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YOJANA

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ANY LETTER FOR ME ?

SPECIAL FEATURES ON
POSTAL SERVICES

AT the foot of the imposing old fort built in dull yellow sandstone is a young Pipal tree, a haunt of people, busy as well as idle. People come and sit on the raised platform or on the bench under the tree. They smoke *bidis* and gossip in groups or stare blankly. Some women clad in shabby *ghāgra* and red *marwadi* blouses sit on the other side under the tree with handfuls of vegetables for sale. And all around are small shops as though dosing in their dullness.

This is the market at Jaisalmer, a town of 10,000 people, situated in the western corner of Rajasthan. It has the appearance of a large village than a prosperous town. The houses built in the yellow sandstone with intricately carved designs in the front provide a picturesque setting, but many of them are deserted and present a sad sight in the narrow lanes. The Pipal tree is the centre of activity in this drolling market. Under the tree is a small house where people huddle up at the window or sit writing letters to their distant kith and kin. Somebody peeps in from the door to look at the clock clinging like a lazy tortoise on the inside wall. Inside the house a few hands are busy from morning till evening selling stamps and postcards, accepting money orders, clearing and distributing the mail, and receiving or sending telegraphic messages.

This small post office, opened in 1891, receives and sends out about 800 articles either way and about 15 money orders and 20 telegrams daily. It also deals with about 400 savings bank accounts totalling Rs 80,000; about a dozen accounts are operated every day. It sold the National Savings Certificates valued at Rs 44,500 in the two years 1960-62. Mr Bhanwar Lal Deora, the postmaster, says a major part of the traffic in messages or money is due to the Rajasthan Armed Constabulary stationed near Jaisalmer. His small staff includes a postal clerk, a telegraphist clerk, three postmen, a mail peon and a boy messenger.

One of the three postmen is on long leave and not likely to return. It is difficult to find a willing person to do the hard job of a postman in this area. But Babulal Purohit and Kisan Singh Kachhwa seem to be contented with their lot. Babulal

TRUSTED FRIEND o

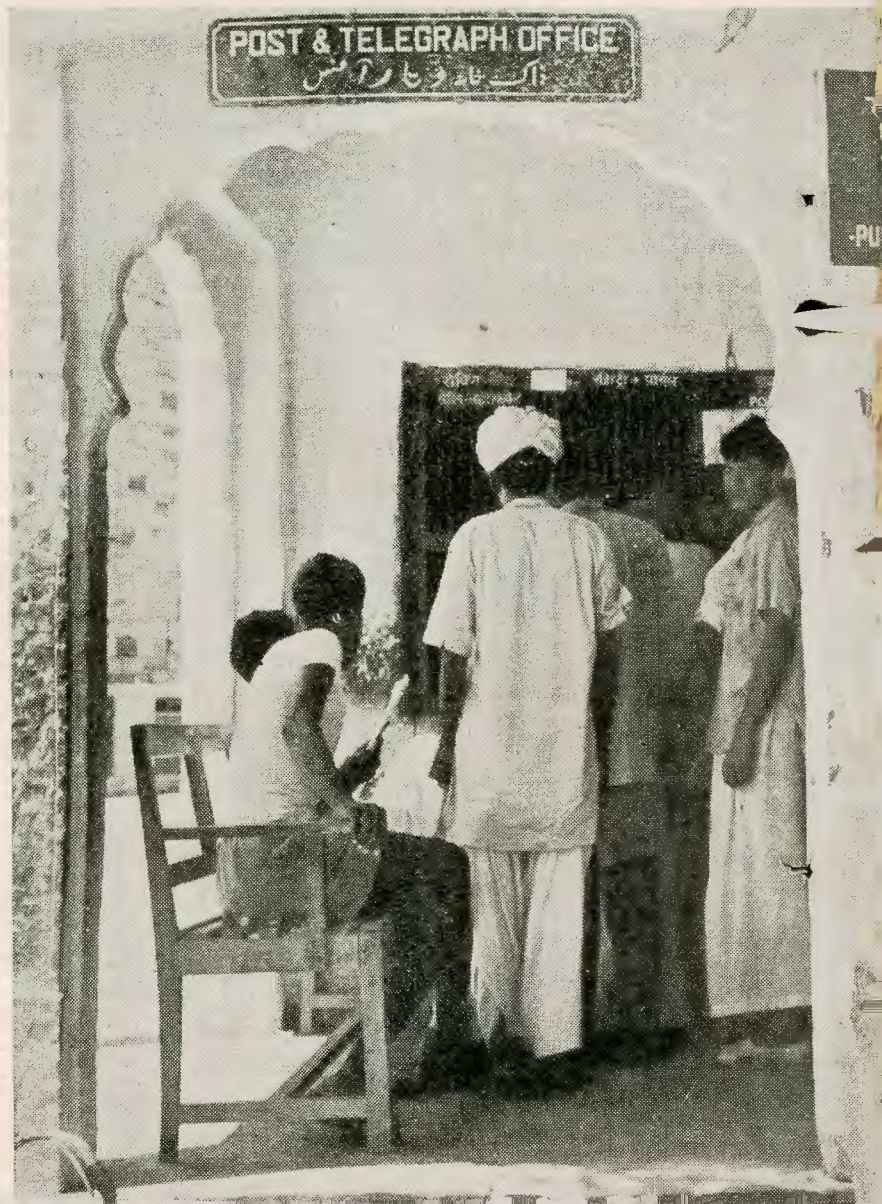
Purohit is 27 years old and Kisan Singh hardly 23 years. Both of them were employed as boy messengers at a very young age. Both have their tales of woes behind and hardships around. Yet they keep cheerful faces and become friends of the people they meet.

BABULAL is a typical postman.

There is nothing very brilliant or outstanding in his life. His is a humble lot steeped in a routine all the year round. He lost his parents within a year before Independence and in the aftermath of communal riots he migrated from his village in Sukkur district of Pakistan to Jaisalmer—his ancestral home. He had passed his middle school examina-

Babulal Brings and Goodwill Land of

tion but could not study further and got employed as boy messenger in Jaisalmer post office. In 1954, he joined military postal service and went to Kashmir. Three years later, he was transferred to the civil postal service and was posted at Pokaran in Jaisalmer district, where he served for a year and a half. He has been



PEOPLE

Letters, Hope in the Desert Jaisalmer

working as postman for the past few years.

His duties as a postman at Jaisalmer are as good as those in any other town. But in addition to the duties in the town, he has to work as a village postman, which perhaps is one of the toughest jobs postmen do in the country. All the three post-



At the Jaisalmer Post Office (left) people flock to the window or sit on the bench under the Pipal tree writing letters, smoking bidis and gossiping, or staring blankly while Babulal on his round is pursued by happy children shouting for their 'Chitthi'.

men have to work as village postmen turn by turn for six months. Accordingly Babulal gets his turn once in 18 months.

A VILLAGE postman has to carry mail to and from the villages covered by the post office. In some parts of the country this type of job might prove a welcome diversion from the monotonous town routine. But in Jaisalmer, it is strewn with hardships. Because Jaisalmer is in a desert.

Story of a Rural Post Office

Yojana Report by
M. K. Pardhy and
Photographs by
T. S. Nagarajan

In the whole of Jaisalmer district, which extends over an area of 16,000 square miles, there are only two sub-post offices under the Jodhpur head office, one at Jaisalmer and the other at Pokaran. They have between them 13 branch offices of which 4 are under the Jaisalmer sub-post office. The number of branch offices is to be increased by 16 more this year. A branch office is run by a local man employed on part-time basis and there is a regular arrangement for carrying mail between the branch office and the sub-office.

The Department is prepared to incur an annual loss up to Rs. 1,000 on each post office. But it is not feasible to open many post offices within this limit as the population is too thin and the mail traffic too small. Consequently, the villages have to be served by the village postman only.

Overleaf



The distances between the villages are long. Often the postman has to walk over 50 miles from Jaisalmer to deliver the mail. The villages have been divided into four beats, each to be covered in a week. As a result, a village gets its turn once a month, and the postman has to walk a distance of over 100 miles every week. Water is so scarce that for miles together not a well or pond is seen on the way. During summer, which lasts six months, this land of mirage becomes a hot furnace under the blazing sun and not a tree on the way to give shelter to the gasping traveller. To add to the hazards, fine sand blows with the hot gushing wind threatening the traveller to bury him under a moving dune.

Babulal and his colleagues have to put up with this strenuous journey with inadequate means. They carry with them water bags to quench the thirst as the throat gets parched every five minutes. It is difficult to carry one's week's ration and cooking utensils over such long distances under such hazards. Therefore they have to depend on the goodwill of the villagers or be contented with handfuls of fried grams in their bags.

It is not the bread alone that this hard service earns for Babulal. Perhaps life would have been a loathsome desert for him had there not been the affection and respect in the people he meets. He is loved and liked by all, for he brings to them dear tidings from their distant kith and kin. There are many in the villages who cannot read or write. Babulal reads and writes letters for them. He is their trusted friend. Often he is asked to bring for them some provisions and medicines from

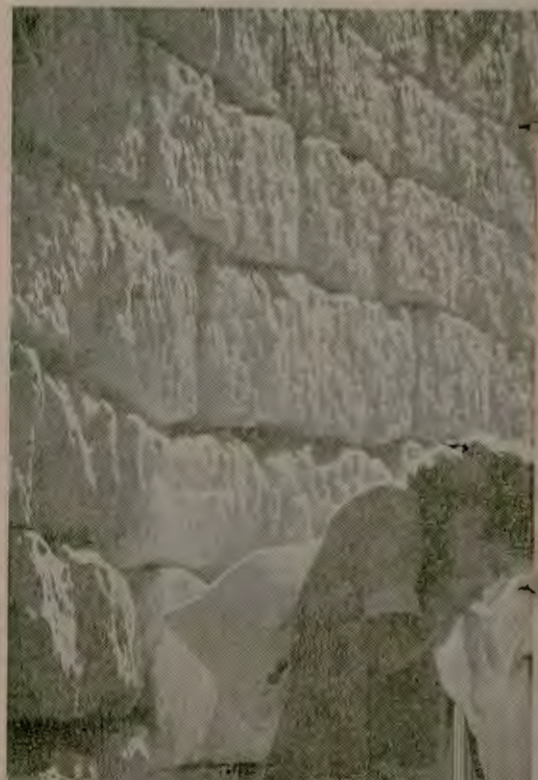
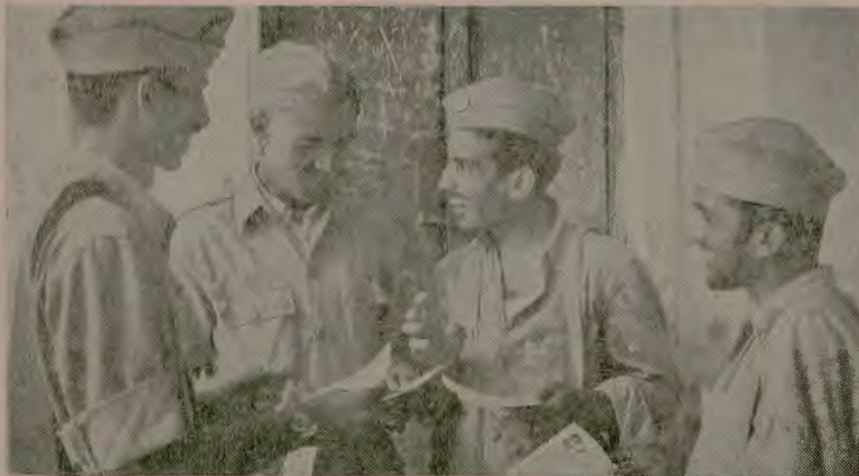


the town in his next round. Sometimes he carries oral messages for them to other villages he covers. In turn, they offer him food and night shelter during his stay. A truck passing by or a camel going along does not hesitate to give him a free lift. And there are postmen who command so much affection that they even ask the truck driver to change his route to suit their itinerary.

Babulal has sometimes sad experience too. He meets people who are indifferent to him and treat him curtly. But he has the docility to put up with such experience without a grudge. He knows, he has no right over the people if they have no affection for him and it is his duty to

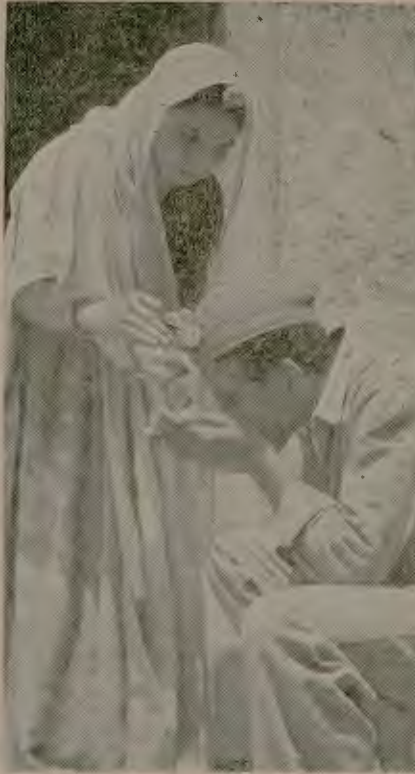
serve them. However, such experiences are more than compensated by the affection and trust he gets from most of the people. Perhaps he is next only to the teacher at the village school to command so much respect from the villagers. That is why Babulal likes his villages more than the town where, he finds, people behave in a comparatively matter-of-fact manner.

It is not the postman alone who is



loved and respected in the villages. The postmaster in the village also shares the tributes. Take for instance the case of Baidji, postmaster of Nachana, a small town situated at the foot of huge sandhills, 45 miles in the interior from Pokaran. Baidji is not his real name, and nobody bothers about the real name. He is an Ayurvedic physician by profession and hence 'Baidji'. It is difficult to say whether his popularity over the area is due more to his Ayurveda or to the postal service he renders. The place is almost cut off for communications from the rest of the world for a major part of the year. There is no road and every time a new path has to be made in the sands all the way along. When we visited Nachana, Baidji had gone to a village eight miles away to attend to a case of severe burns. When he returned in the evening on his camel after removing the patient to a town hospital, people gathered round him to enquire about the health of the patient, and even while talking to us his face looked anxious for the patient.

