	1.84	1.72	1.82	1.70	1.86	1.74	1.72	1.62	1.72	1.62
Medium Assam Dust	1.84	1.72	1.82	1.72	1.78	1.72	1.82	1.70	1.70	1.60	1.70	1.60
Medium Assam CTC Dust	2.20	1.95	2.10	1.85	2.15	1.85	3.00	1.95	2.05	1.80	2.05	1.80
Best Assam CTC Dust	2.00	2.40	2.90	2.20	3.00	2.40	3.00	2.60	Not Quoted	...	Not Quoted	...
	July		August		September		October		November		December	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
	Rs.		Rs.		Rs.		Rs.		Rs.		Rs.	
EXPORT:												
Clean Black Pekoe ...	2.00	1.92	2.00	1.92	2.02	1.90	2.08	1.98	2.18	2.04	2.24	2.14
Plain B.P.	1.76	1.64	1.86	1.74	1.92	1.82	1.92	1.88	2.10	1.88	2.14	2.04
Plain Fannings ...	1.90	1.60	2.08	1.86	2.16	1.98	2.16	2.04	2.20	2.04	2.20	2.10
Medium B.P.	2.10	1.95	2.06	1.92	2.08	1.90	2.08	1.98	2.12	1.90	2.12	2.03
Medium Fannings ...	2.20	2.10	2.20	2.08	2.24	2.10	2.28	2.14	2.30	2.12	2.24	2.16
Best Assam CTC B.P.	3.60	3.30	3.50	2.60	2.80	2.30	2.90	2.60	2.90	2.60	2.90	2.50
Best Assam CTC Fannings	4.50	3.90	4.30	3.70	3.20	2.70	3.20	2.80	2.95	2.60	2.90	2.50
INTERNAL:												
Medium Dooars Dust	1.86	1.66	1.98	1.78	2.02	1.82	2.08	1.94	2.22	1.98	2.22	2.08
Medium Assam Dust	1.84	1.70	1.94	1.76	1.96	1.78	1.94	1.90	2.18	1.94	2.16	2.04
Medium Assam CTC Dust	2.40	2.00	2.20	2.00	2.15	2.00	2.15	2.00	2.30	2.00	2.28	2.10
Best Assam CTC Dust	3.20	2.78	3.00	2.65	2.80	2.50	2.70	2.50	2.90	2.50	2.90	2.50

Taking into consideration the apply position, there is a belief that the remaining sales of the season may continue to be satisfactory. In this connection, the report, issued by a well-known tea broker's firm, states that the crop, during the remaining months of this season, cannot increase much. The report adds that, even if there is a possibility of any decline in prices due to offerings exceeding buyers' requirements, an improvement can probably be looked for in the New Year once it becomes apparent that export sales are likely to end even earlier than in the previous year.

Finally, it may be added that quality and price are the two main

factors which determine the level of imports into the main tea consuming countries. First, as stated earlier, a disconcerting factor is, that supplies of Common tea or low grade tea are, at present, unduly excessive. If production is to rise, it should not be effected by resorting to coarse plucking or by manufacturing low grades. With such high production of low grades, there is little prospect of any improvement in the value of Common teas, especially when India may face increased competition in the coming years. Secondly, there is a vital need for a programme of replanting. This has been neglected in the past. If the backlog in replantation is not

made up, it will threaten India's pre-eminent position in tea production in the world. Thirdly, research to study consumer preferences, both in India and abroad, should be undertaken. Efforts should also be increasingly made to spread out exports. Finally, the internal consumption is rising at a fast rate. We must, therefore, see that the prevailing high prices do not go up still further and act as a deterrent to the increase in domestic demand.



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Gardens.	1958		1957	
	Outturn (Mds.)	Average Price realised per lb. Rs. n.p.	Outturn (Mds.)	Average Price realised per lb. Rs. n.p.
Assam:				
*Brooke Bond	39,016	2.29	36,601	2.10
Dufflaghur	13,229	2.52	12,251	2.76
Dimakusi	8,536	2.63	8,564	2.82
Gillapukri	8,202	...	8,247	...
Rajgarh	5,755	2.19	5,597	2.16
Tezpor	35,023	1.92	30,308	1.81
Basmatia	7,439	2.62	8,593	2.08
Murphulani	5,171	2.75	5,544	2.45
Darjeeling:				
Soom	3,905	3.49	3,768	3.68
Chamong	1,810	3.51	1,969	3.30
Okayti	2,246	4.80	1,867	3.90
Runglee Rungliot	2,451	3.45	1,962	3.49
Poobong	1,518	3.27	1,419	2.86
Dooars:				
Birpara	15,842	2.06	13,832	2.04
Engo	3,348	1.89	2,944	1.67
Mim	1,978	3.93	2,062	3.45
Jaybirpara	6,362	1.85	6,425	1.87
Manabarric	7,062	...	6,872	...
Trai:				
Hansqua	6,503	1.74	6,348	1.71
Chet:				
Chundeherra	7,835	1.95	8,623	2.00
Loobah	4,229	1.58	3,836	1.59
Rajnagar	5,818	2.18	4,701	1.97
Chhar:				
Kunchunpore	4,497	1.71	3,602	1.68

*Figures for the year ended 30th June, 1959 and 1958 respectively.

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Calcutta Stock Exchange

Overall Performance Encouraging

THE overall performance of the Calcutta Stock Exchange, during the past year, should be considered as rather encouraging, especially when the year faced with the most controversial Budget by which the old system of grossing up of dividends was abolished with a view to simplifying the tax structure in the country. Not only the volume of turnover improved substantially, but also the equities recorded a steady rise in prices till about the middle of the year. During the second half of the year, the tendency for prices was to move irregularly on lack of sustained support at any particular level.

The bullish fervour, noticed during the major part of the year, however, reflected the optimistic outlook for the industries, particularly in the context of talks of a substantial larger outlay in the Third Plan. It was also an indication of investors' confidence to a great extent. As a matter of fact, the marketability of a number of quality scrips was considerably reduced due to shortage of scrip as a result of fairly large-scale purchases made by the LIC and, consequently the yield spread between the ordinary shares and the fixed-interest-bearing securities narrowed further.

A notable feature of the year's trading was a perceptible improvement in the activity in the capital issues market. There was a pronounced preference on the part of investors to go in for the shares of the newly-established companies. Above all, the spurt in shares was also attributed to the changing ideas about the yield pattern; and growing emphasis was placed on factors such as capital appreciation and growth potentialities.

Although the market experienced a shake-out at the end of 1958 as a sequel to the publication of the Congress Working Committee's six-point austerity programme envisaging, among other things, control on profits in the private sector, it gave an encouraging performance from the beginning of 1959 despite the Budget uncertainties and the absence of any cheering news on the economic front. There was a general belief that no precipitate measures might be adopted by the Government; that the new tax levies in the Budget would relate more to indirect than direct taxes and that the investment climate would not unduly be spoiled. Thus, the market finished the pre-Budget session on an optimistic note.

Following the presentation of the Central Budget, the market turned distinctly bullish with equities registering a sharp rise on a wide front. It was thought that, by the new tax changes, the posi-

tion of the shareholders would not be materially affected and they might be compensated by an increased dividend even if they lost a little more in tax, as disposal profits would be bigger if the tax on corporate profits did not exceed 45 per cent. In particular, senti-

ment was enlivened by the abolition of the Excess Dividend Tax and the Wealth Tax on companies. Above all, the Finance Minister's assurance, that he would try to remove any anomalies that might arise from the revision of company taxation, encouraged the ope-

rators to be more active in their dealings.

The attention of the operators was, however, diverted to the selection of companies whose dividend distributions were unlikely to be affected in the future. There was, thus, a significant change in the pattern of trading from the beginning of March when conditions akin to a boom were witnessed, being influenced by various factors. Mainly amongst these were the firmness in commodity markets, the news of the World Bank sanctioning credits to the extent of \$300 million for India's economic development plans, the Stock Exchange Committee's decision to include the ninth scrip—Howrah Jute—on the clearing list and the announcement of the new procedure for the import of raw materials to 45 scheduled industries for strengthening the base of the industrial economy.

Reopening after the Easter holidays, the market again experienced a mild boom under the influence of certain other factors. First, the view, expressed by the Planning Commission with regard to the heavy machine-building industry in the Third Plan, gave rise to a feeling that the target for the iron and steel industry might be raised. Secondly, it was felt that, as a great deal of deficit financing would be needed in the core of the Second Plan, a considerable amount of surplus money might become available for investment. Although prices suffered a mild setback toward the end of the month due to some stray liquidation with a view to making room for the new capital issues, it was proved short-lived.

For, trading was again brisk in May, although prices displayed a slightly reactionary tendency at the end of the month. The initial recovery in prices was aided by the news of the IISCO having obtained a licence for exporting pig iron to Japan and of the proposed deal with the same country for the supply of metallurgical coal. Moreover, the confirmation of the news with regard to the purchases, by the LIC, of a large parcel of Indian Irons, offered by the Dalhousie Holding Company, had a tonic effect on sentiment. But, a general feeling that a correction was overdue in the context of the sustained rise in prices coupled with the reports suggesting additional taxation of Rs 2,000 crores for financing the Third Plan, had a bearish effect on trading sentiment at the end of the month.

Unfounded rumours played a vital role in the moulding of the market's pattern of trading in June. Talks of fresh curbs on company dividends, imposition of margins on transactions in the for-

PRICE TRENDS OF A FEW SELECTED SCRIPS

	31.12.1958		United		Elgin		Bengal		Burrakur	
	High	Low	High	Low	High	Low	High	Low	High	Low
1955	81.50	80.19	58.25	42.50	28.81	16.62	615.00	493.00	17.12	11.25
1956	80.81	72.62	61.25	45.30	29.75	25.69	405.00	446.00	22.94	12.31
1957	75.25	71.50	60.00	51.50	28.87	14.75	242.00	210.00	22.75	20.75
1958	74.50	71.70	59.50	58.50	13.75	11.62	298.00	201.00	23.31	16.12
1959:										
Jan.	75.00	73.00	69.00	67.50	11.75	11.50	285.00	265.00	18.00	16.00
Feb.	75.00	73.25	68.50	67.50	12.31	12.00	285.00	280.00	17.87	17.12
Mar.	74.00	73.50	69.25	67.50	13.37	12.69	308.00	282.00	19.25	17.25
Apr.	74.50	73.90	68.50	65.25	14.31	13.12	319.00	301.00	18.50	18.75
May	74.50	73.70	66.50	63.25	15.67	12.75	314.00	305.00	18.75	16.81
June	74.20	73.00	62.75	61.00	14.37	13.19	328.00	302.00	17.40	16.62
July	74.80	73.50	63.00	61.00	14.12	13.44	323.00	306.00	18.56	17.12
Aug.	74.25	73.25	63.25	61.00	16.12	13.75	317.00	306.00	18.25	16.75
Sept.	75.25	73.50	62.25	60.50	17.12	15.00	307.00	294.00	17.00	15.94
Oct.	75.25	74.75	61.50	61.00	16.94	16.06	300.00	289.00	16.87	16.00
Nov.	75.25	73.75	62.75	61.00	16.28	14.81	312.00	293.00	18.08	16.52
Dec. (upto 27th)	74.25	73.00	64.75	62.00	17.75	15.06	300.00	294.00	17.56	17.00
	Anglo-India		Howrah		National		Cawnpore		Brooke Bond	
	High	Low	High	Low	High	Low	High	Low	High	Low
1955	258.00	208.00	34.62	27.25	...	...	24.25	18.06	...	...
1956	216.00	135.00	27.62	18.56	...	...	25.87	15.87	...	...
1957	160.00	130.00	20.50	13.25	21.90	17.25	20.56	14.06	21.37	14.50
1958	232.00	127.00	22.65	12.75	26.65	21.00	12.25	9.19	20.00	14.00
1959:										
Jan.	228.00	198.00	20.62	19.25	26.50	25.12	11.00	11.00	16.12	14.94
Feb.	217.00	205.00	19.62	18.62	26.75	25.12	10.50	10.06	17.25	16.56
Mar.	238.00	203.00	25.00	18.31	25.50	23.00	10.50	10.50	18.31	17.50
Apr.	250.00	231.00	25.00	23.84	24.62	23.81	11.44	10.62	18.50	18.00
May	241.00	225.00	24.69	22.75	24.50	23.00	11.50	10.25	22.00	18.19
June	151.00	232.00	24.87	23.12	24.00	21.37	12.56	11.25	20.55	19.75
July	273.00	247.00	24.94	23.62	23.62	22.50	15.12	12.44	21.06	19.25
Aug.	262.00	252.00	24.37	23.59	23.25	22.75	13.62	13.12	20.06	19.56
Sept.	242.00	238.00	23.62	22.69	24.00	22.50	12.81	12.75	18.06	17.90
Oct.	257.00	248.00	25.75	22.87	24.50	23.94	13.25	12.81	19.00	17.37
Nov.	248.00	235.00	25.56	23.12	25.62	24.50	15.06	13.50	20.50	18.56
Dec. (upto 27th)	223.00	210.00	24.06	23.19	26.12	24.62	14.50	14.37	18.62	17.00
	Indian Iron		TEXMACO		Orient Paper		Titaghar Paper		India Steamship	
	High	Low	High	Low	High	Low	High	Low	High	Low
1955	43.12	32.12	27.50	14.44	35.94	24.19	50.75	40.25	8.87	7.12
1956	39.12	28.37	25.75	19.00	41.12	31.31	48.25	36.00	10.75	8.00
1957	30.12	16.63	21.31	14.65	34.50	20.95	39.37	31.00	12.00	9.19
1958	27.70	18.47	23.35	15.42	36.10	22.75	44.31	31.62	14.94	10.75
1959:										
Jan.	26.38	24.86	21.15	20.20	31.05	29.00	41.87	40.25	14.19	13.69
Feb.	23.43	22.06	21.90	21.65	34.10	30.20	42.75	42.00	14.25	13.87
Mar.	24.42	22.24	23.00	21.00	38.00	31.60	45.25	42.12	15.06	14.12
Apr.	24.68	23.92	23.30	23.30	38.65	36.10	47.06	43.87	15.00	14.12
May	24.95	23.81	25.10	25.20	37.30	35.10	42.75	41.25	14.87	14.00
June	24.64	23.90	25.90	25.40	37.70	35.68	45.25	41.00	14.31	13.75
July	25.56	23.85	26.25	23.35	37.50	35.60	44.87	42.62	14.69	14.06
Aug.	25.25	23.66	24.85	23.65	38.50	36.15	45.31	43.50	15.50	13.94
Sept.	23.98	23.22	24.45	23.55	38.90	37.70	45.31	43.78	14.25	13.57
Oct.	24.61	23.67	24.85	23.75	38.50	37.75	45.50	44.62	14.12	13.62
Nov.	24.53	22.95	25.35	24.10	38.50	35.75	45.50	42.25	13.81	12.25
Dec. (upto 27th)	23.82	22.96	25.60	23.97	38.75	35.45	41.62	40.50	12.25	11.75
	Robtas		National Carbon		NICCO		Indian Aluminium		Indian Copper	
	High	Low	High	Low	High	Low	High	Low	High	Low
1957	20.25	15.50	27.12	23.12	26.87	19.19	15.12	22.22	3.81	2.70
1958	25.40	15.25	28.87	23.75	35.00	22.62	16.87	12.31	4.04	2.74
1959:										
Jan.	19.56	18.25	28.62	26.87	30.31	29.00	17.37	15.87	3.65	3.40
Feb.	20.25	18.50	28.56	27.00	30.62	29.19	18.00	16.78	3.82	3.50
Mar.	23.25	18.75	30.69	29.07	34.00	29.90	21.44	17.12	4.38	3.64
Apr.	23.62	21.87	32.87	30.19	33.81	32.75	22.44	22.00	4.40	4.19
May	22.25	21.56	33.19	29.25	34.87	33.56	22.37	19.94	4.32	4.01
June	23.12	21.87	37.50	29.25	34.94	33.12	22.19	20.00	4.16	4.04
July	23.06	21.00	35.62	33.12	37.37	35.12	23.44	21.75	4.28	3.99
Aug.	23.75	21.32	37.12	34.00	37.12	36.37	22.81	21.37	4.19	4.07
Sept.	26.00	21.75	40.12	36.37	40.12	36.37	21.81	21.00	4.17	4.02
Oct.	26.67	24.37	41.25	37.75	32.00x	31.25x	23.25	21.87	4.03	3.89
Nov.	28.00	24.62	40.81	38.25	31.37	27.44	23.62	22.37	4.06	3.87
Dec. (upto 27th)	25.37	23.94	41.25	38.37	27.75	27.12	23.56	23.12	4.06	3.80

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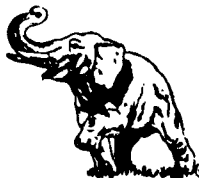
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ward markets and the suggestion for putting a ceiling on individual income and size of the individual property—all these factors had their say in bringing down values rather sharply.

Apart from the fact that the bull operators were badly shaken on account of the unhealthy technical position of the market due to heavy deliveries, the flow of selling orders from Bombay following the announcement of a lower dividend by the TISCO, in the midst of a falling market, accelerated the pace of the downward trend in prices as there was uncertainty with regard to the size of the Indian Iron dividend. It was also feared that, if the steel strike in the USA continued, it would have adverse repercussions on the cost of plant and equipment and essential raw materials which the country might import. There was, therefore, a general disposition to wait until payments against previous settlements were made. But for the growing easiness in money conditions, the market would have remained in a highly unsettled state.

Although the market's behaviour in August was rather intriguing, there was an appreciable recovery in prices during the month. The main stimulant was provided by the news of the TISCO having obtained the sanction for issuing right shares at par and the dividend being maintained by the TISCO. Also, the news of all the State Loans having been over-subscribed gave rise to a feeling that a great deal of floating money might seek investment in industrial shares. There was, however, a general inclination to book profits at bulges.

In September, the trend of prices indicated that operators were rather cautious; and the weakness of the market was mainly influenced by developments, both on the political and economic fronts. On the political side, the most important factor was the deteriorating situation in and around Calcutta following the Food Movement. The second factor was the situation on the Indo-Chinese border which was taken more seriously, as it was felt that it would increase India's defence expenditure. On the economic side, fears were entertained that a fair part of the capital outlay in the Third Plan might have to be met by taxation. The pattern of dividends on the Preference shares, announced by certain companies, gave rise to a feeling that the new system of company taxation might affect the net payments to most preference shareholders. Also, investors seemed to have earmarked their savings for subscribing to the new issues by many established companies and were discriminative in their purchases, while professional operators were not inclined to extend their commitments in view of the approaching holidays for the Puja festival. Thus, there was a considerable shrinkage in the volume of interest, either on

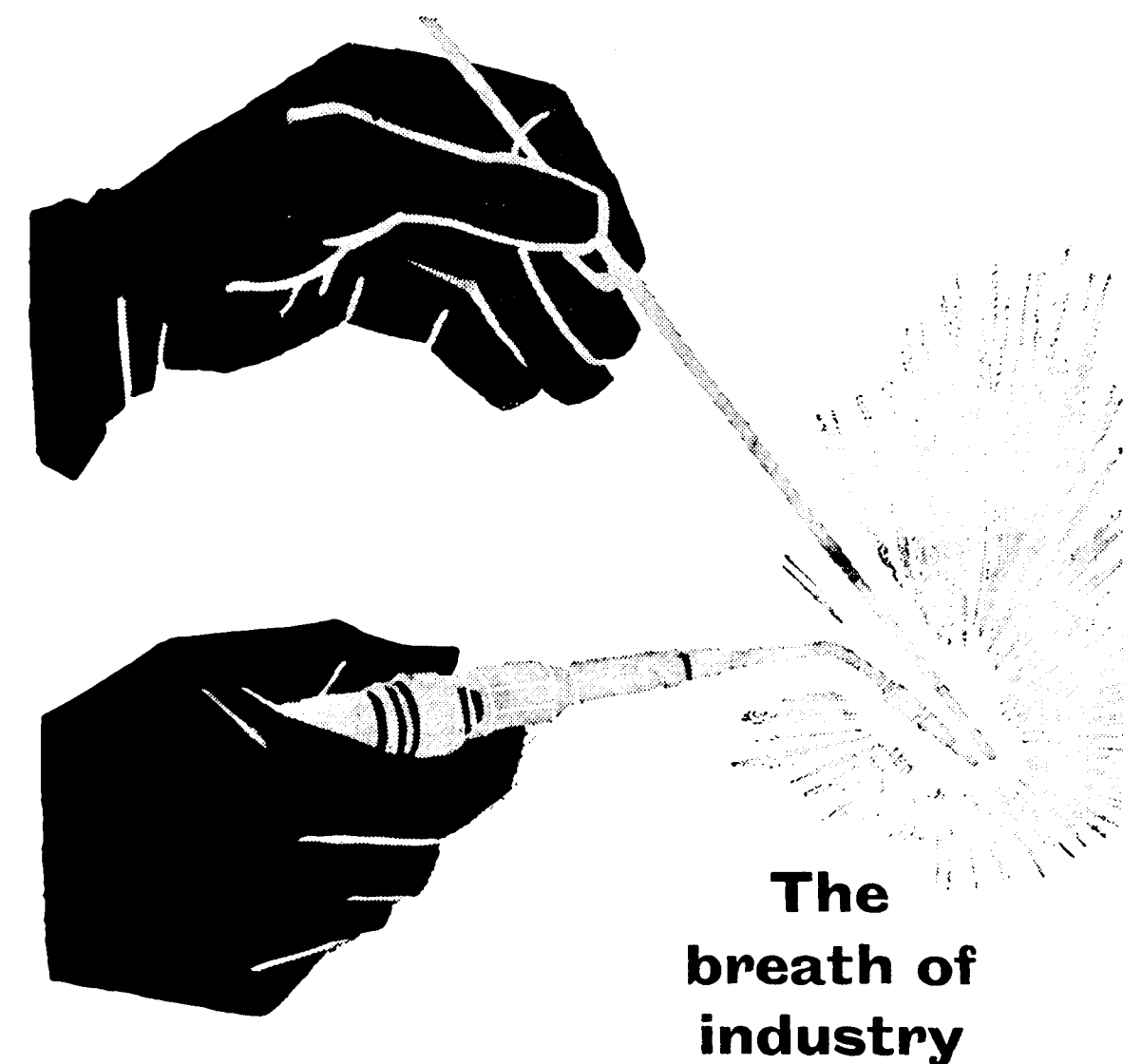
the part of speculators or the investors.