It is these bonds of human relationship created by the postal personnel which have made communication easier in this desert area where the inclemencies of weather and vast distances between villages over the thirsty lands have handicapped transport facilities. The mutual trust and intimacy between



All in the day

A housewife helps Babulal with water to drink during his round in Jaisalmer; he does a good turn by writing a letter for an old villager (top left). Little girl's (below) and colleagues (left) share a joke with him.

the postal personnel and the people have developed to such an extent that sometimes mails are carried without the postman. Babulal meets a person from a distant village at Jaisalmer and he entrusts the mail to him for carrying it to the village. That saves Babulal the rigours of a tortuous journey and helps the villagers to get their letters much before Babulal would have delivered in his routine round. And there is not a single complaint of letter not being delivered to the proper addressee.

In fact, Babulal is not very cheerful by nature, perhaps due to his unhappy childhood. But the faith and love of the people sustain him in his strenuous life as a postman. At home, he has his mother, wife and two children—a daughter, Amba, and a son, Vishnukumar. His earnings are inadequate to maintain a happy living. But Babulal bears his lot with humility and sense of duty. At Jaisalmer, housewives treat him as a helpful neighbour and children flock to him as a likable friend. At the office under the Pipal tree, he is a silent worker busy stamping and sorting out the mail and attending to the people at the window. While he is out on his bicycle to deliver the big bundle of letters in his bag, the people continue to collect under the Pipal tree to buy a postcard, send a money order, write a letter, or gossip idly and stare blankly at the fluttering leaves.



*From Feathers of the Pigeon to Wings of the Plane
Rides the Magic Letter to
Reach Remote Villages*

A MEMORABLE scene in Satyajit Ray's famous trilogy is when the little Apu trots home to his mother with a letter in hand shouting "chitti, chitti, chitti..."

To children everywhere and even to adults in villages and towns the letter is still a little oblong of mystery. And for the three-fourths of India which still cannot read, the process of the unknown becoming known needs an intermediary. More letters are now being written than ever before and they are being moved and delivered very much faster. Although even today fewer than ten letters are written per head of the population per year, our postal system has many creditable points. One of them is that the metropolitan cities of India are only a few hours away from each other in the matter of correspondence by letter. With the "all-up scheme" in India, letters go by air without any extra charge between Calcutta and Bombay and Delhi and Madras and other major cities.

Letters may today fly with the speed of the fastest jets. Even so the magic has not gone out of them. In the words of the English poet, W. H. Auden:

Letters of thanks, letters from
banks,
Letters of joy from the girl and
boy,
Receipted bills and invitations,
To inspect new stock or visit
relations,
And applications for situations,
And timid lovers' declarations,
And gossip, gossip from all the
nations...
The chatty, the catty, the boring,
adoring,
The cold and official and the
heart's outpouring,
Clever, stupid, short and long,
The typed and the printed and the
spelt all wrong.*

And if in Britain the mis-spelling is in only one language, in India

letters are mis-spelt in many languages. And they are written on all sorts of surfaces that can be called paper only by courtesy. But the postman patiently reaches them to all the addresses, going his rounds in all kinds of weather—monsoon and the scalding heat of the northern summer—and in all kinds of terrain, steep hill and tortuous valley.

And the number of post offices is growing. In the statistics-loving language of the Plan documents, the number of post offices went up from 55,000 to 77,000 in the five years between 1956 and 1961. Few of us

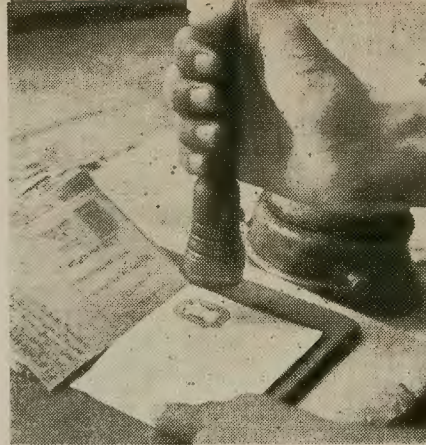
can really grasp what it means to open 22,000 more post offices. Not being bankers we are not used to thinking in terms of thousands. Twenty-two thousand in five years means that more than a dozen post offices are newly opened every day in the country!

This is no small achievement. What are the features of this expansion? What are the problems?

To have a clear all-India picture, *Yojana* went to Mr M. Dayal, Member of the Posts and Telegraphs Board, who looks after the postal services. What we learnt from him follows.

Q. Who determines where the new post office should be started, and what are the considerations you take into account?

A. The decisions are taken by the Superintendents of Postal Divisions who really are the backbone of the postal services. They constantly assess the needs of each segment within their charge and also the flow of traffic. These Superintendents are guided by the standards and priorities we have laid down. For example post offices have to be opened in places where new projects are started provided they fulfil the requisite standards. Again, preference is given to development blocks.



Yojana Interviews

MR M. DAYAL

Member, Posts and
Telegraphs Board

Problems & Programmes of Our

Border areas are also being paid special attention. As for rural areas our aim is to see that no village in the country is more than three miles away from a post office. In selection of village, we go in for places which have primary schools.

Q. Do you get many requests for opening post offices?

A. Oh, many. Thanks to planned development and increase in literacy, we always have groups of villagers sending petitions or deputations pressing for the opening of post offices. As I said, the decision is mainly left to the Superintendents.

Q. What are the special problems and special achievements of the Indian postal system in the last few years?

A. The special achievement is that in the last twelve years the number of post offices has more than doubled and the number of postal articles carried has also nearly doubled—from about 2,200 million to more than 4,000 million. That is the first achievement. The second is that the postal system is also the biggest single banker of the country.

As regards our problems, I would say that lack of buildings is the foremost. This shortage is particularly acute in the cities. We are

*Quoted in the 'Post Office: How It Works' (The British Information Service).

trying to overcome it by putting up more of our own buildings. In this way we can also allow for future needs. The second big problem is inadequacy of mechanical equipment. Transport in rural areas is particularly difficult. Even in the urban areas it is a problem because of the tremendous rate at which postal traffic is increasing.

Q. What are you doing about it?

A. Several things, of which I'll mention only a few. We are introducing, in the major cities, the system of departmental mail motor services instead of entering into contracts with private parties. The mail motor fleet is expanding at a fast rate. We are also re-designing our vans to increase their carrying capacity. In the bigger Post Offices we are thinking in terms of mechanisation by employing conveyor belts and other mechanical aids.

centres at certain focal points. We have standing rules for re-writing the address in English for mail going out of a particular State or linguistic region. I remember how ticklish the language problem was when Hyderabad was integrated. Almost every post office had to be familiar with five languages and scripts—English, Urdu, Telugu, Marathi and Kannada. And they managed it on the whole.

Q. Do you have a shortage of staff?

A. In a huge organisation such as ours, shortages do occur in different post offices from time to time due to various factors but the problem is not really serious.

Q. What arrangements do you have for training staff?

A. We have got two Regional Training Centres at Saharanpur and Baroda which train the new recruits

Q. What, even zamindars?

A. Yes. It may come as a surprise to you; many of them consider it a position of prestige.

Q. In the old days post offices sold quinine or things like that. Do they continue to do that? What are the other services taken up?

A. Yes, we continue to sell quinine; but with the progress of malaria eradication, this activity is dwindling. The main thing now, besides the regular postal work, is the promotion of savings. We have the postal savings bank. We sell National Savings Certificates and we have Postal Life Insurance Policies.

Q. Has the sale of saving certificates, through post offices, affected the post office savings bank?

A. No.

Q. To go back a little: you said the post office is the biggest single banker. Can you give us the figures?

A. Last year we had 92 lakh savings bank accounts—that is, 92 lakh people keeping their savings with us. The total balance in postal savings at the end of 1960-61 was Rs 431 crore. Besides, we had more than a lakh and a half Postal Life Insurance Policies, with Rs 35 crore invested in them.

Q. We were talking about teachers and postmasters. One of the complaints of teachers has been that they are called in whenever the district authorities plan any drive, week or show. Are your postal staff also expected to do extra-curricular work?

A. Don't forget that we are an essential service. As such our staff cannot be drafted to do any other work unless we give our consent.

Q. Now we come to a question that people continuously talk about and complain about, namely, delay in delivery of mails. Do we have more delays than in other countries?

A. Delays we have, but I maintain they are infinitesimal compared to the traffic handled. Last year we handled 400 crore articles and we had 290,000 complaints—which works out to seven out of every one lakh or .007 per cent of the total articles handled. We have, as a regular part of the postal administration, officers who investigate these

(Continued on page 12)

Expanding Postal Services

Distant Cities Brought Closer To a Few Hours' Hop

Q. Do you get enough foreign exchange for introducing these changes?

A. We are banking upon Indian industry to help us in this matter. As a matter of fact in all foreign countries it has only been possible to mechanise the postal services as also collaboration between private industry and the postal authorities.

Q. Do you feel confident that you have built up your capacity to meet the rising needs?

A. We are keeping pace with the growing demand.

Q. You didn't mention language as one of your problems. Does it mean that you have no problem of language?

A. To be sure we have, but that is as old as the postal system in our country and we can claim to have considerable experience of handling this problem. Our postal circles roughly correspond with the State boundaries. We have transcription

of some circles. In addition, we have local training centres in other circles which are not at present served by the Regional Training Centres. Our intention is to establish at least two more Regional Training Centres so that all the new recruits are given a sound basic training not only in postal work but also in public relations. Side by side, with the stress on efficiency, our welfare activities have also been given a lot of attention.

Q. Are all postmasters whole-time employees?

A. Oh, no. We have what are called extra-departmental post offices. We cannot afford to have full-time postal employees in all post offices particularly those located in the rural areas.

Q. Who are these part-time postmasters? Are they mostly school-teachers?

A. School-teachers, of course, but they consist of many kinds of people, from zamindars down to panwallas.

FOURTEEN MILLION NEW JOBS

The Third Five Year Plan
Bird-Heilgers' part in it...

Employment. A word that translates into a meaningful future for millions of people without jobs. India's Five Year Plans are aimed at the concept of full employment. The intensified drives of the Third Plan are estimated to create 14,000,000 new job opportunities—more jobs for more people than ever before in the economy's history! To achieve the employment target calls for a single-minded national effort. It must be co-ordinated, dedicated, complete...

75,000 jobs—and more in the offing

Bird-Heilgers is convinced that the quickening tempo of industrial activity must be accelerated if unemployment is to be checked and full employment brought about. Wedded to this concept, the group provides well-paid employment for approximately 75,000 people. They are concerned with iron ore and insurance policies, bridges and writing paper, gunny sacks and laboratory tests—a complex of goods and services which involves the group heavily in the industrial resurgence of India.

Towards a self-generating economy...

A phrase on everyone's lips. A phrase

that finds concrete expression in the urgent activity of an economy on the move. Bird-Heilgers reflects the nation's striving. The group delivers millions of tons of basic materials to the new blast furnaces. It produces jute goods, paper and board, air compressors and springs, and engineering and water treatment equipment. A project for the manufacture of coal washeries was the first in India. Planned diversification finds the group engaged in shipping, insurance, exporting and importing. Its agency department handles everything from heavy capital equipment to light consumer goods.

...and an exciting, promising future

The Five Year Plans are a challenge: existing industries must expand, new industries open up, per capita income increase. India needs more goods and services than ever before. Bird-Heilgers is alive to the problems of a growing economy. The group deploys the full potential of a century's resources, technical knowledge and executive skill to increase and broaden its activities...provide employment for many more thousands...join the national drive to economic independence.



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Administration of OUR PUBLIC ENTERPRISES

IT is a good sign that the administration of our public enterprises has lately begun to attract more and more of public notice. Hardly a day passes without some comment or criticism on the subject being offered in the Press, in Parliament, by the spokesmen of Industry or labour or simply by interested citizens. While all the comment may not be as well-informed nor all the criticism as disinterested or constructive as one might wish, it is nevertheless to be welcomed as a stimulant to public interest and debate in a terribly important, though complicated, subject viz. the working of our public enterprises. Inasmuch as this interest is often nothing but an assertive expression of the growing sense of public ownership of these enterprises, it is a development in the right direction.

It is the deliberate and considered policy of the Government to foster the growth of the public sector in accordance with the industrial policy and the socio-economic objectives enshrined in the Constitution. While investment in public sector industries amounted to only Rs 150 crore out of a total of Rs 3,360 crore in the First Plan, the allocation grew to Rs 600 crore and actual outlay to Rs 800 crore out of a total of Rs 5,750 crore in the Second Plan; the Third Plan provides for a much bigger investment in public sector industries, viz. Rs 1,700 crore out of a total of Rs 10,400 crore. Thus every succeeding Plan sees the diversion of a progressively larger proportion of total national resources to the public sector, which means, that as time passes, the success or failure of the Five Year Plans becomes more and more dependent on the efficiency of the public sector.

The public sector comprises various kinds of enterprises, which are not

K. C. PANT M. P.

amenable to uniform treatment in the matter of organisation or administration. These range from State Banks, Departmental Undertakings, Control and Commodity Boards, Commissions, Port Trusts and Local Authorities to Statutory Corporations and limited companies. Of these two broad groups, enterprises falling within the first are already governed in their conduct, internal management and relations with the Government and Parliament by established conventions, which may need changes here and there but which are outside the scope of this article. We shall focus our attention on the other group, particularly on limited companies, which are governed neither by statutory regulations nor, as yet, by well-tried and proven procedures. In fact, these procedures are under constant review and the desired pattern, which combines efficiency and fixation of responsibility on those in charge of the enterprises with optimum budgetary control by the Government on the one hand and Parliamentary control over policy on the other, has yet to be evolved.

Parliamentary Control

Since public funds go to finance these enterprises, there can be no question about their accountability to Parliament. Parliament should clearly have sufficient control over such bodies, but this control should be over their policy and broad working rather than the details of administration. While Parliament must concern itself with the proper utilisation of public funds and with accurate periodic assessments of performance and result against planned estimates and targets in respect of these enterprises, such vigilance and control needs to be tempered by restraint.

It would not serve the ends Parliament has in view if its control were to degenerate into interference in the day-to-day working of these enterprises, thereby seriously limiting the highly desirable local initiative, which alone can deliver the goods.