Reopening after the Puja holidays, the market exhibited a cheerful sentiment with a marked recovery in prices following the Stock Exchange Committee's decision to include four more shares—Danlop Rubber, Rohtas, Shree Gopal Paper and Hindustan Motor—in the clearing list. This recovery in prices slackened for a while in the last week of October, apparently to exhibit again renewed strength after "Diwali". The hectic buying continued unabated till the middle of November when all the scrips attained newer heights following the indication made by the Prime Minister that a firm stand in the matter of border dispute with China had been taken.

But, there was again a change in sentiment from mid-November when there was a preponderance of sellers in the absence of effective buying support. This was mainly due to rumours of a supplementary budget to be presented in the Lok Sabha. These were based on the assumption that a steep increase in defence expenditure due to the Sino-Indian border dispute and that the heavy cost of implementation of the Pay Commission's recommendations might necessitate the levy of additional taxation and the imposition of excise duties on certain commodities. Fears were also entertained that the Government might take strict measures to regulate trading in the speculative counters. Thus, even the news of the long-awaited increase in the retention

prices of pig iron and steel had no effect on the market sentiment on the feeling that the increase would not raise the profits of the steel companies. Taking advantage of the situation, bears dominated the entire scene and depressed prices to lower levels.

The last month of the year witnessed an uncertain behaviour of the market, and aimless drifting without any noticeable change in the price levels imparted boredom to trading, resulting in the turnover being kept below normal. In brief, the market was over-powered by a bearish sentiment, arising out of various factors. First, fears of a possibility of additional levies seemed to keep the operators' enthusiasm subdued, not to speak of the political uncertainties. Secondly, the sharp rise in the



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prices of certain commodities, such as raw cotton and raw jute, and the increasing cost of labour gave rise to a fear that they would eat much of the profits of these particular industries. Thanks to the favourable clarification about the interest payable to the Government on the loans sanctioned to the steel companies, the market took a slight turn for the better in the middle of the month when the pace of recovery was accentuated by the visit of the American President. It was thought that his visit would strengthen the friendly relations between the two countries and lead to a more profitable co-operation in various matters, whether political or economic. Also, investors, who were hitherto out of the market, took an optimistic view of share prices and showed some buying interest in view of the higher yields now obtained on equities as a result of the sharp decline in the previous weeks.

Sectionwise, Engineering shares maintained their popularity although price movements, during most part of the year, were influenced by the speculative activity in Indian Irons. The atmosphere of buoyancy in Indian Irons, despite alternate bouts of buying and selling, was well maintained under the influence of the increase in the retention prices for pig iron and steel and the prospects of further expansion in the manufacturing programme and the consequent increase in earnings in the coming years. Following the issue of

right shares, the scrip changed hands on the ex-right basis from February onward.

Jute shares enjoyed fairly good support during the major part of the year on the belief that the mills might be making good profits on the manufacture, especially of sackings, in view of the low level of prices ruling for the raw commodity and the persistent demand for this category of goods from various countries. The strong statistical position of the industry and the diversification of activities by certain mills, also contributed to the sustained support for a few selected shares. Toward the close of the year, however, this section was practically neglected in view of the sudden and sharp rise in raw jute prices which, it was felt, might reduce the profit margins of the mills.

Coal shares were dotted with small rises in values in the middle of the year on reports of an increase in output at various collieries. The shares, especially of those companies having export possibilities, however, enjoyed sustained support throughout the year. Trading, during the second half of the year, was dull and uninteresting following the disappointment over the increase of only 50 NP per ton in the selling price of the commodity.

The Tea section gave, on the whole, an encouraging performance with selected scrips meeting with sustained support at enhanced

levels. From the beginning of the year, prices developed a steady upward trend, being influenced by various factors. First, it was thought that the reduction in the export duty on tea would benefit the Darjeeling gardens in particular. Secondly, it was hoped that the working results of almost all companies would be better in 1958 than in 1957 and the dividends might be higher due to the increase in the export prices obtained. Finally, the prospects for the 1959-60 crop were considered to be bright in view of the lower "afloat" stocks in London, indicating increasing consumption in the producing countries.

After a sustained rise in prices noticed till the end of April, the market turned quiet and trading remained generally restricted till the end of October on lack of support, being induced by the discouraging results of the sales of the new season's teas. It was thought that, if positive steps were not taken to give relief to the Common tea producers, the market for this type would be gradually lost to other competitors. Above all, the increase in the wages to labourers in Dooars and Terai gardens gave rise to a fear that several gardens might have to close down on account of uneconomic working.

Thanks to the flow of encouraging advices from the London market, the section took a definite turn for the better from November when al-

most all shares were steadily bought at advancing levels. It was believed that the estates producing Common teas, which were hitherto incurring losses, might present better results in view of the higher prices obtained, both at the London and Calcutta auctions. It was also felt that, with the November crop showing a drop of 2.5 million pounds over the corresponding figure for 1958, there would be no more excessive supplies in the world markets and the average prices realised for the current season might be as good as in the previous season.

The difficult trading conditions generally experienced by the sugar industry and the strict Government control over distribution kept buyers away from this section. The only relieving feature was the sustained support lent to the shares of those companies manufacturing distillery products, thanks to import restrictions.

The Textile section, which was generally neglected till the end of June, gave an encouraging performance during the latter half of the year following the better conditions prevailing on the domestic as well as export fronts and the satisfaction with the policy pursued by the Government with regard to imports of raw cotton.

Thanks to the flow of encouraging corporate news, the Miscellaneous section provided several bright features on investment and other considerations.

INDUSTRIAL PROFILES

Formation of Bharat Electronics

BHARAT Electronics factory was formed by the Government of India under the Ministry of Defence, in 1954, with the object of making the country self sufficient in electronic equipment including Radar.

Accordingly, Government invited Project Reports and terms of collaborations from important electronic industries in western countries. Only three firms, one from America, one from Europe and the third from England responded to Government invitations. The offer made by the European firm, Compagnie Generale de Telegraphie Sans Fil (C.S.F. for short) was accepted by the Government as the terms offered by them were the best financially and otherwise. An agreement was signed with C.S.F. in 1953 for technical collaboration, including the design of the factory, selection of machinery and equipment and provision of technical personnel. The agreement was for a period of 10 years.

Jalahalli, a suburb of Bangalore, was selected to locate the factory for several reasons, the chief among them being the availability of cheap electricity and water, its alubrious climate and availability of intelligent and educated labour. Bangalore has also its advantages for locating a Defence industry from the strategic point of view.

FUNCTIONS OF DEPARTMENTS

The factory is divided into several shops having distinct functions. We have first the Tool manufacturing shop where all the tools required by various departments for the manufacture of metal parts are fabricated. The Machine Shop is adjacent to this where metal components are manufactured. Both the Tool Room and the machine shop are fitted with the latest type of lathes, grinding, milling, jig boring, engraving, and other machines.

The fitting shop which is situated closely is an adjunct to the machine shop. All precision drilling, and fittings of small components and sub-assemblies are done in this shop.

Next to these shops is an Electroplating section where electro deposition of Cadmium, Nickel, Chromium, Gold, Silver and anodising is done. Adjoining it there is the sheet metal shop where all structural works of chassis, brackets, frames, drawers, cabinets and HF coils including cutting, bending, forming, welding and spot welding is done. The painting shop close by is responsible for Sandblasting and painting of metal surfaces.

In addition, there is Works Inspection Section where inspection of all the materials manufactured by

Tool Room, Machine Shop, Fitting Shop, Sheet Metal Shop, Painting Shop, Electroplating Shop and Heat Treatment Shop are carried out. This section ensures that the standards laid down in the specifications are always maintained.

The Crystal Division completely manufactures Piezo Electric Crystals from raw quartz required for this industry and Coil Winding Section produces different types of Coils, Chokes and Transformers.

Then the Assembly hall takes over all the component and sub-assemblies to make up a complete equipment and assemble them with precision, care and accuracy.

A measuring instruments section supplies and maintains complete range of instruments required for alignment and testing of electronic equipment. A climatic and durability test laboratory subjects manufactured equipment to severe climatic and durability tests.

In all the shops the Inspection Department carries out specialisation checks at various stages and maintains the standard required for these precision equipments with due care and efficiency. This is absolutely necessary in view of the fact that these instruments are required for important and vital work in the Defence Services, Civil Aviation, Railways and other Civil Government Departments.

RESEARCH & DEVELOPMENT

In order to meet the users' requirements and their specifications and also to find out ways and means to improve the standard and efficiency, and progressively increase the indigenous content of each equipment we have a Research and Development Department where research and Development work is carried on.

A Twin Channel Trans-receiver for Aircraft installation has been designed in our Development Department. Stringent tests on this equipment have been conducted by the I.A.F. and it is gratifying to note that they have found our equipment highly satisfactory in their performance. This equipment which will go into production shortly, will satisfy a long felt need of the I.A.F. for a light weight and rugged trans-receiver for their trainer aircraft. Single Channel and Multi-channel Trans-receivers for I.A.F. aircraft are also in the final stages of development. When these are produced in our factory they will completely replace all the imported equipment and thereby make large saving in foreign exchange.

We have recently signed an agreement with PHILIPS of Holland to manufacture in our factory various types of Valves for domestic radio industry. In electronic equipments, the Valve forms an essential and vital component part. It is the heart of all communication and radar equipments and of broadcast and television receivers. Production is expected to commence by the end of 1960.

The one problem that faces Electronic Industry in India both in the Public and the Private Sector is the absence of auxiliary industries for the manufacture of the myriads of components that go into an electronic equipment. As a result of this we are still dependent on foreign manufacturers for electronic components and this is the greatest bottleneck in the rapid expansion of the Industry in India. However, efforts are being made by us to interest small firms to manufacture many of the components necessary for this industry. We are ourselves constantly exploring the possibility of component

manufacture and already a beginning has been made with the manufacture of coils. Transformers and Chokes for our own needs and of Piezo Electric Crystals. There are plans to take up production of silver mica condensers and ferrites in the near future.

We have been maintaining a steady progress in indigenisation and in some equipments we have reached a level of 70 per cent in Indian components. With the establishment of small scale industries for manufacture of components in different parts of the country we are confident, that in the not too distant future we will reach our goal of 100 per cent indigenous manufacture of electronic equipment.

SALES ORGANIZATION

Our Commercial Department which is a link between the production department and the customer looks after the requirements of the consumer, understands their problems from various angles and puts forward such demand to Production Department for making modifications if required to suit the customers' special needs.

In addition the Technical Services of Commercial Department attends to after-Sales Service and the customers are always helped so that our equipments give maximum efficiency in their performance.

Apart from this, the prospective customers are given demonstrations of our equipments, which will enable them to study and select the type of equipments required for a particular use.

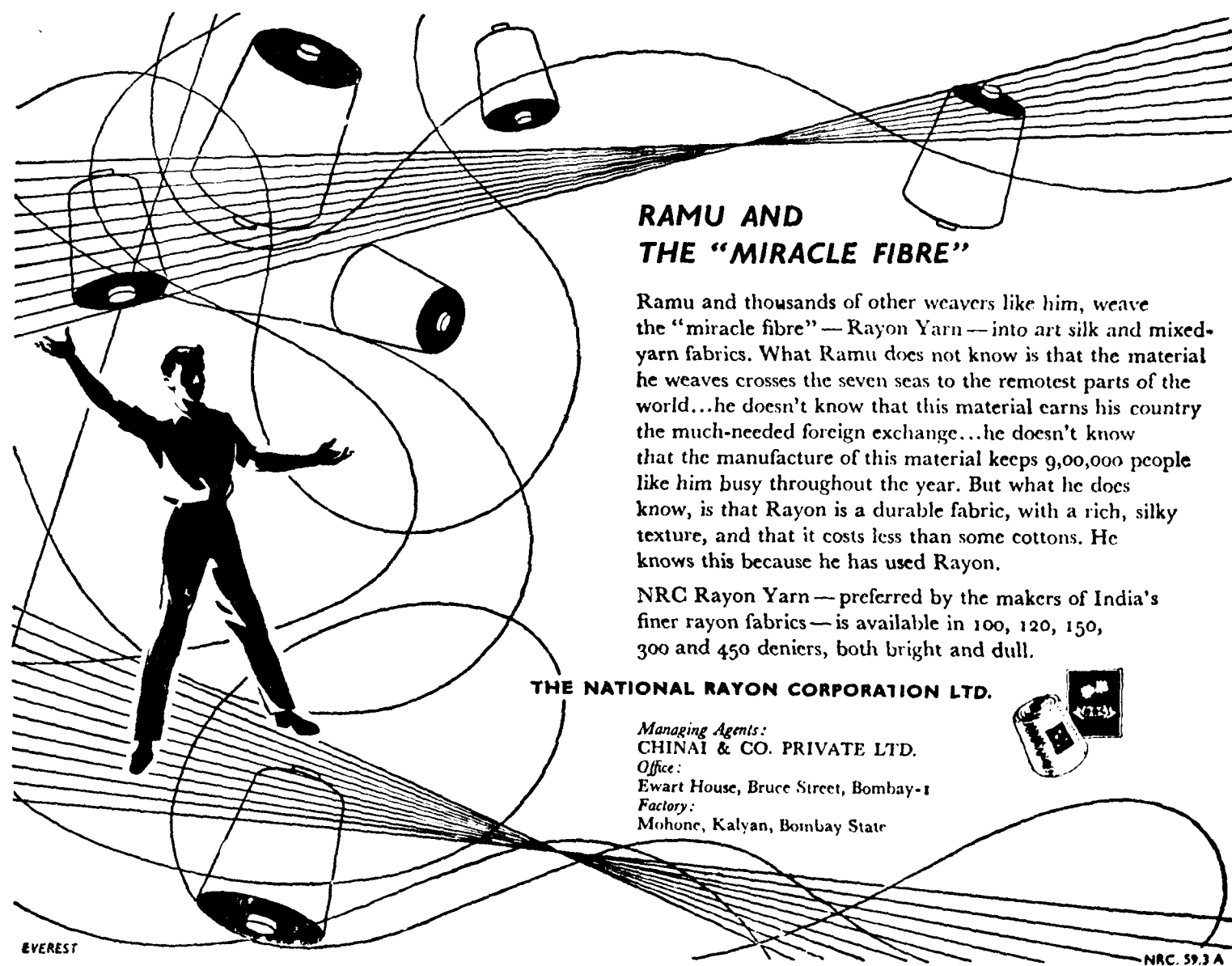
PRODUCTION STATISTICS

It is worthwhile mentioning that ever since the commencement of production at the end of 1956, there has been a steady increase in production as shown by the figures given below:

	Production
1956-57	5.97 lakhs
1957-58	27.88 "
1958-59	65.00 "

For the year 1959-60, we have a production target of over a crore of rupees and we have every hope of reaching this.

It can now be confidently stated that we have overcome most of the teething troubles of this new industry and that the Bharat Electronics factory will steadily advance towards its peak production target and satisfy the vital needs of the Defence Services and other Government Departments to the full.



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Ramu and thousands of other weavers like him, weave the "miracle fibre" — Rayon Yarn — into art silk and mixed-yarn fabrics. What Ramu does not know is that the material he weaves crosses the seven seas to the remotest parts of the world...he doesn't know that this material earns his country the much-needed foreign exchange...he doesn't know that the manufacture of this material keeps 9,00,000 people like him busy throughout the year. But what he does know, is that Rayon is a durable fabric, with a rich, silky texture, and that it costs less than some cottons. He knows this because he has used Rayon.

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The Cementation Group of Companies

THE Cementation Group, comprising 70 British and overseas companies, undertakes civil, mining and specialist engineering work all over the world.

The parent Company—The Cementation Company Limited—has its head office at 20 Albert Embankment, London, which also serves as the Group's headquarters.

In addition, the parent Company has seven overseas branches—in India, Pakistan, Iran, Iraq, Ceylon, Cyprus, and Nigeria. The various overseas subsidiary companies are located in North and South America, Europe, the Middle East, Africa, and Australasia.

The Group employs a permanent staff of more than 5,000—including a high proportion of qualified engineers and administrators—in addition to temporary staff and labour that may be required at any time for any particular contract, either in the United Kingdom or overseas.

Since its inception over 40 years ago—in 1919, when the parent Company was formed—the Group has grown steadily and has become at the same time wholly international in character. During the past ten years alone, more than 7,000 civil, mining and specialist

engineering contracts have been undertaken in 25 countries—including 450 contracts in India.

Long Connection With India

The Cementation Group has a long record of service in India, extending over a period of more than 30 years. It has undertaken a variety of important works for various clients, including Government of India, Bombay Municipality, and private enterprise.

Contracts executed in recent years include design and construction of a 90,000-ton capacity silo at Sindri; the strengthening of the Tansa Dam, Bombay; design and construction of various items of steel plant for the Indian Iron & Steel Company Ltd.

In addition to its work as civil engineering member of ISCON for the Rs Crores 133 (£100 million) Durgapur steelworks project, the Group is currently undertaking construction of a reinforced concrete jetty and other structures for the new atomic reactor station at Trombay. Other contracts include work on the Kotah Barrage.

World-wide Major Contracts

Elsewhere in the world, the Group today is executing a number

of important contracts, including the construction of a Rs Lakhs 113 (£850,000) at bridge at Khorramshahr in Iran; drilling and grouting work on the Kariba Dam, Southern Rhodesia; shaft-sinking for the Mufulira Copper Mines, Northern Rhodesia; site investigation, drilling and other specialist engineering work for the new Cameron Highlands hydro-electric project in Northern Malaya.

In the United Kingdom, current major contracts include the construction of a dam, tunnels and other works in connection with the Ffestiniog pumped storage project, North Wales; and similar work in connection with the Rheidol hydro-electric project in Central Wales. The total value of these two contracts, which are being executed for the Central Electricity Generating Board, is Rs Lakhs 800 (£6 million).

Other Group Activities

In addition to its work in the fields of civil, mining and specialist engineering, the Group undertakes geophysical surveys in all parts of the World—for major oil companies and other clients.

In the United Kingdom, other subsidiary companies produce a

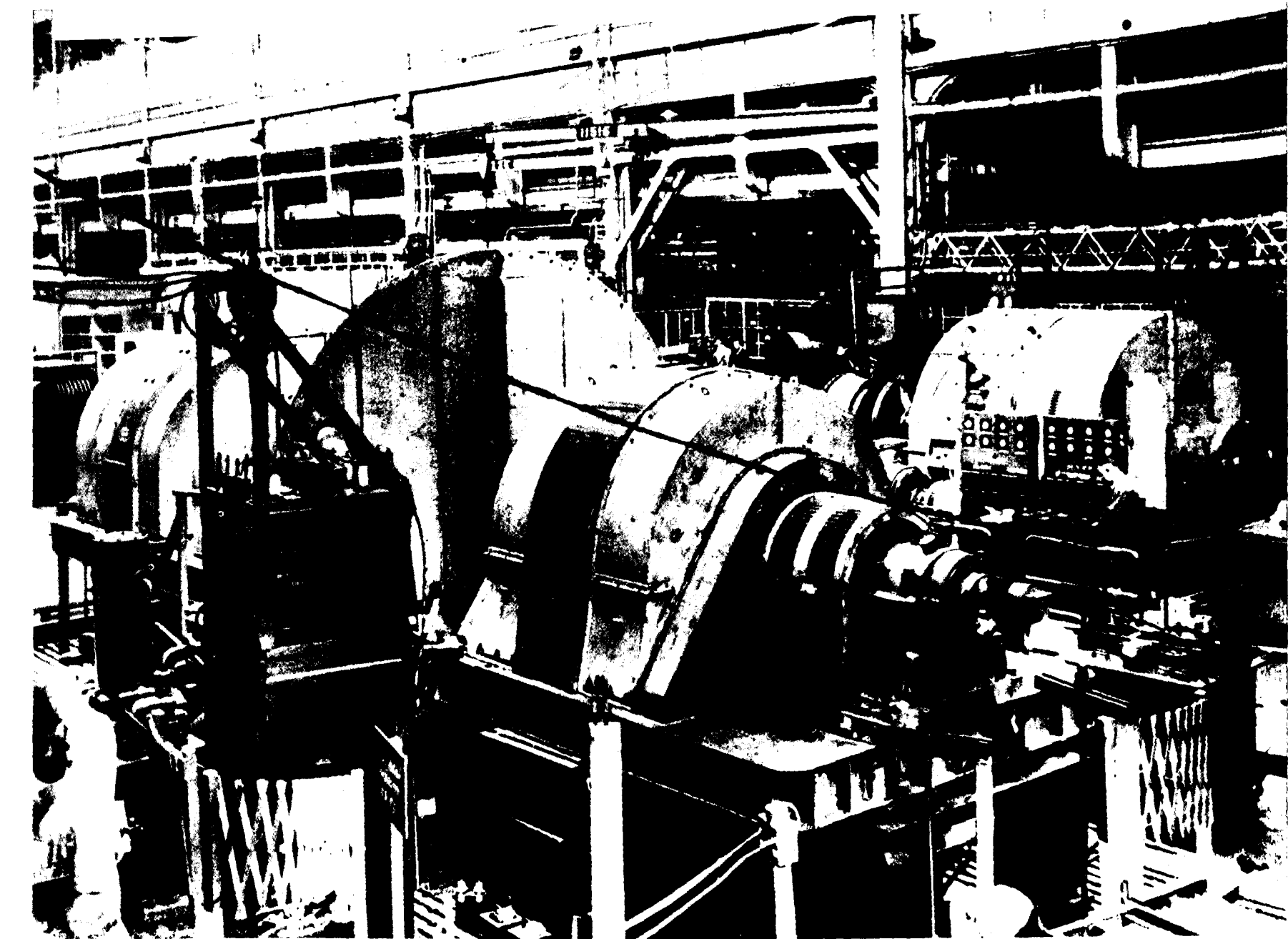
variety of materials and finished products for the engineering industry—including concrete additives, industrial abrasives, anti-vibration mountings for heavy machinery, and lightweight concrete aggregate.

The main engineering Works of the Group are situated at Doncaster, in the North of England. There, a total staff of 550 is employed—primarily in connection with the maintenance and development of engineering equipment employed on various contracts.

The Group also has its own test and research laboratories in London, Doncaster, and other selected centres both at home and overseas.

At 20 Albert Embankment (the Group's headquarters) a total of 400 staff is employed in the nine-storey building. The various departments and sections of the parent Company represented include civil engineering, design, cementation, piling soil mechanics, and soil stabilisation. In addition, a number of subsidiary companies are represented.

Twenty Albert Embankment is also the location of Durgapur London Office—where overall co-ordination of civil engineering for the steelworks project is effected.