It is now conceded that industrial or business undertakings cannot be run like Government departments. The system of accounting and procedural delays on account of red tape, which characterise departmental organisation, not to speak of service regulations which prevent both promotion on merit and prompt disciplinary action—these features are hardly to be emulated. State enterprises need a form of management in which those on whom ultimate and effective responsibility is squarely fixed, are not handicapped by lack of authority and freedom in adequate measure. Greater autonomy and flexibility of procedures are conditions precedent to the success of the company form of management for State enterprises; and unless these requirements are met, it would be neither easy nor fair to reward merit and punish failure.

It was, perhaps, natural that the first form of organisation evolved to manage State enterprises put its faith in centralised authority with senior officers of the concerned Ministries acting as chairmen and members of the boards of directors. But this practice did not find favour with several informed critics. For instance, the sub-committee of the Congress Party in Parliament, presided over by Mr Krishna Menon, which examined the structure of public undertakings, expressed the view that senior officials in the Ministry should "not be intimately concerned with the Company". In fact, the sub-committee favoured a direct relationship between the Minister and the

(Continued on page 26)

Yojana seeks to carry the message of the Plan to all sections of the people and to promote a more earnest discussion of problems of social and economic development.

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NEXT FORTNIGHT

PACKAGE PROGRAMME

IN RAIPUR

Special Yojana
Report

COPS AND HOPES

THE role of policemen in national intergration. This was the subject of a committee's study, a conference's discussion and a Parliament question. The phrase has evoked wry smiles and ironic asides.

Ours is no longer a "law and order" State. We have gradually begun thinking of Government as the pre-eminent welfare agency. But this should not hide from our eyes the first function of Government, namely to hold the country together. As defence from outside enemies is the work of the armed forces, defence from inside enemies is the work of the police.

So the police *have* a role to play in national integration. How best they can do it in the present context needs careful thought. One of the suggestions considered by the Home Ministry's Committee is that all the States should have a common police manual; another is that a minimum proportion of officers and men in the police force of each State should come from outside.

The importance of inter-State interchangeability of officials was stressed by the States Reorganisation Committee. The present line-up of States, which largely correspond to linguistic entities, is bound to stay. Our duty now is to strengthen the structure.

If law is a positive force for unity, policemen here or elsewhere, are essentially a negative force. They are there to enforce society's "don'ts". Their contribution to national integration is like the work of pesticides. To remove pests is important to agriculture; even more important are ploughing and sowing, manuring and growing. Our policemen have few admirers. The belief is widespread that too many of them wink at wrongdoing. This feeling has to go. To make it go is in the policemen's own hands.

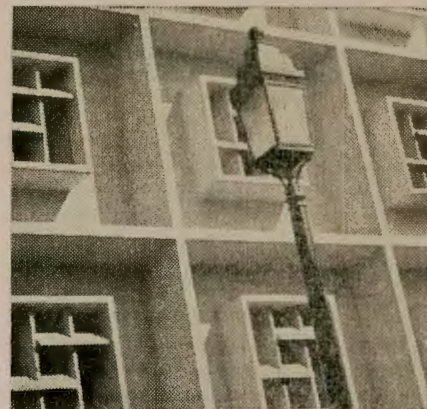
In the old days the people were expected to fear law. What we now need is respect and even love for law. Policemen can promote this healthy change by re-educating themselves on the lines prescribed by Dr Zakir Husain (*Yojana*, August 19). The best way policemen can help national integration is by becoming less conspicuous and less talked about.

SIX MILLION MORE

IF all the people of India were to stand in a line today and a young man were asked to count them all at the rate of 120 people per minute, he will need seven years to come to the end of the line—except that by then the line would have grown much longer. The provisional total of the 1961 Census placed our population at 436 million. But in every Census there is bound to be some under-count. Therefore, sample checks were held, which showed that for each 1,000 people counted last year some seven had been left out. That gives us three more million. Also, last year's provisional figure did not include the population of Goa, Diu, Daman, Dadra, Nagar Haveli and the North-East Frontier Agency—another three million. So we really are 442 million—a long way have we gone since Bankim sang of 30 crore voices.

It is a matter for satisfaction that the under-count—seven in 1,000—has been less than in 1951. The Registrar-General tells us that this is the lowest in the world. The reason is that our rural population, which is so large, is divided into well-defined revenue boundaries, and the village officials know almost every person in their area. It is a rare fish that slips through the net. In the urban areas, however, the under-count is larger because the people there are more mobile. Also, some so-called educated men are not mindful of their obligations in this regard. We know of a university professor who was rude to an enumerator and repeatedly refused to give him the particulars asked for. He capitulated only when he was told he was liable to be prosecuted.

GROWING COTTON IN IRRIGATED AREAS OF RAJASTHAN



A meeting of agricultural experts and representatives of the Ministries concerned was convened jointly by the Ministry of Food and Agriculture and the Planning Commission on July 28 and 29 to consider measures for the intensification of production of cotton and oilseeds. Action is proposed to be taken on the following conclusions reached at the meeting.

The ambitious target of increasing the output of cotton from 5.1 million bales to 7 million bales and that of oilseeds from 7.1 million tons to 9.8 million tons can be fulfilled only if a very high priority is given to the far-reaching measures for intensifying cotton and oilseeds production and an all-out effort is made at all levels.

There was complete unanimity about the general approach to the problem, namely, tackling all interconnected aspects through concerted action by means of an integrated programme, such as the "package programme".

PLANT PROTECTION MEASURES

The most important step to be taken to improve the yield from the standing crop is to step up plant protection measures to the maximum possible extent with the utmost speed.

In addition to the emergency expansion of plant protection measures on as wide a scale as possible, immediate steps should be taken to prepare a comprehensive long-term plant protection programme so as to cover the entire area under cotton with prophylactic spraying or dusting as a service to be provided regularly on a contributory basis. The cost of pesticides should be subsidised, the manufacture of both equipment, particularly air-cooled engines, and plant protection chemicals should be augmented and accelerated and the necessary training of both staff as well as farmers should be arranged.

As the prophylactic spraying and dusting are to be carried out at the appropriate moment within a very short period over a large area, the only effective way, in the long-run, to cope with the situation is to build up a large fleet of aeroplanes for aerial spraying and dusting and power sprayers for ground spraying. A detailed project giving technical, financial and administrative implications of the long-term plant protection programme should be worked out by the Ministry of Food and Agriculture in consultation with the Ministry of Commerce and Industry and others concerned.

As the Ministry of Food and Agriculture possesses only four planes and the time for spraying cotton is likely to clash with that

for anti-locust measures, it is necessary to strengthen the fleet of planes with additional planes and helicopters to meet the demand.

Necessary arrangement for utilising the planes owned by the flying clubs and private firms may be made immediately, the operational cost being provided by the Ministry of Food and Agriculture.

As the scope of aerial spraying will remain limited for a long time, the States have to rely, for the most part, on surface spraying on a mass scale. The State Governments should, therefore, buy additional power dusters and sprayers in sufficient numbers and supply them to the co-operatives and Panchayats at subsidised rates to cover the maximum areas during the current year.

The total availability of plant protection chemicals in the country *vis-a-vis* the anticipated requirements should be examined by the Ministries of Food and Agriculture and Commerce and Industry and the suitable arrangement made for building up adequate manufacturing capacity to meet the full requirements of all crops.

Suitable steps should be taken for encouraging local manufacture of power sprayers, dusters and other plant protection equipment in the country to meet the expanding demand.

To meet the present emergency on account of paucity of spare parts for plant protection equipment, the possibility of importing essential parts, particularly from the soft currency areas, should be examined by the Ministries of Food and Agriculture and Commerce and Industry.

COTTON IN IRRIGATED AREAS

The development of cotton in the newly irrigated areas, particularly Rajasthan, which enjoys excellent climatic conditions is of paramount importance. All necessary facilities and incentives should be provided in these areas and, if necessary, legislative measures should be taken for zoning or earmarking cotton belts. No sugar factories should be allowed in the cotton zones, while new licences for textile mills should be primarily reserved for such areas. The same approach should be adopted in other areas which are receiving irrigation from major projects, such as, Tungabhadra, Lower Bhawani, Nagarjunasagar, Chambal, etc.

A Working Group should be set up by the Ministry of Food and Agriculture to prepare a detailed scheme covering various aspects of the programme in Rajasthan and other similar areas.

As early supply of water from State irrigation works at the time of cotton sowing

(April-May) increases the area under cotton, necessary arrangement should be made for regular and timely supply of water for this purpose in all cotton growing areas served by irrigation projects, old or new. The rosters of running canals should be devised in such a way as to facilitate growing cotton rather than other crops.

A close co-ordination between agricultural and engineering aspects of irrigation projects is necessary in the interest of optimum utilisation of water and land resources. To facilitate the necessary co-ordination, agricultural specialists should serve on the Central Water and Power Commission and State Control Boards of River Valley Projects and work hand in hand with the irrigation engineers at all levels.

A rebate in irrigation rates to the extent of 50 per cent should be provided not only in the new areas being brought under cotton but also in the old cotton areas newly coming under irrigation.

USE OF FERTILISERS

An all-out effort should be made to increase the consumption of both nitrogenous as well as phosphatic fertilisers to the maximum possible extent and separate targets for different villages, blocks and districts and States worked out.

The system of advancing fertiliser loans only in kind would check the misuse of fertiliser loans for other purposes and, in consequence, increase fertiliser consumption.

It would be an advantage to arrange for buffer stock of fertilisers in the States before the commencement of the season.

Calcium ammonium nitrate has gained considerable popularity in the Punjab and Uttar Pradesh recently. Field demonstrations should be intensified in Madhya Pradesh and other States in the use of this as well as other new fertilisers such as urea.

Intensive efforts should be made to develop and utilise local manurial resources, particularly, compost and to popularise the use of phosphatic fertilisers.

IMPROVED VARIETIES OF COTTON

Necessary steps for testing, certification and quality control of cotton seeds be taken immediately and the system of sealed bags with quality marks should be introduced in all cotton growing areas. No uncertified seed should be distributed through the Government or Co-operative seed stores or registered dealers in seeds.

Side by side, the following measures should be taken: (a) adequate arrangement

should be made for easy availability of improved seeds; (b) the necessary incentives in the form of price differential for improved varieties and necessary arrangement for marketing should be made simultaneously; and (c) agricultural demonstrations and other methods of education to convince the farmers of the advantages of improved varieties should be intensified.

The distribution of improved cotton seeds should be excluded from the profit and loss account of the seed depots and carried on as a development measure.

PACKAGE PROGRAMME

The area to be covered by the Package Programme during the current year should be increased from 2.25 lakh acres to 4.35 lakh acres.

The staff provided under the package programme should be treated as a part and parcel of the Block and District set-up and should be fully integrated with the Block and District staff.

The State Governments should prepare their schemes for intensive development of cotton and oilseeds in the package areas for the next year and furnish them to the Union Government along with their Annual Plan proposals for 1963-64. In addition, a three-year programme to cover the maxi-

mum area under intensive development measures should be drawn up by the States concerned.

PRODUCTION OF OILSEEDS

Besides similar measures in the sphere of plant protection, use of fertilisers and manures, popularisation of improved varieties, etc. the following additional suggestions were made in respect of oilseeds, particularly, castor and groundnut:

Castor: The Indian Central Oilseeds Committee should arrange for the purchase of castor in new areas through the appointment of agents or directly.

There is a large scope for the cultivation of castor in the foot-hills and waste lands in Rajasthan, Gujarat, Punjab, Uttar Pradesh, Himachal Pradesh and Madhya Pradesh. The State Governments should prepare detailed schemes for the extension of cultivation of this crop, and, in collaboration with the Indian Central Oilseeds Committee, arrange for (i) free supply of seed, (ii) provision of marketing facilities, and (iii) extensive plant protection measures. Likewise castor cultivation should be encouraged on contour bunds under the soil conservation programme and railway lands should be utilised by the farmers for this purpose.

Measures for intensive castor cultivation should be taken in districts of Mehbubnagar and Nalgonda in Andhra Pradesh and Mehsana and Jamnagar in Gujarat.

Groundnut: The number of units of package programme should be increased from 8 to 24 immediately so as to cover 480,000 acres under groundnut. After a year, the progress of work should be reviewed and the programme further intensified so as to increase the number of package programme units to 50. The coverage in each unit should be accelerated so as to cover the entire area of groundnut under irrigation and assured rainfall with the programme of intensive development in three years.

As regards unirrigated areas under groundnut, extensive manuring with compost and phosphatic fertilisers and complete coverage with plant protection measures on the same lines as cotton should be undertaken by the State Governments.

The Indian Central Oilseeds Committee would work out a three-year programme to cover as much area as possible under the measures for intensifying production under the Package Programme or the general programme.

(See also page 24)

Man rather than machine is responsible for much of the people's sufferings in the power-starved capital.

—A report in *The Hindustan Times*

Both shocking and amusing is the report that India purchased a donkey at an auction bid with Pakistan for Rs. 60,000 only! The intellect of a donkey is proverbial. Can we not justifiably credit Pakistan with fooling India by making her buy this beast of burden for this huge sum?

—A letter to the Editor, *The Statesman*

There is a sudden awakening in New Delhi that the standards of education in India have deteriorated but the Education Minister offered the consolation that "it is not confined to India".

—P.J. writing in "*Swarajya*"

The way inquiry committees are created and function here should delight Professor Parkinson.

—Mr. Krishan Bhatia writing in *The Statesman*

Mr. V. T. Krishnamachari counselled those in charge of the country's food production today that it is futile to expect bumper harvest by passing orders and issuing circulars from New Delhi.

—From a report in the *Financial Express*

There is much we must learn from this remarkable man, Khrushchev.

—C.R. writing in "*Swarajya*"

QUOTATION BOX

Salaries may not be as high as in, say, America, but the purchasing power of the rupee in India is not far behind that of the dollar in America. Those who are tempted to stay abroad will do well to remember that the longer they stay away the more difficult it will be for them to return to India and find a place attractive enough for them.

—Mr. P. Kodanda Rao writing in "*Seminar*"

Man is proving once again that he can expand the boundaries of his political warfare to any new regions science opens for human exploration and use.

—An editorial in *The New York Times*

A single swarm of medium size locust alone can number a thousand million. It can eat 3,000 tons of food in a day and can range over 3,000 miles. The 60 territories liable to attack spend over £ 5 million a year on fighting the locusts.

—A report in *The Financial Express*

A long time ago, my mother used to say to me, whenever any situation came up that daunted or upset me, "All you have to do is use your common sense". Now I would like to change that familiar motto slightly to say, "All you

have to do is use your common senses".

—Santha Rama Rau

Drinking has been banned for all women under 50 in Kenya's Nandi tribe, because according to the local African District Council, it "causes immorality among our women."

—A report in *The Hindu, Madras*

With every third motor vehicle in Delhi passing through it daily, Connaught Place has become the busiest traffic spot in the country next to Chowringhee Square of Calcutta and the Fort area of Bombay.

—A report in *The Hindustan Times*

I am a hypocrite. Every day I smilingly say "Good morning, Sir" to a professor whom I should like to throw out of the window. I salute and smile and say "please" to the college clerks when they shut the windows in my face. Though I am sick of lectures and sermons, I have never cut a class! I haven't the courage to do so.

—Mr. Vinod Dhawan writing on the *Youth and Today* series in *The Statesman*

Today, even as used to be the case before Independence, a person catches public imagination more by writing a note of dissent than by signing an agreed document, however well-drafted the document might be.

—Dr. A.K. Das Gupta writing on *Economists and the Government* in "*The Economic Weekly*"

PIONEER CONSUMER CO-OP OF SOUTH

TUCS has 45,000 Members and Sells Goods Worth Rs 2.5 Crore Every Year

S. Ramanathan

IT was a cloudy day in October, 1942. The air was thick with rumours of imminent danger to Madras. Japanese bombers were expected any night.

The million odd people were getting nervous; another uncertain day came to an end, another night cast its darkness over the quiet blacked-out city. The day dawned, but it was different from other dawns. Two small bombs had been dropped near the Fort area. The Government's cryptic hand-out assured no damage had been done and appealed to the people not to be scared.

But the people waited for no advice, no assurance. Mass evacuation started; the Government too ordered the shifting of many offices to interior towns. That set the pace for private traders and business men to lock up their shops and flee. The city was soon deserted but for a few thousands of men.

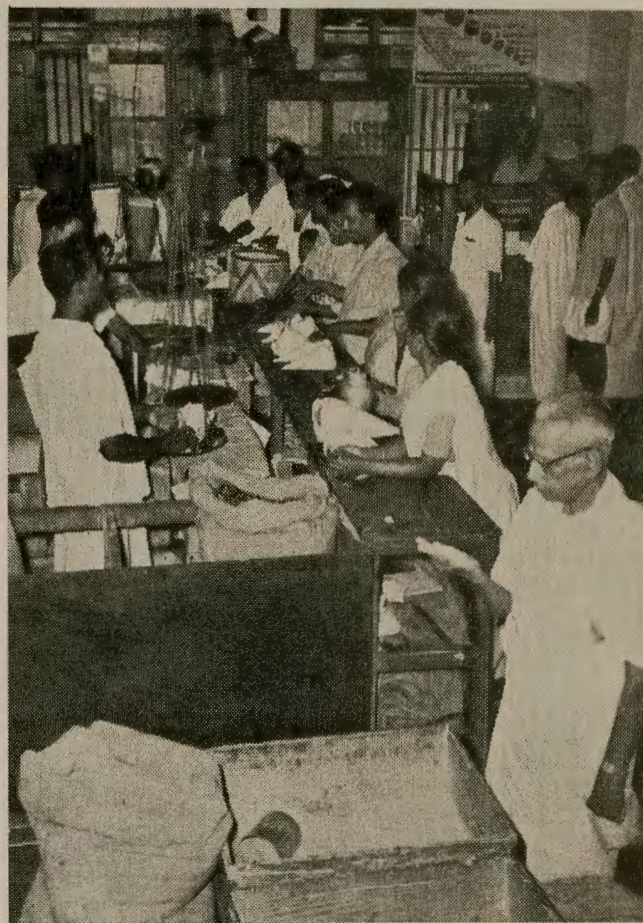
The Corporation of Madras had no place to go; it stayed out along with its thousands of employees. So did the Triplicane Urban Co-operative Society (TUCS), like a valiant soldier. When those that stayed found they had no place to buy their daily requirements from, the Government turned to the TUCS to run the Emergency Food Supply Scheme to feed the people who manned the essential services.

The TUCS rose to the occasion, worked the scheme and fed the people when private retailers had fled at the first sign of alarm.

The TUCS lived up to the motto of co-operation—"Each for all and all for each". For three years until 1945, during the critical days of shortage and scarcity, the TUCS was in charge of the scheme and won not only the appreciation of the Government, but what is more important to a pioneer among consumer co-operatives in the State, the gratitude of the people. The Government, as a token of its appreciation, gave a grant of Rs 187,000 representing half the profit earned through the scheme.

That was a golden chapter in the history of the TUCS.

Those who know Madras think of TUCS as a banyan tree which has sent its roots down all over the city. Like all mighty efforts, it started in a small way. Way back in 1904 fourteen enlightened men, all of whom had immense faith in co-operative ventures, started the first TUCS shop. At its head was V. S. Srinivasa Sastri who later became famous as 'the Rt. Hon. Sastri'. The first shop was housed in a thatched cow-shed on Big Street, Triplicane, within a stone's throw from where the Rs 3-lakh head office of the TUCS today stands as a monument to the profound faith of the pioneer



co-operators. Its membership then was 14, and the share capital Rs 310.

That modest beginning synchronised with the enactment of the Co-operative Societies Act of 1904. That Act, however, did not provide for consumers' co-operative societies and the TUCS was registered as an urban society with distribution of goods added as an additional line of activity.

Today, 58 years after its founding, the TUCS is a landmark in the city and the State. Its area of operations extends to a radius of 20 miles from the Fort St. George. From 14 members and a share capital of Rs 310 in 1904 the Society has now nearly 45,000 members and a paid-up share capital of Rs 331,258, the authorised share capital being Rs 500,000 made up of 100,000 shares of Rs 5 each. Millions are served by the Society through its 62 branches and two depots with annual sales of over Rs 25,000,000.

Most of the founders are gone, but others, endowed with similar vision and wisdom, have contributed to its success. The TUCS has a broadbased, democratic constitution. A special feature of the Society is the payment of a fixed guaranteed cumulative interest of 6 per cent on the paid up share capital as a first charge on the profits. The Society conducts its business in strict conformity with the Rochdale principles, namely sales to members at market rates for cash only and

distribution of profits according to consumption and payment of fixed interest on the capital invested. The credit department was discontinued in 1933. The Wartime work of TUCS has been referred to. Even after the end of the War, and till 1952, the Society was made use of by Government for equitable distribution of commodities in short supply. In 1948-49 it was entrusted with the distribution at controlled rates of mill cloth, when it was in short supply.

The TUCS has more than 500 employees with a monthly wage bill of Rs 50,000. The management vests in a board of directors elected by members of the branches, each branch electing one director. Members who buy at least Rs 100 worth of provision per half year are eligible to vote at such elections. Each branch has a Panchayat elected by the members, the same way as directors, to supervise the detailed working of the branch. The general body consists of directors and Panchayatdars of the branches and representatives elected by other consumers' associations like hostels, co-operative societies etc., who buy goods to the extent of Rs 2,000 per half year.

The executive committee consisting of (in round numbers) one-third of the total number of directors is in charge of the day-to-day administration. This committee constitutes three standing committees, one each for administration (seven directors), production and purchase (seven directors) and accounts (six directors). A sub-committee of five directors handles disciplinary cases.

The reserves of the Society as on December 31, 1961, were as follows:

Reserve fund—Rs 567,924; common good fund—Rs 157,192; dividend equalisation fund—Rs 20,308; building fund—Rs 762,406; business reserve—Rs 198,849; deposits—Rs 856,630; share capital—Rs 331,258; buildings—Rs 954,852; and investments—Rs 548,724.

delays. Most of the complaints relate to non-receipt of acknowledgements and money order coupons. Several measures have been adopted to eliminate the cause of complaints. But I must say that our literacy levels have a direct bearing on this question. As long as our people write incomplete addresses and write illegibly on very inferior paper, there are bound to be delays. Take, for example, people who migrate from villages to urban areas. Their number is increasing with the coming up of so many of our development projects. When these people write back home they do not take care to give the correct address. Every day some 300 letters are posted in the country without any address whatever! Even highly literate people need to be educated in this matter. As you know, we have zonal numbers in the big cities. How many people, do you think, take care to note this number? To the bigger business houses who are holders of franking

TUCS has opened agencies at Kodavalur and Kuttalam for the purchase of Nellore raw rice and Tanjore boiled rice for supply to the people of Madras. It is also running fair price shops for the sale of (Burma) rice supplied in all its city branches and in five out of the ten branches in the suburban areas. Although the TUCS is primarily a distributive co-operative society, it has entered the field of production. The production of *gingelly* oil in its own mills since 1937 is a line attended with great success. Twelve Pinto *chekkus* produce 3,000 tons of quality *gingelly* oil. The *gingelly* seeds, like pulses, cereals and many other articles, are purchased in bulk from different places of production to keep down prices.

One of the prime objectives of the TUCS (as of all consumer co-operatives) is to maintain the level of prices of necessities of life as low as possible. This it seeks to fulfil by procuring goods from places of production and selling them with a low margin of profit. Thus TUCS prices in respect of many commodities are slightly lower than those in the open market.

Thousands of families in the city, however, still go to the small private provision stores where they get things on credit, and some still cling to the notion that the higher the price, the better the stuff they get! However, when the TUCS, which has succeeded in expanding its size, numbers and turnover, also ensures quality of the stuff sold, it would not only further enhance its prestige but attract more members and thus act as a deterrent to high prices in the open market. This aspect was recently stressed by Mr V.T. Krishnamachari when he pleaded for the strengthening of the consumer co-operative movement in the country to help stabilise prices. It could be claimed for the TUCS, in all fairness, that it has to some extent helped in stabilising prices and to a greater extent ensured equitable distribution of commodities in short supply.

OUR POSTAL SERVICES

(Continued from page 5)

machines, we supply street directories free but they do not always make use of them.

Q. What is the present position of the "all-up" air mail scheme? There is some reference to it in the daily newspapers and some fear expressed that it is being watered down...

A. It is a baseless fear. We are only making some changes in the scheme and the Indian Airlines Corporation will be co-operating with us fully. The night air services now converge at Nagpur, from where the mail is redistributed to the various centres. We are now changing this pattern. Direct flights between the major cities will, in fact, shorten the transit time, speed

up the mails and nationalise the sorting pattern.

Q. Is the postal system run as a public utility or as a business organisation?

A. We are conscious every minute of our responsibility to the people and the nation. But we have to work as a modern commercial house. But where the people's good is involved, we place welfare above profit. We were talking at the outset about the opening of post offices. Let me add, to complete the picture, that in rural areas we allow for a loss of Rs 750 per year on a rural post office serving a population of 2,000. In areas declared backward, this margin is further relaxed.

Q. As a postal man, what change would you like to see in our people which will enable you to do your work better?

A. Simply this: "post early; do not wait till the last clearance".

The
CHANGES
I would like
to SEE in



Secretariat and seeing the notes of the officers that, although I am a mediocre, yet a mediocre like me is able to produce something new and original. They may not be new and original in a very high sense, but whatever new things are suggested in the Ministry, well, they generally come from me, and the officers who are far far abler than myself go on with their routine way of thinking and routine way of working".

The Government servant, high or low, is trained to go by precedents. Thinking in advance is not supposed to be a qualification. Departure from the Rules or from interpretation substantiated by precedents is supposed to be a weakness. That is why they are in the same old rut. The Fundamental Rules, their various correction slips and Government notifications giving interpretations, are the biggest preserver of the old ruts. If the Rules are abolished and Government servants are expected to go by the general practice of efficiency, prudence, wisdom and administrative capacity, much of the

GOVERNMENT PROCEDURES

By J. P. CHATURVEDI

THE first change that I want to see in the Government of India is the abolition of the Fundamental Rules. These Rules are the biggest reactionary instrument confining the initiative, common-sense and practical wisdom of the Government officials. Anatole France has said, that the revolutionaries of today are the reactionaries of tomorrow. I am prepared to concede that when the Fundamental Rules were formulated, they had a certain function. The British wanted to have an impersonal rule in India where individuals did not matter. The Fundamental Rules were designed to have a check at every stage so that the activities from a clerk to that of a secretary were self-regulated. The Fundamental Rules were the Bible. They guided the day-to-day working of the Government and the working was that of a police state where human welfare counted the least. It was a Government which permitted the Bengal Famine and still found in its records that nothing significant had happened.

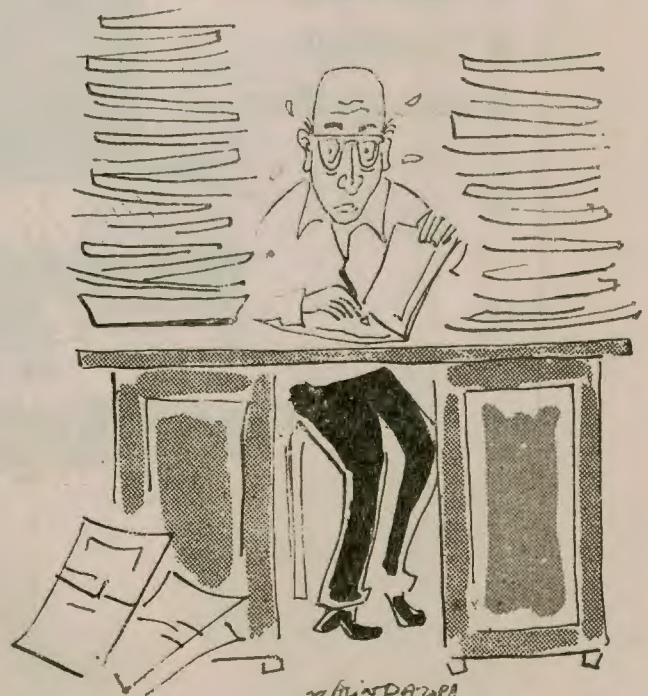
We are now living in a totally different society. We are living in a Welfare State where initiative is necessary at every stage, where the Administration has to feel the pulse of the people and where the legislatures, Parliament, the Press, political parties, Panchayats, and even the random citizens keep a watch over the activities of the Government and expect the Government to be sensitive to public opinion, to public criticism, public misery and public approval. But a Government servant trained to look at the Fundamental Rules as the ultimate master gets into difficulties. He does not find it mentioned in these Rules that if there is any criticism in newspapers, from the public platforms, or in Parliament about his work, he must look and see if there is something wrong. This omission is the cause of all the frustration with our public services even among people who are called upon to administer. The Home Minister, Mr Lal Bahadur Shastri, who is never given to speaking hard or harshly, was constrained to say: "They are no doubt, as I said, able; they can dissect problems to its bone. In their finding a solution of two or three problems, they can consider the pros and cons of every matter in a thorough manner; they can quote things admirably well; but, as I said, the point is whether they can bring about a change in the existing situation. The existing situation continues and although they do try to get out of the ruts, they have not fully succeeded. It seems to me that they are not able to think in advance and they only think when the situation almost gets out of control. I hope I am not being unfair to them or I am claiming much for myself but I feel while working in the

inefficiency, slackness and all the delay that are seen in Government work today may disappear.