ISCON

A SYMBOL of the country's aspirations for arduous industrial development, the Durgapur Steel Works, one of the trio that are now being erected in the country, has been making fair progress toward completion. In March 1959, the first coke oven battery was put into stream. The inauguration of the first blast furnace by the President marked yet another significant phase in the progress of construction work on the project. The first phase of construction which has just been completed include the coke oven battery, one blast furnace, the foundry and engineering department and part of the power plant. The project has to run three more phases of construction for final completion.

A product of joint Indo-British endeavour, the Durgapur Steel Works furnishes an example of wider commonwealth co-operation. It was the technical mission headed by Sir Eric Coates, and sponsored under the Colombo Plan scheme which recommended the establishment of an integrated iron and steel plant with a capacity of 1,000,000 ingot tons, at Durgapur in West Bengal. British readiness to assist the project both with foreign exchange and technical know-how gave it final shape. A steel consortium, the Indian Steel Works Construction Company (ISCON) representing the cream of British steel talent took birth and signed a contract in the nature of a

package deal, with the Government of India undertaking the supply and erection of the complete works connected with the steel project. The contract valued at £105 million is divided into two parts, approximately half the amount to be spent on work in India and the remainder to be used for equipment from the UK.

The firms associated with the consortium are Davy and United Engineering Company Ltd, Simon-Carves Ltd, Head Wrightson Iron and Steel Works Eng. Ltd, The Wellman Smith Owen Engineering Corporation Ltd, British Thomson-Houston Ltd, English Electric Co Ltd, General Electric Co Ltd, Metropolitan-Vickers Electrical Export Co Ltd, Sir William Arrol & Co Ltd, Cleveland Bridge and Engineering Ltd, Dorman Long (Bridge and Engineering) Ltd, Joseph Parks and Son Ltd, The Cementation Company Ltd, Iscon Cable Group (Siemens Edison Swan Ltd and Pirelli General Cable Works Ltd).

The association of the best names in the British industry has not only tended to expedite the work on the project but has also given the most modern face to every aspect of the work involved in the project. Such of the works as have been completed bear ample testimony to this. The Central Engineering Maintenance Department which is a vital part of the whole steelworks and which is a contribution of Davy and United Engineering Company Ltd has been fully equipped to undertake all the complex variety of day-to-day servicing and repair operations required under a system of planned maintenance. The Iron and Steel Foundry, yet another contribution of Davy and United Engineering Company and designed to be a service department

Equipment for Durgapur Steelworks on test at Metropolitan-Vickers Trafford Park Works (Manchester). Photograph shows:—

(On Left) The flywheel motor-generator set for the structural mill roughing stand (2,000-h.p. driving motor at near end).

(On right) The 2,500-h.p. driving motor for the structural mill roughing stand.

Metropolitan-Vickers is a member Company of ISCON (Indian Steelworks Construction Company Ltd.)—a Consortium of 13 of the leading manufacturing and electrical firms in the U.K. who are responsible for the construction of the Durgapur Steelworks.

for the steelworks, has been equipped with the most modern production aids.

The initial target of output at Durgapur is 1 million ingot tons. However, provision has also been made for additional soaking pits, and finishing mills to be added at a later stage to enable the full ingot steel making potential of 1.25 million ingot tons to be converted into rolled products. Further, the layout of the works has been so arranged as to enable the various production departments to be further expanded to achieve an ultimate output of 2½ million ingot tons.

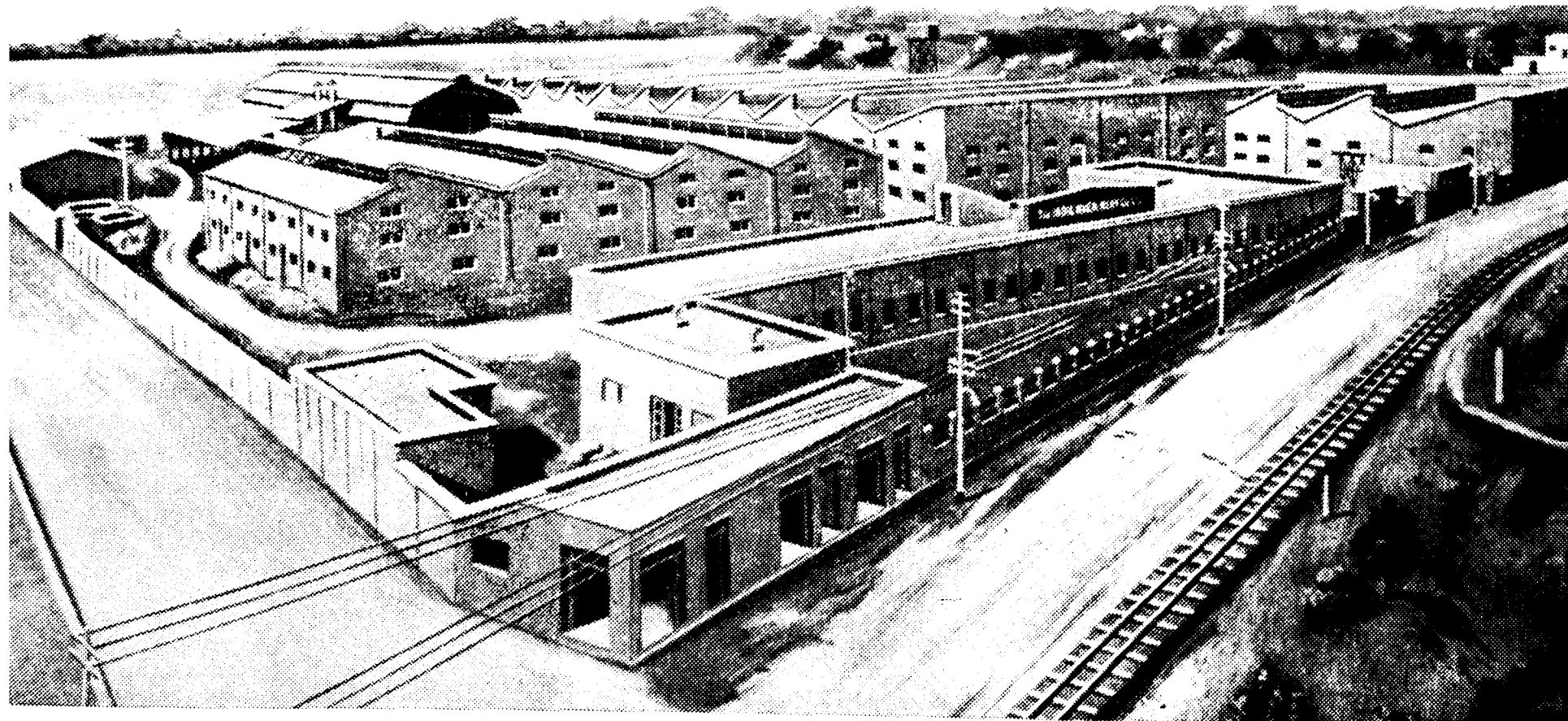
The principal sections of the steel plant designed to be erected at Durgapur would consist of the Coke-oven plant with 234 ovens arranged in three batteries each of 78 ovens. By-product plant, Iron Melting plant with three blast furnaces each of 27 ft. hearth diameter capable of producing approximately 1,250 tons of iron per day and plant Steel-smelting Plant with two 800-ton hot metal mixers and 8 basic open hearth furnaces, the rolling mill with a 42" Billet Mill a 32" Intermediate Mill and a 26" Medium Section Mill, a continuous merchant mill and a continuous Billet Mill, a sleeper bar plant and a fish plate plant.

The designed programme for finished products include heavy forging blooms, forging blooms, forging billets, billets for re-rolling, merchant bar sections, light and medium sections, sleeper bars and wheels and axles. The by-products produced in the coke-oven plant department include Benzene, toluene, xylene, solvent naphtha, crude tar, and bagged sulphate. The project has now only reached the pig iron producing stage and has to cover three more phases for final completion. Stage two scheduled for completion by 30th April 1960 will include the second coke oven plant, second blast furnace, part of the steel making plant, and part of the mill plant. The completion of the second phase would also mark the beginning of rolling and steel-making at Durgapur. The third phase will see the completion of the coke oven plant, the blast furnace plant and the rolling mill plant.

In the final stage ending with July 1961, the steel plant and the axle and wheel plant would become ready for production and when that is reached and the work finished, ISCON would have done a splendid job of erecting one of the first steelworks that would forever be remembered as a signal contribution to India's industrial development.

EARTH
CUTTING
FOR
STORM
WATER
DRAINS.
AT
DURGAPUR





DASSNAGA

India Machinery

PIONEERS in machine making, the India Machinery Company Ltd. are now one of the leading producers in the field. Incorporated in 1937 as a public limited Company, the IMCO has, by addition of new items and expansion of capacity for old ones, grown to giant size. The important categories of production at present are machine tools, cotton mill machinery, printing machines, weighbridges and jute mill machinery. If the different items of machine tools, the different types and sizes of printing machines and the various descriptions of jute mill machinery are to be reckoned, production at IMCO would run into an impressive list. The machine tools produced include lathes, wheels, planers, slotting drilling, milling and boring equipments of various sizes. The cotton textile machinery section manufactures looms of all sizes in addition to sizing machines and tapelooms. The jute section comprises roving and spinning machines, softners, looms etc while printing machines are manufactured in three sizes.

The products are thus of a range and importance as not only to give a preeminent position to the IMCO among the industrial establishments surrounding Calcutta, but also to make it a vital and radiating force in the industrial development of the country. The present accent on machinery manufacture in the industrial policy of the Government would provide a better focus for a proper appraisal of the role the IMCO has played in stimulating industrial development particularly in the eastern region. In the present conditions of foreign exchange shortage, it is on the extent and scale of machinery manufacture within the country that the pace of industrialisation depends, and it is the lack of adequate facilities for such

manufacture that is emphasised in the industrial backwardness of the country. Though this line of the industry is of insignificant size in relation to the needs of the country, the contribution the IMCO has made by virtue of having pioneered production cannot be exaggerated.

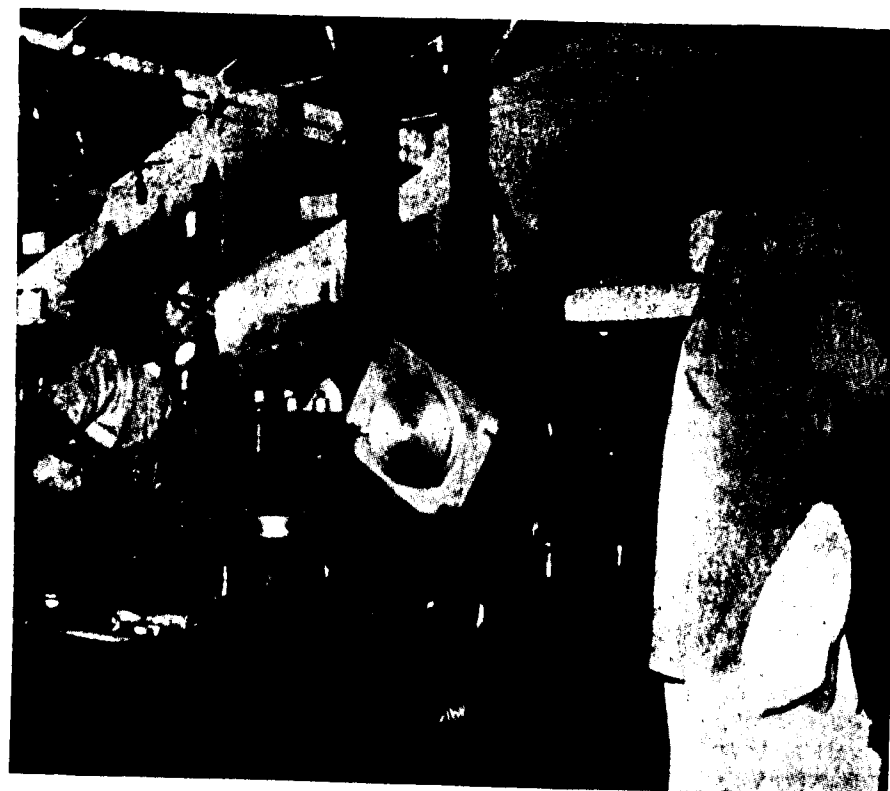
Both in terms of value of investment and value of manufacture weighing machines would seem to constitute the most important line of production at IMCO, and it is in this field that the greatest strides have been made by the organisation. The largest varieties are manufactured in this section and include the Atlas Railway Wagon Weighbridge, Atlas Truck Weighbridge, Atlas Dormant Weigher, Atlas Lorry Weighbridge, Atlas Buffalo

Cart Weighbridge, Atlas Automatic Railway Wagon Weighbridge, Atlas Self-indicating Portable Weigher, Portable Platform Weigher, Atlas Person Weigher, Atlas Beam Scales, Atlas Parcel Balance, Atlas Letter Balance, Atlas Extra-fine Bankers' Scale, Atlas Druggists' Balance etc. It is evident that the Company produces machines to weigh anything from camel hair to locomotives and the capacity of the machines range from one ton to 300 tons. The stream of new models that are being introduced testifies to the diligent care displayed by the management.