That will mean that the persons whose efficiency is today judged by the number of precedents they can remember and the rules they have learnt by rote will disappear. It will not be sufficient, in the new scheme of things, for them to quote a particular rule for taking a decision; it will be incumbent on them to provide a justification. It will also mean that they will have to think out new measures and new solutions without the fear of being put in the dock for not following the Fundamental Rules.

The second change I should like to see in Government is an end of the social status that salary enjoys today. Today the wife of a Deputy Secretary will not talk to the wife of an Under Secretary

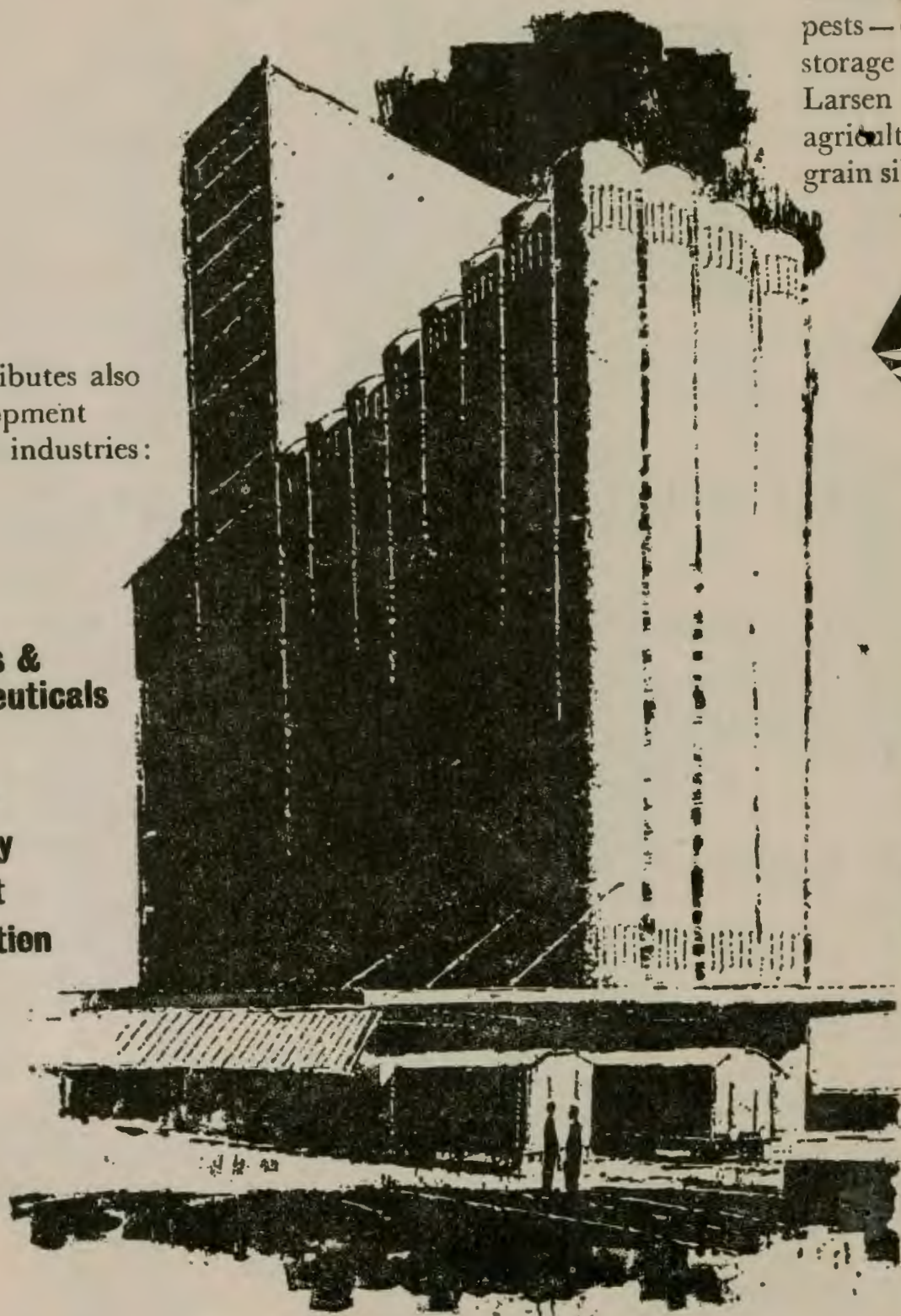
(Continued on page 22)



A silo —
considered
pests —
storage
Larsen &
agricultural
grain silo

L & T contributes also
to the development
of these vital industries:

- dairy
- oil
- steel
- chemicals &
pharmaceuticals
- paper
- minerals
- electricity
- transport
- construction



built to accommodate 100,000 tons of foodgrains! If the set-up looks too luxurious, this: every year in India more than a million tons of foodgrains are destroyed by the use of old methods of storage! Colossal wastage? It is. One reason why scientific storage is so important—almost next in line to raising food production in India. Today L & T supplies a wide range of plant and equipment in the field of food and agriculture: tractors and implements, earth-moving equipment, fertiliser plants, and food processing plants.

it has a lift. it has a railway siding. what is it?

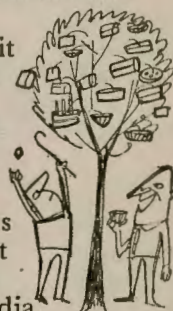
stronger than a pair of bullocks?

Certainly! And faster. Not the caterpillar — but the tractor that bears the famous name. At 10 ploughs, for instance, about an acre an hour! A pair of bullocks takes 6 hours!) Impressive? Then think also of the bigger machines: bulldozers, scrapers, dumpers, tractors... All essential equipment for building irrigation dams and canals, clearing forest lands, harrowing and oil conservation.



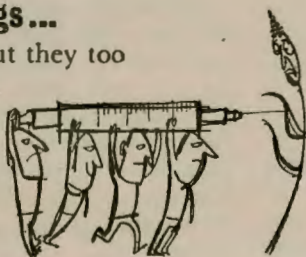
bread does not grow on trees!

Nor do biscuits, for that matter! Bakeries need flour — large quantities of it every day! Now think of the time it takes to produce one ton of flour *by hand*. And think of the modern Buhler mill that grinds 1,000 tons a day — just one of the plants that L & T now sells in India.



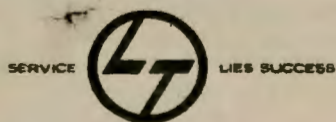
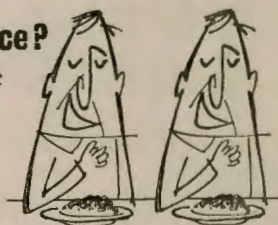
plants do have feelings...

Science has proved. But they too occasionally need a "shot in the arm". Fertilisers, in other words. Essential for healthy growth and increased yield. Every year the demand is growing — and with it the need for fertiliser plants and equipment like the Chemiebau superphosphate plants and other process equipment manufactured by L & T.



which one is eating rice?

Hard to tell the difference — and that exactly is the point. Synthetic rice looks similar; it tastes equally good. Then why choose it in place of rice? Because it is three times more nutritious. It is comparatively cheap... two aspects that are important to a country with a food problem. And this is where Buhler come in — with their long experience and know-how.



**LARSEN & TOUBRO
LIMITED**

Wisdom in Wheels

SOUND sense and the public's best interest characterise the policy of the Government regarding the manufacture of motor vehicles. As Mr T. N. Singh has put it, the first priority in this field ought to belong to commercial vehicles, that is, lorries and buses. Motor cycles and scooters come next and motor cars last. This is as it should be. What is of use to the group should naturally get precedence over what serves mere individuals. And in the case of owner-driven vehicles, the smaller man must be preferred to more affluent person.

Thought is also being given to reducing the present dependence on imports in automobile production. The Minister for Steel and Heavy Industry has said that if the foreign exchange position demands it, the country should stay in the bicycle age for some more time instead of going on to the scooter or automobile age.

Art At 77

A TRUE instance of authority waiting on art occurred at Bangalore last month. The scene was the house of Venkatappa the painter. Disciple of Percy Brown and Abanindranath and class-fellow of Nandalal Bose and Asit Kumar Haldar, Venkatappa is now a ripe 77 and has been ill for some months. Those who know his proud spirit and his opinion of the 'patrons' of art cannot believe that he agreed to receive the Lalit Kala Akademi's honour. The Akademi, on its part, did the right thing in going to his house to present the *tamra-patra*.

The Governor of Gujarat (who is the Akademi's president), the Chief Minister of Mysore and others who had assembled in the modest courtyard of the artist's house had to wait a full thirty minutes before Venkatappa, leaning on a stalwart piece of bamboo and helped by old friends, made his appearance. His chiselled features, old-world moustaches and piercing eye gave him the look of a king, and the Gujarat Governor gave expression to the mood of the audience when he said they felt like subjects at the court of an emperor.

Earth Movers

THE people of India are accused of caring little for history. We have fewer records and documents of a historical nature than Egypt and Iraq, Greece and Rome. But there are two culprits besides our own attitude—climate and termites. Wind and rain have destroyed most of the palaces of old, which, until the coming of the Guptas, were mostly built of wood and brick. And even now, in countless attics, termites are eating away palm-leaf manuscripts.

Termites are the enemies not only of the scholar but of the farmer as well. He dreads the ruin they cause to his crops and trees. But termites also render him a service he little sees or acknowledges. This service consists of overhauling the soil. Termites are so deft at it that a Unesco hand-out describes them as "underground bulldozers" regulating tropical soils.

This function of termites was described at a meeting held in Unesco House in Paris. Dr M.L. Roonwal, who is director of the Zoological Survey of India, presided over the session.

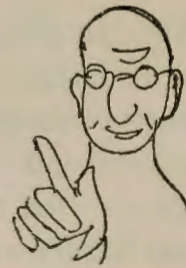
Two thousand species of termites have been identified. Some of them are harmful and others beneficial. They evidently keep up with the times; for termites, with their appetite for cellulose, are known to attack plastics as readily as wood.

The help that termites give to agriculture in the tropics has been studied by Professor Grasse of France. He has found that in some regions of Africa they burrow as far deep as 195 feet, even piercing hard layers of laterite.

In deserts their presence is a sure sign of water. In Ubangi, in the Central African Republic, cotton is cultivated on termite mounds, which are often 15 feet in height and 75 feet in diameter.

Plan-Consciousness

WHAT does the common man think of the Plan? The Planning Forum of the Mahakoshal Mahavidyalaya, Jabalpur, some time ago



IGNORAMAN

Wants to Know

When We Speak Of

'Restoring' Power Cut

are we ending it

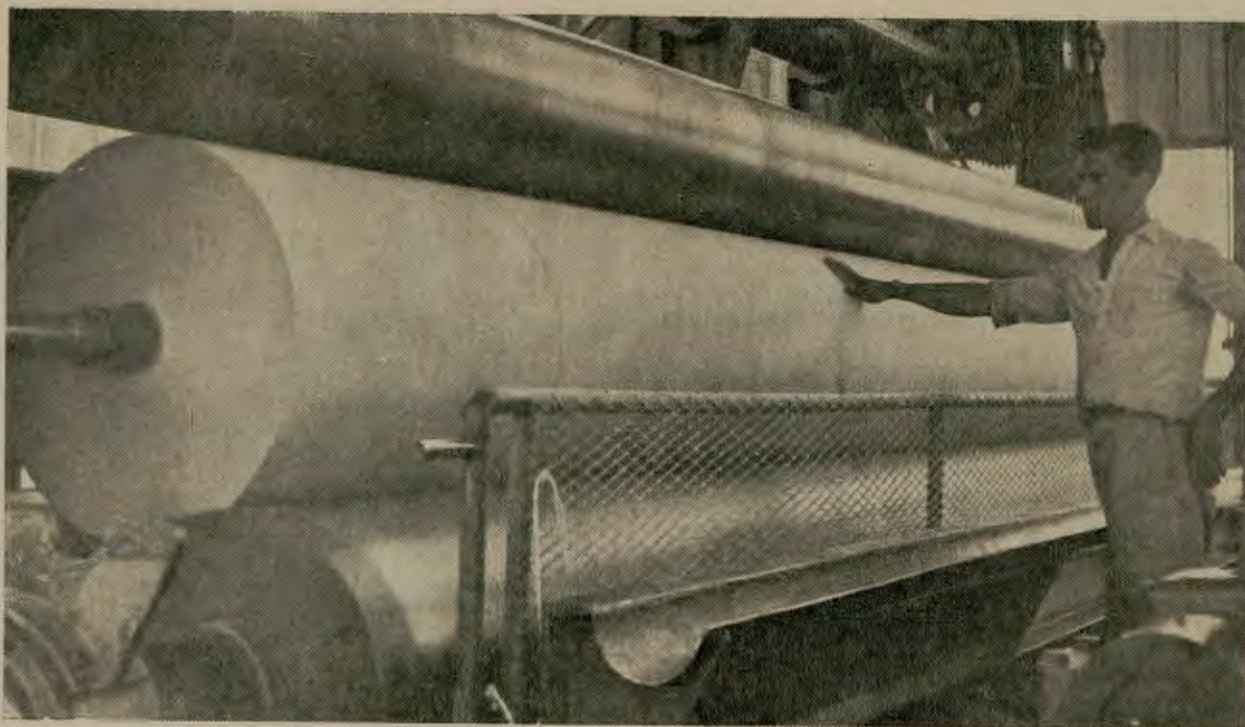
or reinstating it?

(And why not clearer words?)

conducted an opinion survey in the Pachpedi area of Jabalpur. A questionnaire covering the more important aspects of the Plan was sent to the people. The investigators were asked to make a sample survey of the people from different social and economic groups. In all they interviewed 700 people of whom 109 were women. As many as 453 of those approached were students. Of the rest, 129 were in service, 69 were engaged in labour and eight were in business. The occupation of 41 could not be ascertained.

Of the persons interviewed, about 96 per cent had knowledge of the country's planning. Two-thirds agreed that both the First and Second Plans had been successful. As regards people's co-operation, more than two-thirds agreed that the Plan had enlisted the willing co-operation from the people and one-third thought that full co-operation had not been extended to the Plan. Opinions differed on the rise of prices. For instance, a good number of people thought that the high prices were due to Government policy.

On the important question whether employment opportunities had increased during the Plan period, three-fourths answered in affirmative and one-fifth in the negative. As regards family planning, one-fifth knew nothing of the scheme, though three-fourths knew of the alarming growth of population.



STORY OF OUR PAPER INDUSTRY

Need For New Raw Materials To Meet Increasing Demand

PAPER-MAKING was introduced into India in the tenth century by Muslim rulers and it became an important cottage industry during the reign of Akbar. Until the advent of the British, it flourished all over the country. Even now some of the best types of paper are made by hand.

The beginning of modern paper industry in India dates back to 1832 when the first paper machine was established by Dr Carey in West Bengal. This venture failed after some years and the machine was transferred in 1870 to the Royal Paper Mills at Bally, which had started in 1867. The raw material used was waste paper, rags and jute cuttings. The Upper India Paper Mills, Lucknow, and the Titaghur Paper Mills, Calcutta, were started in 1882 and 1884. Both these began using "moonj" and "sabai" grass. The Deccan Paper Mill was set up at Poona in 1887 and the Bengal Paper Mill at Raniganj in 1891.

However, all these mills found it difficult to compete with foreign paper made from wood pulp. When, during World War I, imports ceased, the Indian industry was able to improve its position. After the War, competition from imported papers became severe again and the industry had to apply for protection in 1924. Protection was granted to the industry in 1925 and was renewed periodically until its withdrawal in 1947.

Under the shelter of protection, the Indian paper industry developed rapidly. In twelve years between 1925 and 1937, the number of mills increased from six to

nine and production expanded from about 27,000 tons to 48,500 tons. A significant development in this period was the manufacture of pulp from bamboo which enabled the industry to do away with imports of foreign wood pulp to a considerable extent. During World War II, the number of mills increased to 15. Production of paper and paper-board during 1948 was 97,905 tons and at the beginning of the First Plan in 1950, 108,907 tons.

At the beginning of the First Plan, there were 17 paper factories with an annual capacity of 136,600 tons. The demand for paper and paper-board, exclusive of newsprint and newspaper, which was about 175,000 tons in 1951-52, was expected to increase to 200,000 tons by 1955-56. To meet this demand, a capacity target of 211,000 tons was envisaged by 1955-56. The targets and actual achievement of the different sectors of the industry have been, as given below:

	1955-56 Target			1955-56		
	Number of units	Annual rated capacity	Production	Number of units	Annual rated capacity	Production
	(production figures in tons)					
Paper and board mills	19	211,000	200,000	20	210,000	187,000
Newsprint	1	30,000	27,000	1	3,000	3,600
Strawboards and other boards	20	58,500	52,600	34	59,300	34,500

Although the production of paper and paper-boards increased considerably during the First Plan period, it could not cope with the rapidly increasing demand and, therefore, there were heavy imports of paper and paper-board. Certain varieties of paper and paper-boards, for example cigarette tissues, coated boards, art chrome paper, sensitised cheque paper and cellulose film, were manufactured for the first time in the country. After much delay and troubles, the first newsprint mill, the National Newsprint and Paper Mills in Madhya Pradesh (NEPA), went into production in 1955. Its output was 2,563 tons in 1955 and 10,792 tons in 1956.

DURING SECOND PLAN

IN view of the tempo of progress in education, social welfare and industrial development during the Second Plan, the Planning Commission expected the capacity for paper and paper-board to increase to 450,000 tons and production to 350,000 tons by 1960-61. The targets of capacity and production were surpassed in the case of strawboards and other boards and almost fulfilled in the case of paper and paper-board. However, owing to foreign exchange and other difficulties, the performance in newsprint production lagged far behind expectations. The figures are given below:

	1960-61 target			1960-61 actuals	
	Annual rated capacity	Production	Number of units	Annual rated capacity	Production
	(production figures in tons)				
Paper and paper-board	450,000	350,000	28	410,000	343,200
Newsprint	60,000	60,000	1	30,000	22,900
Strawboards and other boards	59,300 to 40,000	35,000	26	77,200	54,500

The manufacture of a wide variety of papers and boards was established during the Second Plan. These included: writing, printing, art, bank, bond, chrome, cartridge, duplicating, litho, offset, azure-laid, cream-laid, wove, drawing, cheque, manifold, blotting and base papers, as well as paper for calculating machines and teleprinters, kraft and brown wrapping paper, high wet strength blue match paper, cigarette and wrapping tissues, toilet paper, quality boards, duplex, triplex and ticket boards and vulcanising boards.

Imports of newsprint and paper were severely restricted in the national interest during the Second Plan. The imported quantity came down from 71,128 tons in 1956 to 17,811 tons in 1959. This led to scarcities, complaints of non-availability and rise in prices. The Government, therefore, ordered a Tariff Commission Enquiry into the costing of paper and set up a committee to enquire into complaints and to ensure better distribution. This committee was able to regulate distribution through the paper mills without resort to controls.

THIRD PLAN TARGET

IN the Third Plan the demand for pulp, paper and board is bound to increase further, both in quantity and in range. The mass education programmes will add to the number of readers. With rise in incomes,



Inside NEPA mills : Heaps of peeled 'sabal' logs to be taken to the grinders.

the consumption per head is also bound to go up. Growth of industries will add to packing requirements. Bearing all these in mind, the targets for paper and board for the Third Plan have been fixed as follows:

	Annual capacity (tons)	Production (tons)
Paper & paper-board	8,20,000	7,00,000
Newsprint	1,50,000	1,20,000
Strawboards and other boards	90,000 to 1,00,000	70,000

LOCATION OF PAPER MILLS

THE most important factor determining the location of a paper mill is availability of raw materials near at hand. As the principal cellulosic raw materials such as bamboo and 'sabal' grass are required in bulk, paper factories have hitherto been located in or near hills and forests. However, with the expansion of the industry in the Second Plan and with new schemes already cleared, the available resources of conventional raw materials have been almost completely exhausted. In the further development of the paper industry there will have to be a major shift to new raw materials not so far exploited to any significant extent, such as bagasse, rice, straw and paper waste. Some of the existing units have already made a start in the use of bagasse by setting up plants for using bagasse pulp mixed with pulp produced from conventional raw materials.

Only a limited supply of bamboo is available. The use of bamboo is likely to be more remunerative in the manufacture of rayon-grade pulp, imports of which account at present for much foreign exchange. It is inevitable that the paper mills should shift from bamboo to bagasse. Additional capacity for paper might, therefore, have to be closely co-ordinated with the expansion of the sugar industry.

YOU ASK US

Questions from readers on planning and development will be answered on this page. It might be noted that the purpose of this service is to provide information. Trade queries will not be entertained.

New Railway Lines

QUESTION from Mr L.C. Jain, Hatta (M.P.).

What is the Third Plan programme for laying new railway tracks?

ANSWER: The Third Plan has allotted Rs 890 crore for the development programme for the Railways. In addition, Rs 350 crore are to be contributed by the Railways from their depreciation fund.

Of this sum, Rs 170 crore are to be spent on the renewal of old tracks, Rs 147 crore on laying new lines and Rs 70 crore on electrification. The renewal programme includes renewal of 5,000 miles of complete tracks, renewal of rails on 2,500 miles and renewal of sleepers over 2,250 miles. Extensive welding of track joints is also undertaken. Electrification is envisaged on 1,100 miles.

The length of new lines will be 1,200 miles in addition to those carried over from the Second Plan, namely, Garhwa Road-Robertsganj, Sambalpur-Titlagarh and Bimlagarh-Kiriburu. Some of the proposed new lines are: Jhund-Kandla, Madhopur-Kathua, Udaipur-Himmatnagar, Diva-Panvel-Kharpada with extension to Uran, Patharkandi-Dharmanagar, Guna-Maksi, Ranchi-Bondamunda, Hindumalkot-Sriganganagar, Ghaziabad-Tughlakabad, Bailadilla-Kotavalasa and a line to Haldia port.

The programme also includes 200 miles of new lines in the coal-mining areas.

A few other new lines are under consideration.

Family Planning

QUESTIONS from Mohan Chandra Joshi, Kidwai Nagar, New Delhi-3.

1. What steps are being taken by the Government to educate the people on family planning? What are the facilities provided for this purpose in the Third Plan and how far they have been successful?

2. Do we have sufficient roads to meet our transport needs? What steps are being taken to handle the road traffic?

ANSWERS. 1. In the first two Plans, 549 clinics had been opened in urban areas and 1,100 in rural areas. The States set up special units for advising the people. A broad-based training programme had been drawn which included centres for training of instructors, a rural training demonstration and experimental centre, development of training clinics into regional training centres, touring training teams and *ad hoc* training courses. Family planning had also been incorporated in the normal training programme of a number of teaching institutions for doctors and medical auxiliaries.

The Third Plan continues these measures and further provides for the education and motivation of family planning. The number of clinics is to be increased to 2,100 in urban areas and 6,100 in rural areas. The services of private medical practitioners and village *dais* are to be utilised. The help of voluntary

organisations, labour organisations and other associations is being sought. Emphasis is being given on moral and psychological elements, women's education and opening up of employment opportunities for women, besides advice on birth control and welfare of the family.

As a result the use of contraceptives and the number of sterilisation operations have been increasing.

Road Transport

2. As with Railways, our road traffic also is increasing rapidly and the transport facilities are being increased to keep pace with it. During the first two Plans, 1.44 lakh miles of surfaced roads and 2.50 lakh miles of unsurfaced roads were built. The Third Plan aims at providing a metalled road within 1½ miles from any village in all developed and agricultural areas in the country. Special attention is being given to the needs of the backward areas. The number of vehicles for carrying goods as well as passengers is also being increased. The number of goods vehicles increased from 73,000 in 1948-49 to 1,60,000 in 1960-61 and that of passenger vehicles from 27,275 to 50,000. Along with the number, the capacity of vehicles also increased during this period. The annual production of commercial vehicles, which was 30,000 in 1960-61, is expected to be doubled by 1965-66. The number of commercial vehicles on road will rise to 3.65 lakh by the end of the Third Plan, and they will carry 23,350 million ton miles of traffic as against 10,600 million ton miles in 1960-61.

Panchayati Raj

QUESTIONS from Mr. P. J. Pandya, Sojitra, Dist. Kaira (Gujarat)

(1) What are the functions of the Panchayati Raj?

(2) Will the Panchayati Raj narrow down the jurisdiction of the Planning Commission?

ANSWERS: 1. "The primary object of Panchayati Raj", states the

(Continued on page 22)

PLAN QUIZ

1. What was the value of fish and fisheries products exported by India in 1961-62?

2. Fill in the blanks :

(A) Oil was struck in India for the first time at.....in the year.....

(B) The production of oil in the various fields of India totalled.....tons in 1961 and is expected to reach.....tons by 1966.

(C) India imported petroleum crude and products valued at Rs.....in 1961-62.

3. In how many establishments the Pay Roll Savings Scheme has been introduced during the past three years? What is the number of subscribers and what is the monthly collection?

4. Where is the Poorna Project and what are its main features?

(Answers on page 22)

NEW DESIGNS FOR HANDICRAFTS

K. Rajasekhara Udupa

WITH the advent of Independence, it was realised that systematic action was required to alleviate the hardships and difficulties of our traditional artisans who are found in considerable numbers in all parts of the country. Such action, it was felt, ought to include acquisition of craft materials, introduction of new designs as well as revival and adaptation of old ones, financial and credit facilities to artisans, and the building up of an adequate marketing organisation. The All-India Handicrafts Board was therefore set up in 1952 to advise the Government of India on measures required for improving crafts, co-ordinating developmental efforts among various State Governments and promoting marketing of handicrafts both within the country and abroad.

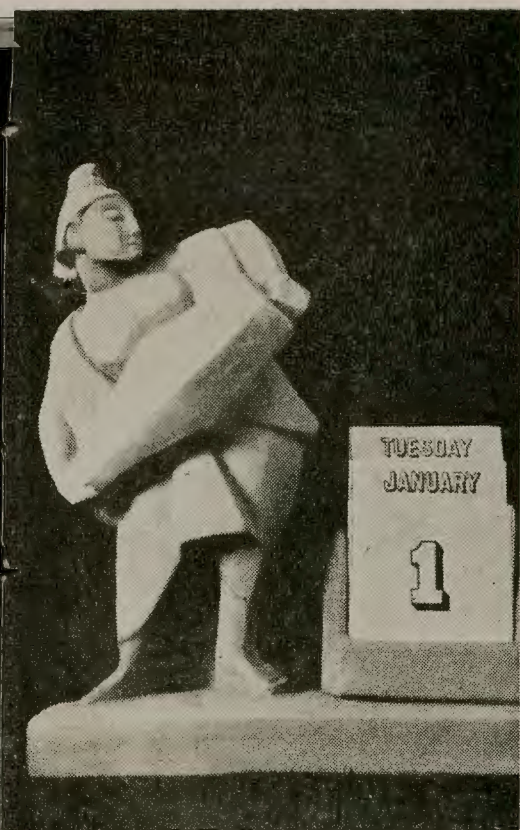
The need to adapt old designs to suit modern needs and evolve new ones has been met by the Board through the establishment of design centres in various parts of the country. These design centres not only encourage the various types of crafts in existence in rural areas but also take up for study the methods of production, the different types of artistic designs in vogue, and the types of tools used for creating the handicraft objects. Besides, they evaluate the needs of the crafts in their areas, carry out surveys and introduce changes in designs. Designers working in the centre make articles which are traditional in inspiration but are modified to suit new tastes. These articles are lent freely to the craftsmen of the area who may be interested in producing them. Methods of production are demonstrated at the centre to those who need technical help. Exhibitions of the articles designed in the centres are held from time to time to give the artisans and other people an idea of what has been achieved in this field and also to stimulate interest in other producers. Pilot centres have also been set up in parts of the country noted for certain artistic products. These centres are entrusted with the task of reviving crafts which have fallen into decay and of introducing new techniques for their betterment. Research in improved techniques of production is being carried on by the Board on an ever-increasing scale. Research is also conducted in the tools and materials used in production, such as vegetable dyes or glazes for artistic pottery. From time to time the Board gets the help of foreign experts and this has made an appreciable change in the quality of crafts produced.