Production of weighbridges of different types during the period July 1958 to June 1959, the latest period for which production figures are available, amounted to 203. Against this the installed capacity

is of the order of 336. Similar in respect of platform weighers while annual production capacity is to the tune of 600, production between July 1958 and June 1959 was of the order of 522. There thus underutilisation of capacity in respect of both weighbridges and platform weighers which is explained by inadequate demand. It is a feature of weighbridges and platform weighers production at IMCO that actual production is carried on the basis of orders received and not in anticipation of demand. Incidentally it may be mentioned that the IMCO is the only concern in the country which is capable of turning out weighing machines of the capacity of 300 tons.

Production capacity on single shift basis for the other articles are: machine tools-120 to 140; printing machines-60 to 72; textile looms 600 to 720; jute loom 300 to 360. Against this production during July 1958 to June 1959 was 55 for machine tools, 305 for textile looms, and 12 for printing machines. The gap in utilisation of capacity particularly in respect of textile looms and printing machines is attributable as in the case of weighbridges and platform weighers to inadequate demand. The company, however, made commendable headway in the production of such articles as chucks, vice etc which constitute as it were a miscellaneous category of production at IMCO. Production of vices numbered nearly 637 between July 1958 and June 1959 while the number of chucks produced during the same period amounted to 19. An important aspect of activities at IMCO is the provision made for welfare work for the labour employed in the factory. The present facilities include a recreation club, library, arrangement for music, arrangement for indoor and outdoor sport, primary school for children of workers etc. In all these, a distinct emphasis on the modern concept of human relations



Mr. Alamohan Das at the Machine Shop.



Bharat Jute Mills.

the labour management relations is discernible.

The IMCO is now poised for a new phase of expansion embracing all the existing categories of production. The significance of such a venture from the point of view of internal production as well as the potential rise in demand could be obvious. The Third Plan has envisaged development of industries at a more accelerated pace than in the Second Plan. With the resulting widening of the gap in internal production, the scope for expansion would also be considerably enlarged. The gap

present is greatest in respect of machine tools. Following the advent of protection to machine tools production in 1946 some new firms have sprung up, notable of

which is the Hindustan Machine Tools at Bangalore started in the State sector with foreign collaboration. However internal production is still insignificant compared with total requirements. This has entailed imports of machine tools at a cost far exceeding the value of indigenous manufacture. A further spectacular rise in demand is bound to come in the wake of the expansion envisaged in shipping and railways. Having struck the original path in production, it is but fitting that the IMCO should play its legitimate part in increasing the scale of indigenous capacity for machine tool manufacture which is of strategic importance for general industrialisation.

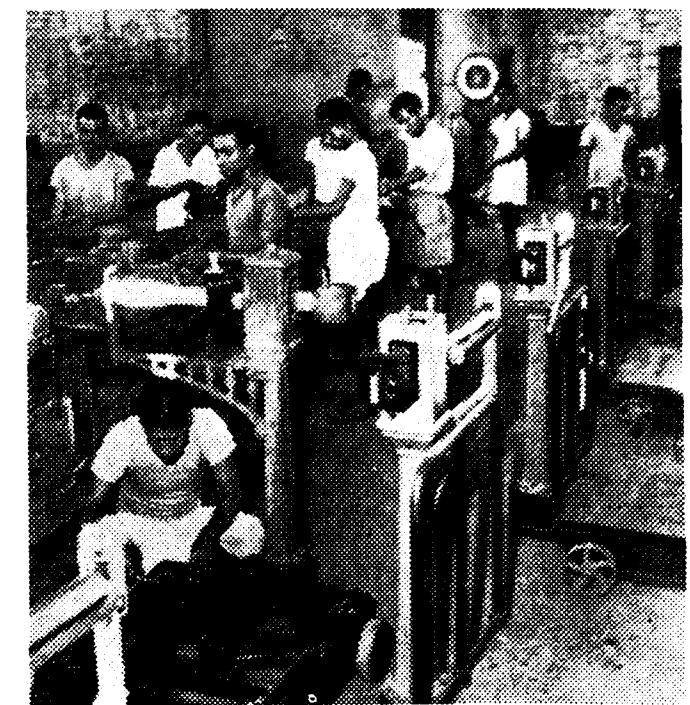
The IMCO has now come to represent

the triumph of Bengali entrepreneurship in the home soil which has received nourishment from many sources both Indian as well as foreign. The growth of the IMCO from the scratch to its present size would tell a story of industrial daring that is hardly heard of now-a-days except as echoes from the past. It was in 1931 that Mr. Alamohan Das the pioneering genius behind the project laid the foundations for what subsequently bloomed into a giant organisation that is IMCO today. When it was started however, it was intended to manufacture only weighing machines of small capacities. The very name B. W. Scales given to the company at its birth was suggestive of its primary preoccupation at that time. However, the opening of this concern only served to kindle the passion for further industrial adventure. In 1933, Mr. Das started

Jute Mill was in a sense an offshoot of the IMCO, for the machinery for the mill was all manufactured by the IMCO. Production at present includes hessian, sackings, twine etc. Weekly production now runs at the rate of 75 tons for hessian, 62 tons for sackings 10 tons for twine, and 5 tons for weaving. The mill has about 220 looms at present and employs about 2,000 workers.

The Arati Cotton Mill was started in 1949 and has 21,000 spindles and 215 looms now. Production of yarn amounts to nearly 5,500 lbs a week, while production of cloth amounts to about 16,000 yards per day. The mill gives employment to nearly 1,000 workers.

Situated in close proximity to each other these three namely, the India Machinery Company Ltd, the Bharat Jute Mills Ltd and the



Scales Assembly Dept.

a unit for the production of engineering goods. Out of the fusion of these two was born the India Machinery Company Ltd. Production was commenced in May 1937 and the first machine was sold on 3-5-1940. The Company now employs about 600 workers and is managed by Messrs Dass Group Private Limited Managing Agents.

Apart from the IMCO, the Dass Group now control a chain of industrial undertakings which include the Bharat Jute Mill and the Arati Cotton Mills. Set up in 1937 the Bharat

Arati Cotton Mills Ltd are the fruits of the dedicated endeavour of Mr. Alamohan Das for the industrial progress of the country. In the process of nurturing these industries, Mr. Das created an industrial township in a place previously infested by reptiles and wild animals. The township of Dassnagar very appropriately named after him and which houses the chain of industrial establishments set up and nurtured by him now stands like a monument to his own farsighted genius and industrial vision.

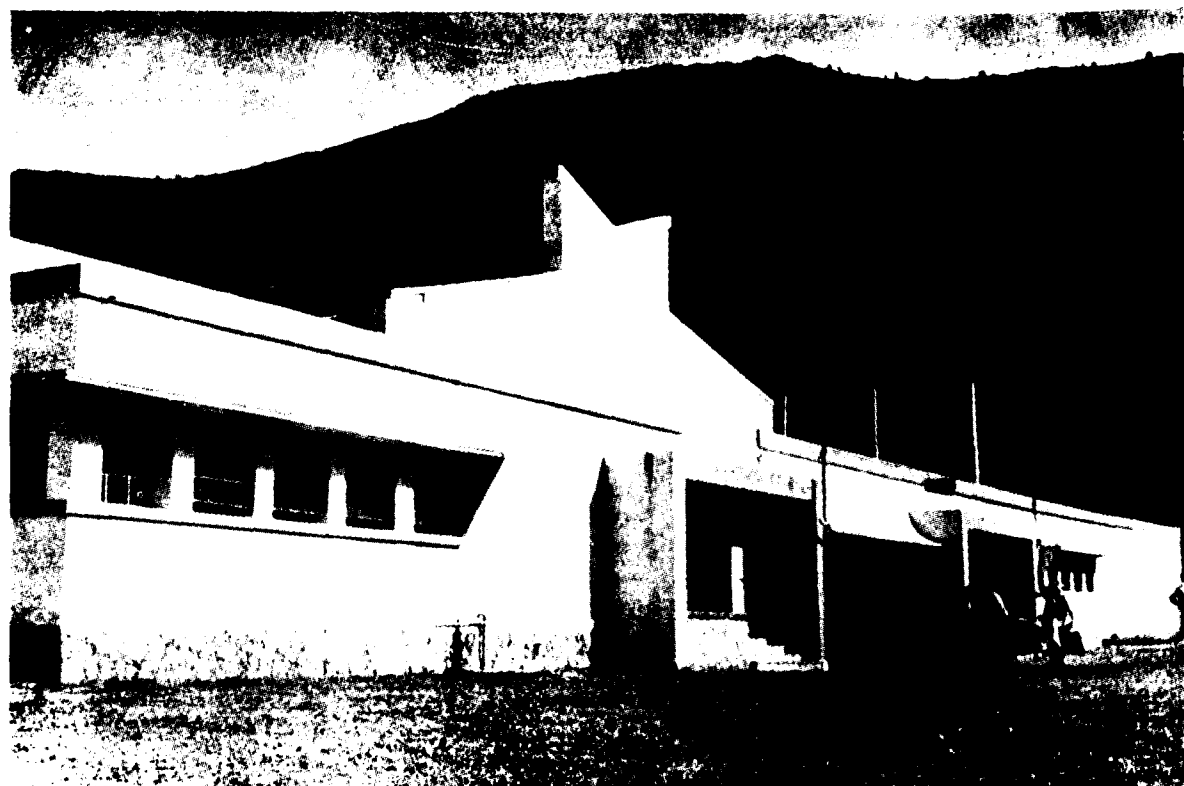


Arati Cotton Mills.



India Machinery Workshop.

The Indo-Swiss Synthetic Gem Manufacturing Co., Ltd.



A joint venture of Indian and Swiss industrialists the Indo-Swiss Synthetic Gem Manufacturing Company Ltd. at Mettupalayam, in the Madras State, represents a rare industry. It is India's first and Asia's first factory of its kind. In the whole world there are only eight factories producing synthetic gems five of which are in Switzerland. The other three are in France, United States and Germany. It is significant that UK which is one of the industrially advanced countries in the world is without one. That India has joined the select countries producing synthetic gems is indicative of her growing industrial stature.