A brass door-handle designed by the Delhi Design Centre.

Through training, introduction to new tools and patterns of work and modern organisation, the traditional craftsman is given a new opportunity. The wide range of articles he produces now evoke a keener interest among the prospective buyers.

Toys from Kondapalli





Calendar stand (terracotta), designed by the Bombay Centre

An important role is assigned to handicraft industry in meeting the needs of day-to-day life in rural areas. The potter, the weaver, the silversmith, the dyer and the printer subtly turn their products into works of art and bring grace and elegance to the homes and surroundings of rustic people. While the more sophisticated crafts have always depended for their existence and development on patronage and have therefore flourished in and around the cities or courts, village crafts have pervaded every hamlet in the country and have shown themselves to be astonishingly strong. However, since the incomes of so many of the buyers are limited, the craftsman is forced to reduce the quality of his goods. Even otherwise, he faces a shortage of materials. The All-India Handicrafts Board has been giving attention to the problem of supplying the craftsmen's needs.

The Board gives as much encouragement to urban crafts as to rural crafts. In this field it works in collaboration with the Ministry of Community Development and the

Central Social Welfare Board which are in a position to reach the widest possible number of people engaged in these crafts.

A FEW examples of the way in which the Board has helped handicrafts may now be given. Bihar villages specialise in making baskets and mats from the stalks of paddy and wheat. These have so far been exclusively used by the villages themselves, but now they are being produced on a commercial basis. Realising their appeal to the more sophisticated urban buyers, the Board is encouraging this craft. A special exhibition of these products was set up in the handicrafts pavilion at the Indian Industries Fair held in Delhi last year. Procurement units are being set up both in Bihar and Orissa where golden-grass baskets and mats are made in large quantities. The Directorate of Industries is trying to set up these procurement units from which the products can be sent to various markets. Another important rural industry of Bihar is applique work in which designs are made on cloth using small pieces of cloth of different colours. This is done by women to earn some money in their spare time.

Phulkhari, the craft *par excellence* of the Punjab, is also getting due attention. The elaborate embroidery made in the traditional style is being replaced by smaller motifs to make the garment more attractive. An effort is being made to revive this craft and to train new people who can help increase the production.

Colourful durries are woven mostly by Jat women. If brought into the market they would prove very

popular as coverings for beds and floors. Here also, units are being set up for purposes of collection and distribution of these goods.

Rural crafts are highly developed in Assam and Manipur where every house has a loom. Bamboo work and basket weaving have been practised

(Continued on page 28)

A metal vase from Banaras



SNIPPETS

An agreement has been signed with the Soviet Union for the manufacture of Soviet engines for the supersonic aircraft designed at the Hindustan Aircraft, Bangalore. The production will start next year... Another agreement has been signed with a French firm for the production of helicopters in India. The engine will be manufactured by a different firm. All components of the helicopter will be progressively produced in the country... The prototype of a low-cost car has been produced by the Hindustan Aircraft Factory without any foreign aid. It is a light-weight car of the four-door sedan type with accommodation for five adults and luggage space for 250 pounds. The engine has been designed and developed at the factory... A project for receiving signals from the Explorer XI Gamma Ray Satellite has been set up at the Physical Research Laboratory at Ahmedabad in co-operation with the National Aeronautics and Space Administration of the United States. Two major space research projects are under consideration... The terms of collaboration between a Japanese firm and an Indian firm in Kerala for the manufacture of transformers and other electrical equipment have been settled. ...The Central Fuel Research Institute at Dhanbad has developed a new fertiliser from coal... A new technique for measuring the rate of flow of water in rivers, using a radioactive isotope, was successfully employed on August 11 in the Mutha River at Poona by scientists from the Atomic Energy Establishment, Trombay, and the Central Water Power Research Station Poona. The method involved injection in the river of the radioisotope bromine-82... The scientific and technical personnel of the Central Government will normally get extension or re-employment after retirement, if they are fit to serve. The step has been taken in view of the shortage of trained and experienced scientific and technical personnel... A prize scheme has been formulated by the Central Government to encourage the organisation and efficient functioning of co-operative consumers' stores. Three prizes—Rs 1,000, Rs 600 and Rs 400—will be offered to the best-managed stores.

YOU ASK US

(Continued from page 19)

Third Plan, "is to enable the people of each area to achieve intensive and continuous development in the interest of the entire population.....It comprehends both the democratic institutions and the extension services through which development programmes are executed" (P. 338). This implies the functions of the Panchayati Raj. The Panchayats are expected to increase agricultural production, develop rural industries, organise co-operative societies for various purposes fully utilise local manpower and other resources for the betterment of their respective areas, provide facilities for education and other social services, assist the economically weaker sections for their uplift and maintain understanding the harmony between the people and the public servants—in short, function in such a way as to bring about all round social and economic prosperity in the rural areas of the country.

2. The Planning Commission is not an executive body as the Panchayati Raj institutions are. Hence the question of encroaching on each other's jurisdiction does not arise. On the other hand, the two could be called complementary to each other. The Panchayats will, no doubt, function as little Planning Commissions in so far as they will assess the local resources and draw plans of development for their respective areas. But this will facilitate the work of the Planning Commission at the national level by providing an

ANSWERS TO QUIZ

1. Nearly Rs 4 crore. The target of export to be reached in the Third Plan is Rs 12 crore a year.
2. (A) At Makum in Upper Assam in 1867.
(B) Half a million tons in 1961 and is expected to reach five to six million tons by 1966.
(C) Rs 95.5 crore.
3. 7,657 establishments ; 220,000 regular subscribers; monthly collection—Rs 12.5 lakh.
4. The Poorna river valley project is situated in eastern Maharashtra. It will irrigate 1.52 lakh acres of draught-stricken land and generate 15,000 kW. of power. Two dams will be built on the Poorna—one at Yeldari and the other 40 miles downstream at Siddheshwar. Power house will be located at the former. The canal system will consist of 50 miles of the main canal and 250 miles of distributaries. Work was started by the end of the Second Plan and is to be completed in the Third Plan.

accurate picture of the needs and problems of the rural population. Planning for the development of villages is only a part of the big task the Planning Commission has set for itself. Besides, a body like the Planning Commission is necessary to lay down general policies which may guide the Panchayats, co-ordinate the work done by them in their respective fields and finally evolve a homogeneous national plan.

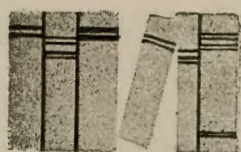
GOVERNMENT PROCEDURES

(Continued from page 13)

much less to that of a Section Officer or an Assistant, because of the superior status of her husband. She also believes that her husband is a better man than one drawing less pay. Senior officers and subordinates have different clubs and even different bathrooms in offices. Their social contacts are different and a hiatus exists between different classes of Government servants, ICS, IAS, Central Secretariat Service, Gazetted, Non-gazetted and so on. Such a caste system does not fit in with the socialist and democratic concept of our society. Even when India was run solely on the basis of caste and religion, those who were in public service had a separate caste and whether he was a Brahmin or a Kshatriya or a Shudra, all of them came to be called Kayastha. Today this official class is divided into several castes.

There are not only horizontal but vertical divisions also. In spite of the fact that we have Public Service Commission which is supposed to select people on merit, we find, unfortunately, that Government offices are run on the basis of provincial, linguistic or caste

preferences. If the head of an organisation belongs to a particular province, then, as likely as not, you will find all top officials belonging to the same province. If a Section Officer belongs to a certain language or a State, he will try to see, whenever he has to exercise initiative in an appointment or posting, that only the people whom he can trust should be there, and naturally he can trust only the people who either speak his mother-tongue or come from his own region or caste. This criticism may sound very drastic. Some may say it is exaggerated. But if anybody would make a close examination of different sections of the Government, the truth will become evident. He will find people of the same brand name gathered together. I believe that most of the fissiparous tendencies, linguistic, provincial or caste antagonisms, are created in the Secretariat at Delhi and the States. When in 1912, the demand for an Andhra State was made, the main ground was a dissatisfaction with the Tamil officers. Similarly when there was a demand for separation of Bihar from Bengal, the objection was the predominance of Bengali officers in the Bihar area. In other controversies that have followed, officialdom has played a leading role and until and unless Government offices are cleared of these tendencies and integration established there, national integration will be a mirage.



BOOKS

Railway Economics for Everybody

Indian Railways : K. K. Saxena
(Vora, Bombay), Rs 15.

AFTER the first century the Railways in India have their fill of problems. What they are is catalogued by Mr Saxena whose heroic summary of available printed material makes his new book a digest of the literature bearing on the Indian Railways. The necessity for a book on Railway economics is certainly accepted because it is a case of applied economics in which reality impinges constantly on theory. But the Railways present a case of monopoly under State auspices and what they do, whether it is ill or well, affects many in many places.

The historical aspect of the Railways is stressed often and enough in this volume that deals with problems and prospects. The last appears rather dim and it is clear that a book got ready in the USA (perhaps for a doctoral degree) cannot go into immediate local problems but the grave coal situation does get adequate notice. The continuing controversy over coal prices and tariffs does not conceal the fact that the Railways act not only as a carrier but as a consumer of coal and as owner of collieries. The exchange of views cuts across party lines but more hope is now placed on the efforts to raise revenue and to give the mining industry both the means and the will to develop on its own lines.

Since Mr Saxena's book is a compendium of everything so far written in the books or reports, its value for the examinee is easily established. That is its chief or obvious merit, but M.P.s. who are forced to read the Railway budget papers may find the book useful in spite of a high price (Rs 15 for 265 pages). The critical view does not always emerge but the lack of a national transport policy is regretted for several reasons. The handicaps like the existence of two gauges and the continued use of

overaged engines and rolling stock are recognised but the operational efficiency of the State Railways seems also suspect. There is no passionate pleading for diesel or electric traction because what Italy or Japan does is not quite relevant in the light of Indian conditions. That a transport bottleneck persists long after the war is a source of anxiety to Railway users mostly. The situation calls for long and careful treatment. But the Railways must have extra revenue though they are not eager to stifle competition from road transport in view of what the Neogy Committee has said in its preliminary report for co-ordination. That Railways have problems more than achievements must be patent to those who look at Britain's post-war failure. Unification has not helped B.R. any more than earlier grouping and the Treasury has suffered much loss from the nationalisation.

The fact that our Railways are indispensable and are affected by the fact or pace of economic growth is fully illustrated by the course of the argument and the conclusions of Mr Saxena whose survey of the position on railways leads to mild comment on the increase in staff and the deficit in passenger amenities.

There is even a guarded notice of corruption dealt with in illuminating detail by the Kripalani Committee seven years ago and the analysis of Railway accidents suggests only that uncontrollable factors may be at work.

For a college student who wants to get all or most of the available data into his head the book is admirably designed but it will not yield much ammunition for critics who see in the performance of the State Railways little cause for satisfaction. A point to consider is that this book is not meant to be a topical book of the hour but a companion for the desk.

There is one omission to which a reviewer may refer. The light Railways, run by companies with Government guarantee—e.g. the Shahdara-Delhi-Saharanpur Railway, are hardly noticed. Their prosperity certainly belongs to the past and the refusal to nationalise all lines after taking over some light Railways suggests that expediency can prevail over principle—in a field in which policy was certainly settled by the Acworth Committee.—R.

Plant Diseases

Bacterial Plant Diseases in India, G. Rangaswamy (Asia Publishing House), Rs 8.75.

THE book is divided into four chapters. Chapter I gives a general account of bacteria, and Chapter II deals with the study of bacterial diseases, the symptoms they cause and their control measures. Detailed account of individual bacterial diseases is given in Chapter III while the last Chapter consists of a brief review of the Indian work on bacterial diseases. In the Appendix at the end is given a list of minor bacterial diseases.

The author has made an attempt to bring together for the first time all the work carried out on bacterial diseases in this country.

The book gives a number of figures most of which are good but the symptoms in several cases would have come out better if the figures were enlarged further. A few colour plates of important bacterial diseases like Citrus Canker would have enhanced the value of the book.

A section giving more details on the techniques would have been useful for a student of the subject.

There are a few mistakes which have probably crept in inadvertently; for instance, the first citation on page 85 under references seems to be incomplete. On page 125 in the first line the first word should be "form" and not "forms". In Appendix on page 152 the host *Tectona grandis* should have been put under the family Verbenaceae and not Apocyanaceae.

The format of the book is good and the price is moderate and it is a useful addition to the existing literature on plant pathology in India.

—D. Suryanarayana.



Bansilal's Hens Lay Golden Eggs!

THIS is the story of Bansilal Balmiki who now earns more than Rs 100 per month by devoting his extra time to his small poultry farm.

Bansilal is an enterprising young man of 32. He comes from Dhamtari, a village in Abhanpur block in Raipur District of Madhya Pradesh. How did he think of starting a poultry farm? I asked him. Mr Nazir Husain, a teacher in a local high school, ran a poultry farm. It was from him that he got the idea. He left Dhamtari and came to Abhanpur in search of a job. He had read up to the middle standard and secured a job in the local railway office where he is still employed as a sweeper getting Rs 85 per month.

When did he start his farm?

About two years ago, he said. First he bought some *desi* birds. Unfortunately they died one after another. Then he approached the Veterinary Extension Officer and sought his advice. He encouraged Bansilal and assured him of every help. Bansilal deposited Rs 30 with the V.E.O. and got 16 pullets and two cockerels, each four months old. In addition, he also got one bundle of wire net (150 feet) and one maund of poultry mesh worth Rs 101 from the block. After six months the hens began producing eight to 10 eggs per day which he started selling. In the meantime hatching started and the birds went on multiplying. Bansilal now began selling the birds as well. Whatever profit he earned he invested in his farm. He made a concrete room for the birds, which are now 100 in number.