In the background of the growing emphasis on industrialisation, the birth of this new industry marks a significant event. For, innumerable are the applications of synthetic gem stones in industries. Indispensable for precision

instruments, they find uses in gauges, bearings and standard weights for chemical balances, aircraft instruments, thread guides in textile industry, wheels and jewels in watch industry, styli for chart recorders, permanent gramophone needles, windows of photocells, burner nozzles, atomizer orifices, extrusion dies, refractory supports and inspection windows in high temperature furnaces. A plant for the manufacture of synthetic gems was an obvious necessity for India.

Specialists in the line, Switzerland leads the other countries not only in the matter of total production but also in respect of quality and other matters of technical bearing and importance. Even India had been obtaining her requirements of gem stones valued at Rs 30 lakhs annually from Switzerland. It was therefore most appropriate that the Indian

participants in the venture should have obtained the collaboration of Switzerland. This should ensure the development of the company along proper lines.

Constructed at a cost of Rs 22 lakhs, the factory was opened on December 20, 1957 by Union Minister for Industry, Mr Manubhai M. Shah. The factory has a production capacity of 40 kg stones a day in the form of rough boulders. The annual turn over at the factory is valued at Rs 25 lakhs. Production at the factory commenced on 1-11-1957 and since then the factory has been meeting the entire Indian demand for synthetic gems of about 12 tons a year.

The process of manufacture of synthetic gems begins with the boiling of solutions of aluminium sulphate and ammonium sulphate in ceramic vats. The two solu-

tions after proper boiling, are run into a crystallizer where after cooling, tiny crystals of the double sulphate of ammonical alum are formed. The next process involves the separation of the crystals from the mother liquor in the centrifugal and their drying in an electrically heated drier. The produce is then treated in an oil-fired muffle furnace which gives a light weight mass which is then screened through a vibrating screen to obtain a powder of particle size 10 mm. The product is now ready for the final phase of fusion which is done in special Verneuil blow pipes from which single crystals of alumina start growing and attain the desired size (diam. 3 in. and length 2½ in.) in about 2½ hours.

The factory is at present supplying to the needs of about 2009 factories organised on cottage industry basis engaged in lapidary work (cutting and polishing) connected with synthetic gems.

The location of the factory at Mettupalayam, on the right bank of the Bhavani river and near the foot hills of the Nilgris is ideal both from the point of manufacturing requirements and accessibility to raw materials and consuming centres. The paid up capital of the Company is Rs10 lakhs made up of 10,000 equity shares of Rs 100 each. The share of the Indian investors in the investment of the Company is 51 per cent while the balance of 49 per cent is held by the Swiss industrialist Mr J. F. Hoffer and his associates. The assets of the Company were valued at Rs 24,41,117 as on 30-6-1958. A product of Swiss collaboration, the Company owes its origin and subsequent growth into a successful manufacturing concern to the dynamic enterprise and enthusiasm of Mr N. Mahalingam Mr N. Chandappa and Mr M. G. Sharma who are now members of the Board of Directors.

MINING MACHINERY IN HUNGARY

(By: PETER SUGON, B.E., Mining Mechanical Engineer.)

ONE of the essential economic problems of every country is how to exploit its available raw material resources in the quickest and most economical way. Rapidly developing industrialisation requires ever increasing quantities of basic materials and energy, produced as cheap as possible. In mining ever wider areas are to be mechanised in order to meet the requirement. As for the rest this is also motivated by the fact that coal deposits to be exploited are found now-a-days always at deeper layers.

Uptodate mechanisation of mining is carried out on such a large scale that manpower is going to lose its formal importance. The acceleration of working speed at a highly increased rate provides at the same time for a higher life protection and increased physical welfare of miners.

The Hungarian Mining industry adjusting itself to the designs, required by rough geological mining conditions, manufactures a series of exploiting and conveying equipments.

Among the countries manufacturing mining equipments, Hungary now occupies a unique and pre-eminent position. The Hungarian Mining Machinery Designing Institute has been designing uptodate mining machines of all types for a number of years. The manufacturers of these machines are the Hungarian mining machinery factories, two of them being in Budapest, and the other three being placed in the different mining areas of Hungary. Extensively used in almost all the countries of Europe, the products of Hungarian mining machinery industry have been in great demand in Latin America also. 50 years of experience combined with unremitting research has enabled the Design Institute and the manufacturers to secure a high degree of technical perfection in the machines. The most important items of manufacture are the Koepe-pulley mine hoists, the single drum and double drum mine hoists, diesel flame proof mining locomotives, the triple drum scraper winch, the Hidasi loader, the Kota loader, the F-5 cutter loader and different types of scraper conveyors.

In the following we give you a brief summary of the newest Hungarian mining machines.

The first to be mentioned is the Kota Loader. There are three main points in which this machine differs from other well-known loaders. The first is the principle of loading. By means of the star wheels on the nose cap, this machine forces its way into the heap of the blasted off coal yield, heaping it on the machine itself. The

coal falls into the trough, from where it is discharged by means of a scraper chain and filled into tubs behind the machine or loaded up onto a transporter.



The back of Kota Loader—the device loads into a mine-car.



Kota Loader loading big sized coal.

The second difference is that the mobility of the machine is independent from the unevennesses of the bottom. Namely, the whole equipment can be moved along a pipe fixed to the timber-work. It can be moved not only forward and backward along this pipe, but also in a circular arc around it so that practically an area of 150 sq. ft. can be "swept" in only one suspension.

The third difference is the light weight of the machine. Some foreign types of this capacity (i.e. 60t/h) often approach a weight of 6 tons. The weight of the Kota Loader, however, is 175 kg. including the complete electric equipment and carrying gear. Should the job site get under a temporary pressure or be endangered by some other distress (water inrush, running sand, etc.) the machine can be dismantled and rescued in no time. It can be easily trans-

ported by four men and can be erected in 10-20 minutes.

The operating voltage of the equipment is 24 V which is perfectly without danger for the human body. The switchgear is designed in a way that in case of any damage of the earth connection the push button cannot be actuated. Thus the possibility of using the machine without adequate earth connection is precluded. The re-stretching of the pull chain, the exact adjusting of the motor and, in general, tightening of any screw

The machine has a frontal part in the form of a slope of about 30 degrees tilt through which the coal is delivered up to a rubber belt by means of two endless chains equipped with grabbing arms. This rubber belt is followed by another so-called collecting band which can be adjusted under an angle of 90° in both directions. The use of the rubber belt instead of the scraper conveyors supplied with some foreign types, is no doubt, a progressive feature of this machine, because



The Hidasi Loader, loading into mine-tub. The collecting belt is adjustable under an angle of 90°, in both directions and as well be swivelled in vertical direction.

and bolt can be accomplished by means of only one spanner equipped in the handle bar.

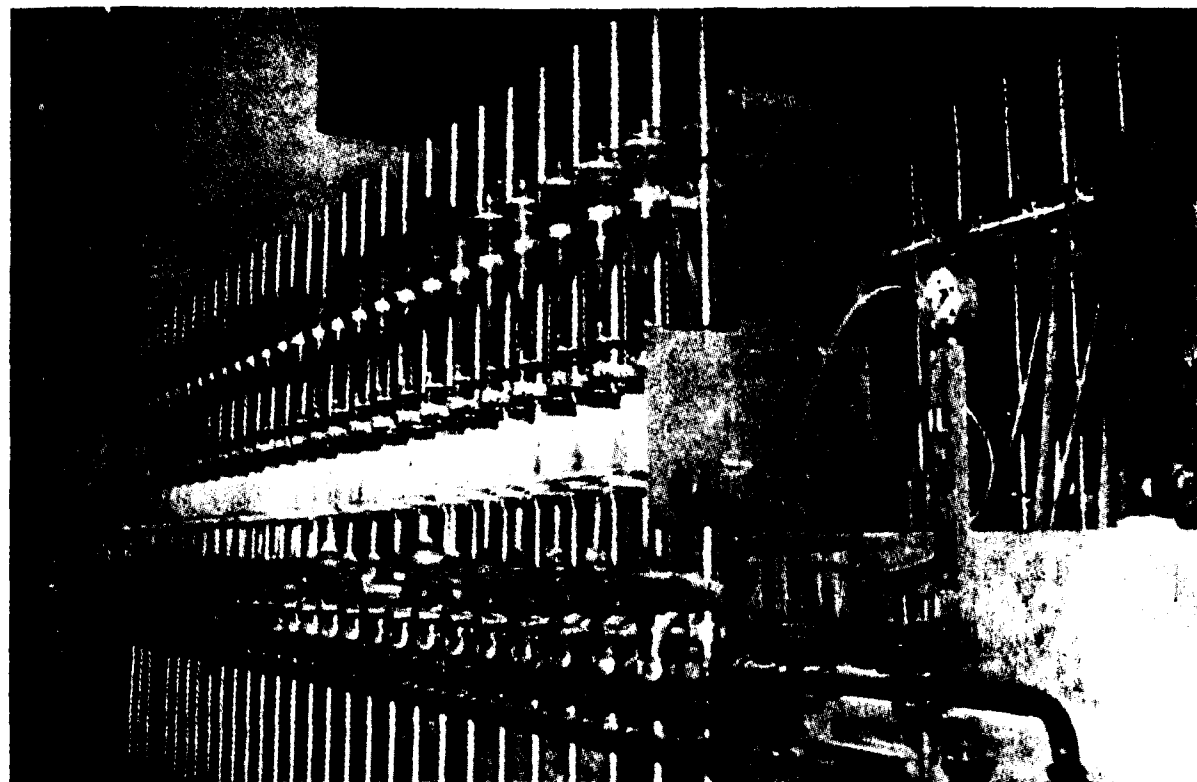
The Hidasi Type Loader is a light self-propelled machine, which can economically handle coal heaps from a thickness of 6 inches. The surface pressure on its caterpillar tracks is 8.2 lbs./sq. inch enabling it to move on soft soil. It is rather more mobile than the most of foreign types of the same design principle but of very high weight, leaving apart from other rail bound machines and therefore, rather limited in use.

The operating principle of the machine is as follows:

Another genuine Hungarian invention is the so-called "Sand Gun" of Professor Kota. By means of this equipment more than 30 million blasts have been accomplished till now without accident. The equipment can be used for stemming bore-holes in open pits or underground mines where compressed air is available on the site.



Sandstemming turbine (sand gun) of Prof. Kota.



Battery of Verneuil Burners: In each burner a single crystal of alumina grows in about 2½ h.r. in the high temperature zone; the high temperature (c. 2000°C.) in the burners is achieved by oxy-hydrogen flame.

The old method consists in making stems of material made plastic by moistening, after having placed the explosive in the bore-holes. Cylindrical bars are kneaded of the material and the blaster, using a filling rod, rammed them with due precaution into the bores. A lengthy and very cautious operation is needed this way and yet no sufficient efficiency at blasting can be obtained with this method even after the most careful preparations. It is known from experience that the explosion blows through the stemming material so that the explosive could produce only about 50-70 per cent of its shattering effect. Besides, the miners have to leave the job site for a longer time because of the poisonous fumes which fill the mine room, making their way through the clay. This lasts till the fumes are cleared away by the ventilating equipment. By means of the "Sand Gun" the sand is injected with such an effort into the hole that it is compacted to one half of its normal volume and, after the operation, it behaves like a rock (it can be knocked). Blasting efficiency is thus essentially higher, the explosive can produce a much greater shattering effect and no poisonous fumes are produced, and it is not

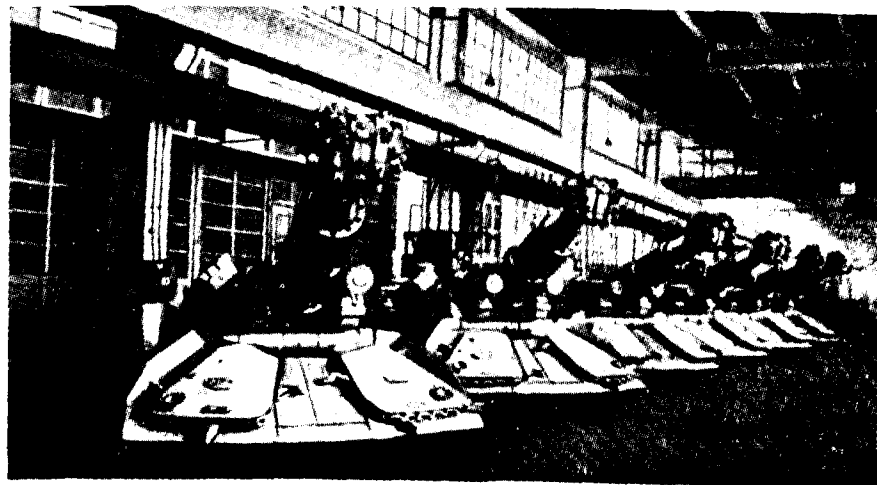
necessary to wait for the fumes to clear away. Besides 30 per cent of the explosive can be saved by this method. There was developed for the case of the shot hanging fire, an equipment by means of which the stemming can be exhausted off the bores.

The weight of the machine ready for operation but without sand filling is about 4 kg.

The F-5 type cutter-loader is one of the outstanding Hungarian-made mining machines. Its work differs essentially from the well-known winning methods practiced

in other designs. The machine is provided with two cutting hemispheres, placed at the end of a bar. On the hemispheres there are replaceable picks in spiral line. Due to their special arrangement every pick has its own trajectory.

The cutting head can be turned in the horizontal and vertical plan by means of an oil-hydraulic device. The machine moves on two caterpillar-tracks. Each of the crawler trucks are driven by a separate 4.6 KW. A.C. Motor. Owing to this the machine can be easily directed to the left or to the right by switching off the motors.



F. 5. Type Cutter Loader at the Work's Assembly.

Coal produced by the cutting head falls on the plough, mounted on the front part of the machine. Two scrapper-chains assembled on the plough load the coal onto a rubber-belt. The scrapers as well as the rubber-belt are driven by separate motors. The conveying capacity of the loader-device is about 70 tons/hour. An additional swinging conveyor carries out the loading into the mine-cars. Switching is effected by a press button system and the switch-box can be placed at a distance of 50-60 feet from the machine.

The machines are widely used in Hungarian mines, primarily in headings. In Northern Hungary, at the Matra-area lignite mines, an advance of the heading of about 1300 feet/month was obtained.

There are great possibilities of using the Hungarian mining machines in the Indian mining industry which is now developing vigorously. No doubt that in such a short description the full range of the Hungarian mining machinery production cannot be given. However, this brief summary could give an idea about the Hungarian mining machinery industry and its stage of development.

THE PRAGA TOOLS CORPORATION LIMITED

By B. VENKATARAMAN General Manager

In the industrial development of India, the engineering industries in the public sector play a significant part. The Praga Tools Corporation is one such engineering industry under the Ministry of Commerce and Industry of the Government of India. The Corporation was incorporated as a Joint Stock Company under the provisions of the Companies Act in May 1943 at Secunderabad and originally functioned in the private sector. Its control was assumed by the Government of India in 1957. Originally, the authorised capital of the Corporation was Rs 1 crore, which at present stands at Rs 1,50,50,000 of which the paid-up portion is Rs 1,35,92,320.

The Corporation was formed for the purpose of manufacturing high speed cutting tools and measuring instruments to meet the then anticipated demand during the post war industrial development of India after the Second World War. The construction of the factory, purchase and installation of machinery etc., were completed on schedule and the Corporation went into production in April 1946. Since then, the manufacturing programme has been diversified from time to time and the Corporation has had a chequered career and has passed through many vicissitudes.

When the Corporation was formed, it was managed by the United Industrial Corporation Ltd., a company in the private sector. In January 1948, while the Nizam's Government was still in power,

the Managing Agency of the Corporation was acquired by the Industrial Trust Fund, which was a Government organization. In 1956, the erstwhile Government of Hyderabad faced with financial and other difficulties of running the factory efficiently, approached the Government of India to take over the management and revitalise it. The Government of India realising the intrinsic potentiality of the Corporation accepted the proposal, and as a first step permitted in 1957 the appointment of its officers as Directors on the Board of Directors of the Corporation.

The next step in the development of the Corporation was in June 1958, when the Managing Agency system was abolished and the Board of Directors assumed direct control. This was soon followed by an investment in March, 1959 of Rs 70,00,000 in the capital of the Corporation by the Government of India. The Government of India and the Government of Andhra Pradesh now hold the bulk of the shares, the former to the extent of 51 per cent and the latter 35 per cent, the balance representing the subscription by the public. Thus, the Government of India now has a controlling interest in the Corporation. The Chairman of the Board of Directors is the Secretary to the Government of India in the Ministry of Commerce & Industry and the majority of the other Directors are nominated by the Government of India.

The Corporation has a well laid out and equipped factory and forge shop at Secunderabad, Andhra Pradesh for the manufacture of machine tools etc. At present, it turns out a wide range of products of high quality such as milling machines, bench lathes, drilling machines, machine tool accessories, such as lathe chucks, drill chucks, machine vices, dividing heads etc. precision tools, auto and diesel parts and railway components, such as screw couplings, piston rods etc. This wide range of products has come about as a matter of progressive evolution with indigenous material and Indian technicians. The Corporation holds a supremacy in the field for some of its products. The accuracy of its precision tools are well known in the engineering industry and are in use all over the country.

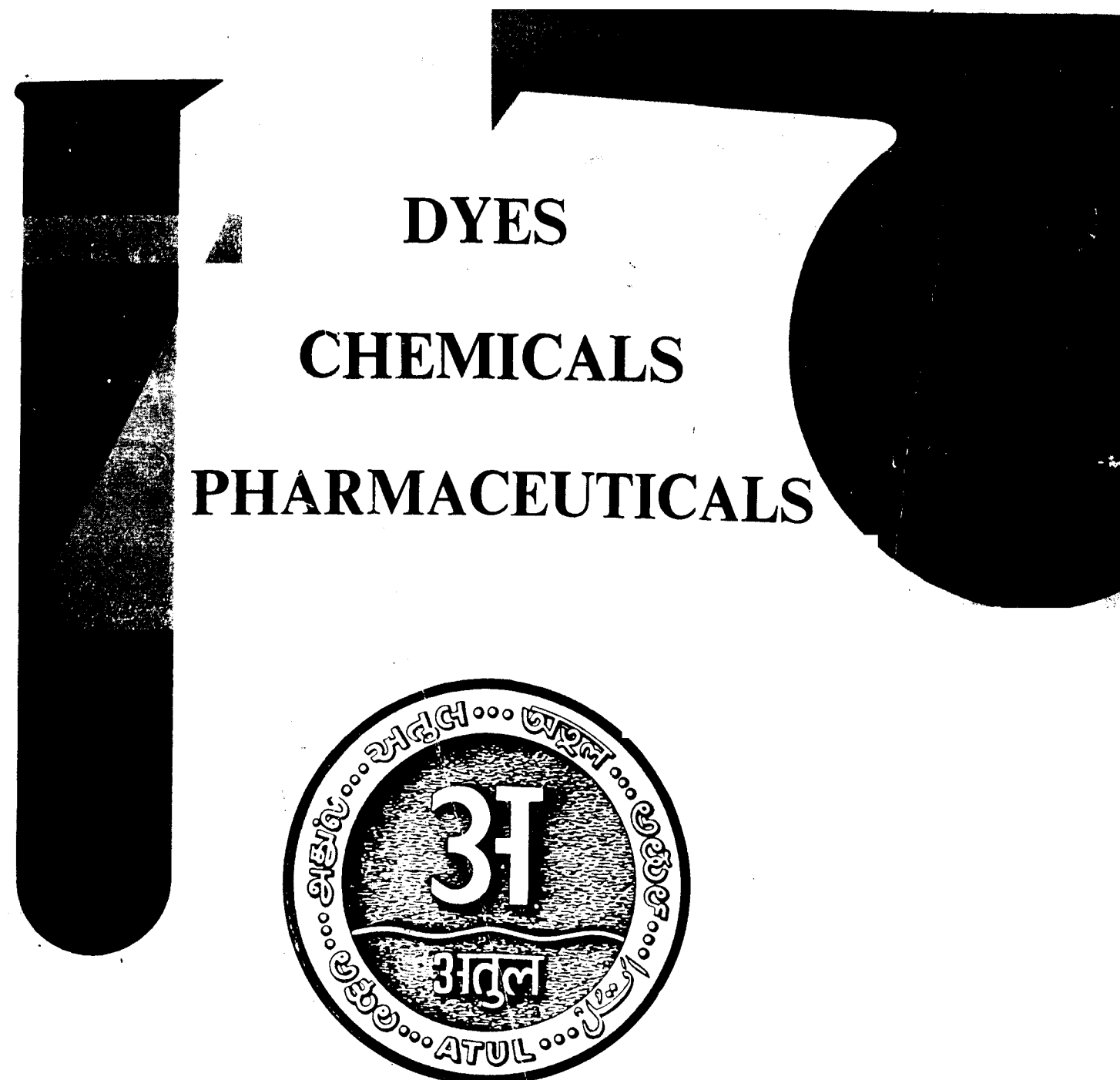
With the investment of a large sum by the Government of India in the share capital of the Corporation, it has become necessary to expand its activities in order to play a vital role in the industrial engineering field. An expansion programme involving considerable expenditure is under contemplation. This envisages two concurrent phases of development. The first phase is to increase the production in the existing lines by suitable reorganisation and expansion. The second phase is towards additional lines of production in machine tools, machine tool accessories and precision tools with foreign technical collaboration.

The Corporation has a well established organisation both for management and production and employs about 1500 workers. Finding and training skilled labour for the industry is important, as skilled staff are hard to find locally, and artisans in the industrial cities like Bombay and Calcutta are not inclined to take service in Hyderabad. The only solution is to recruit men locally and train them, which is being achieved by the Corporation with a good measure of success.

The welfare of the workers has always received due consideration. The management has provided a suitable canteen in the factory. Men working under adverse conditions of heat or hazards are provided with protective clothing while at work. Free milk is supplied to workers in the smithy to keep up their stamina. The Corporation has a good dispensary for the benefit of its workers and a qualified medical practitioner is in attendance during fixed hours. Proper attention is also paid by the Corporation to sports and recreation. Thus, the Corporation is doing all it can for the welfare of its workers.

The Praga Tools Corporation is striving its best to serve the industrial need of the present day growing India and saving valuable foreign exchange. Its products serve to reduce our dependence on imports.

ATUL



THE ATUL PRODUCTS LIMITED
ATUL, via BULSAR, Western Railway