Bansilal bought a transistor set about eight months ago or after about a year he had started his farm. Why did he buy a transistor? Well, music was his second love.

He now proposes to expand his poultry farm on more scientific lines.

Would he not give up his job when the farm flourished? I asked him. Bansilal did not reply. With a smile he switched on his transistor.

K. B.

FORTNIGHT IN YOJANA BHAVAN

THE proposals of the Railway Ministry for additional movement of coal at an estimated cost of Rs 120 crore and creating additional line capacity to move 10 million tons more of general goods were reviewed at a meeting held on August 17. Mr. Vishnu Sahay, Member (A & T), stated that the Planning Commission had accepted the proposal in January 1962 and the Railway Board had been authorised by the Commission and the Ministry of Finance to enter into commitments in connection with the programme on the understanding that any additional funds required over and above the budget provision in the current year would be arranged through supplementary grants.

Other decisions taken at the meeting were: (a) the Railways should examine the possibilities of adjustments in their existing line capacity and new lines programmes to keep down the expenditure; (b) additional wagon building programme for an increase in the target of traffic in general goods by 10 million tons should go forward. The Railways should examine the position regarding steel etc. with the Steel Ministry; (c) the Railways' requirements in regard to additional diesel locos for general goods traffic would be reconsidered and decision taken after a few months; (d) the possibility of reducing cross movements in foodgrains etc. would be examined by the Railway Board in consultation with the Ministries concerned.

Besides Mr G. L. Nanda, Minister for Planning, and the members of the Planning Commission, the meeting was attended by senior officials of the Railway Board and the Department of Economic Co-ordination.

* * *

The need for reduction in costs of materials in manufacturing and construction was stressed by Dr A. N. Khosla, Member, Planning Commission, at the Seminar on Materials Management which concluded its three-day session recently. The Seminar recommended that arrangements should be made for training Materials Managers and their staff in scientific techniques of production, planning, inventory control and materials handling. It also urged the Committee on the Plan Projects (COPP) to organise training courses in collaboration with the National Productivity Council and other suitable agencies and publish the results of its studies on inventory control in the form of case studies for the benefit of various industrial concerns.

Patent Facts

The Patent Office received 5,289 applications for patents in 1961, as against 4,503 in the previous year. Maharashtra and West Bengal shared 57 per cent of the 774 applications (721 in 1960) originated in India.

The largest number of inventions related to chemical industries, followed by mechanical engineering. The U.K., the U.S.A. and West Germany contributed a majority of the inventions relating to iron and steel.

As The Plan Moves

Second Atomic Power Station

To Be Located At

Rana Pratap Sagar In Rajasthan

THE Government of India has decided to locate the second Atomic Power Station at Rana Pratap Sagar near Kotah in Rajasthan. It will have an initial capacity of 200 MW. The Station will use uranium as fuel. It will be completed by the end of 1967 at an estimated cost of Rs 32 crore. It will help to meet power requirement of the country during the Fourth Plan.

The Station will be of the Candu type—an advanced type developed in Canada. It requires a fuel inventory of about 50 tons of uranium oxide and annual replacement of 26 tons of uranium oxide fuel. A coal-based station of this capacity would have required 2,000 tons of coal a day.

A uranium mine is being developed by the Department of Atomic Energy in Jaduguda in Bihar and a uranium mill to treat 1,000 tons of ore will be erected near the mine.

India's first power station has been located at Tarapur in Maharashtra. Global tenders for the construction of the Station have been received from Canada, France, the U.K. and the U.S.A.

Mechanised Farm

A new mechanised farm is to be set up in the Jetsar area of Rajasthan near the Suratgarh farm. It will cover an area of 30,000 acres in Sri Ganganagar district. The land will be taken on lease from the Rajasthan Government. Irrigation facilities will be made available for about three months in a year from the Rajasthan canal project. In addition, the existing perennial irrigation supply of 15 cusecs to the Suratgarh farm from the Gang Canal will be diverted to the new

farm. The Suratgarh farm will, in turn, get its 15 cusecs from the Bhakra system.

Farming operations are expected to begin by the middle of next year in about 10,000 acres; 2,500 acres more will be added in the second year.

In working out cropping pattern for the farm, an effort will be made to grow oilseeds and cotton.

Wage Board for Coal Mining Appointed

A Wage Board for Coal Mining Industry has been appointed by the Union Government. The Wage Board will have seven members including the Chairman, Shri Salim M. Merchant.

The Board will determine the categories of employees who should be brought within the scope of the proposed wage fixation and will work out a wage structure based on the principles of fair wages. It will also consider demands of labour for an immediate interim wage increase pending submission of the final report and the demands for the introduction of a gratuity scheme on an industry-wise basis.

The headquarters of the Board will be at Bombay.

Kapily Project

The project report of Rs 58.25 crore Kapily Valley Hydro-electric Scheme in Assam has been finalised. Initially a total of about 494 MW of power would be produced at the two power stations proposed to be built under the scheme.

**BRIGHT
SPOT**

20,00,000 JOBS
IN A YEAR

The development activities in the country created employment opportunities for 20 lakh people in 1961-62.

Industrial production was up by 5 per cent during the year. Watches, time pieces, gear cutting machines and radio valves were produced for the first time.

60,000 ACRES OF LAND RECLAIMED IN DANDAKARANYA

The Dandakaranya project had fully reclaimed 62,000 acres of land up to the end of June 1962.

In Umarkote, Raigarh, Paralkote and Pharasgaon areas 85 villages had been built. Village houses numbering 1,461 had been completed and 2,371 more were under construction.

Over 5,200 displaced families from East Pakistan had been moved to Dandakaranya from West Bengal. Of these, 4,584 families had been moved to village sites.

So far 13,379 acres of land have been placed at the disposal of the State Governments for allotment to landless Adivasis.

The construction and improvement of 96 miles of roads for tribal villages in Madhya Pradesh has been sanctioned. Dodra-Singsari road in Orissa has almost been completed.

West Bengal to Run Coal Mines

Under an agreement with the Centre, the West Bengal Government is to open and develop its own coalmines within the general framework of the all-India policy on coal. It will produce coal for its public sector projects included in the Plan.

(See also page 22)

ADMINISTRATION OF PUBLIC ENTERPRISES

(Continued from page 7)

head of the concern "analogous though not the same as that between the Minister and the civil servant". It went on to recommend that "co-ordination has to be largely achieved at the Minister level". This sub-committee made various other useful suggestions, including the institution of attractive incentives and the establishment of a committee of Parliament to deal with public enterprises.

The Government accepted the latter suggestion of the sub-committee and decided to appoint a joint committee of the Houses of Parliament which "should replace in respect of the State undertakings brought within its purview, the Public Accounts Committee and the Estimates Committee". This Committee was expected to be constituted during the last session of Parliament, but appears to have been deferred to the next. In view of the importance and widely-felt need for such a committee, it is hoped that there will be no further postponements.

Before concluding, I should like to refer to a most encouraging recent

development. At the beginning of July the Minister of Steel and Heavy Industries, Mr C. Subramaniam, announced certain plans to reorganise the Hindustan Steel Limited very much along the broad lines advocated in this article. The General Managers of the Steel Plants would henceforth be "squarely charged" with the responsibility for the performance of the plants and for the implementation of their expansion programmes. To enable them to shoulder this grave responsibility, they are to be armed with adequate powers and necessary authority to take important decisions and exercise discretion. It is reported that "the General Managers will have almost full powers within the budget which is allotted to them, so that itemised control from the Head Office should disappear". It is proposed that Hindustan Steel Limited's functions will now be limited to "general policies, supervision, planning and co-ordination".

Thus a new chapter has begun in the search for a suitable administrative set-up for public enterprises. It

is hardly surprising that a certain amount of experimentation should have been necessary in the early years. Indeed, one can be encouraged by the manner in which the experience gained is being utilised for effecting improvements as in the case of the Hindustan Steel Limited cited above. Public undertakings must stand on their own legs and strive to contribute effectively and adequately to the national revenue. It is not enough that the public sector should be able to compete with the private sector on equal terms. It has an even higher function—to set standards and serve as a model.

NEW COAL WASHERY

The National Coal Development Corporation signed an agreement on August 18 at Ranchi with CEKOP, a Polish firm, for setting up a coal washery at Gidi in the Karanpura coalfield of Bihar. Estimated to cost Rs 8.3 crore, the washery will have a capacity to wash 2.84 million tons of coal annually. The Corporation has set up its first washery at Kargali.



Crush

the juice out

in a torrent's gush

with

Kirloskar

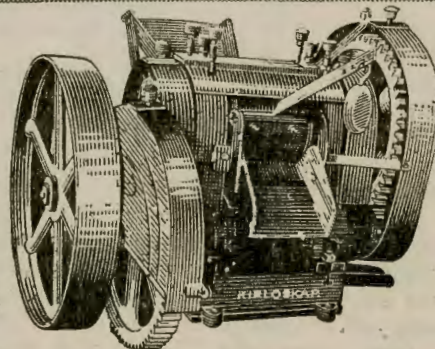
ESTD. 1898

SUGARCANE CRUSHERS

With the incentive given by the Government of India, Khandasari and Khadi Village Board Schemes, Cane Planters and Sugar Manufacturers have intensified their campaign to grow more sugarcane and attain more than self-sufficiency in the production of Sugar.

Remember, Kirloskar Sugarcane Crushers are the products of years of experience and research. Combining quality and durability, they Crush the juice out in a torrent's gush.

Available in seven sizes—four power driven and three animal driven models.



50 Years of Glorious Service to the Nation

KIRLOSKAR BROTHERS LIMITED, KIRLOSKARVADI, DIST. SANGLI.

B. 50 A

FARMING NOTES

HOW TO PREPARE A TOBACCO NURSERY

I.C.A.R. Information Service

THE preparation of a tobacco nursery for producing good and healthy seedlings has always been a problem with our farmers. This is so, because tobacco seeds are very small and delicate and require a carefully and properly prepared bed for good germination. The seedlings have also to be nursed well. Moreover, they have to be carefully watched and protected from the deadly 'damping off' disease in the early stages which affects the young seedlings. The following suggestions will be helpful for obtaining fine and disease-free seedlings.

The seeds should be first dipped for 15 minutes in a weak silver nitrate solution (obtainable from a nearby chemist's shop). It can be prepared by diluting one part of silver nitrate with 100 parts of water. This helps to ward off some fungus disease like black shank. After the soil is well dug, rubbish can be heaped and burnt at the site of the nursery. This is called 'Rab burning'. This helps in sterilising the nursery and destroying all the soil organisms present in the nursery. The clods are to be broken to get an excellent tilth before sowing. Generally, the nursery beds are made about 4 to 6 ft. long or even smaller and about 3 or 4 feet broad, which facilitates easy reach from both the sides for sowing, watering or for chemical treatment. Raised seedbeds can be prepared and manuring done with sieved wood ashes.

KITCHEN GARDENING

IT is now time to plan a kitchen garden. Every available space in a farm or household can be used for growing vegetables. The only important things are a little sunshine and some good water to help the vegetables grow well.

Vegetables play an important part in our diet. With their rich mineral and vitamin content they can keep the

doctor away. They are becoming costly and beyond the means of many people. It is estimated that a family of six members requires about four pounds of vegetables per day. Though this quantity may be difficult to obtain, at least a minimum of two or three pounds have to be provided. Every family has, therefore, to make arrangements for an annual production of 1,000 lb of vegetables. Normally a five cent plot can yield all the vegetable needs of a farmer's family. This area can be cropped twice or more with vegetables in a year.

Layout and Cultivation

A well-planned and well-laid out kitchen garden can give more vegetables than one laid out without a plan. The whole area can be divided into two portions, preferably separated by a pathway and each portion subdivided into small plots based on the types of vegetables to be grown. Different vegetables grow and mature at different times and they are removed from the field at different times. A good plan is essential to time the operation and to keep the land with vegetables the year round.

The success of vegetable cultivation depends on manuring. Heavy manuring is important. The soil can be enriched by adding plenty of well-rotted cattle manure or sieved compost. It can be supplemented with fertiliser mixtures containing nitrogen, phosphoric acid and potash. The application of about 25 lb of a fertiliser mixture 12:6:6 will be a

satisfactory dose for the five-cent vegetable garden which you plan to raise.

There are excellent varieties of vegetable seeds evolved at Agricultural Research Institute, Coimbatore. You can get these from the Agricultural Depot. They give satisfactory yields. The Extension Officer (Agriculture) will also help you to choose the best vegetables.

Protection of the crop from pests and diseases is also necessary. The most important thing to remember is not to choose chemicals which are highly poisonous or those that leave a bad odour in the vegetables. Your Extension Officer (Agriculture) will help you in the selection of chemicals.

CONTROLLING CRABS

CRABS cause heavy damage to paddy crops in wet lands and in many paddy-growing areas. They live in deep, moist burrows made in the paddy fields and multiply in summer. As soon as water is let in the fields during the month of September one can see innumerable adult and young crabs coming out of these burrows. After the field is prepared and levelled for paddy crop, one ounce of Endrin can be mixed with 6½ gallons of water and the solution sprayed on the crabs and burrows on both sides of the bund. The same treatment can be adopted when the transplanted paddy crop is affected. An ounce of Endrin will be enough for an acre. The cost of the treatment is only Rs 2.



A well-prepared tobacco nursery showing healthy seedlings

OVER TO YOU

NATIONAL INTEGRATION

ONE of the best ways to implement national integration would be to establish inter-state marriage relationships among the top-ranking leaders of India. Only then can you bring in integration on national lines. To bring in homogeneity in life such inter-state marriages were encouraged in the past, as will be evident from the history of ancient Indian kingdoms and the Victorian era.

Tanjore

R. V. IYER

NEW FEATURES FOR YOJANA

SINCE the closure of *The Delhi Hindustan Standard* which used to bring out, once a week, a full-page feature 'Economic Survey', devoted to the current economic problems, I have not come across any other journal published in the State giving comprehensive economic news coverage.

Yojana with its unbiased, correct, concrete and authentic review of economic reports and remarkable articles on research extol appreciation from men in power and private circles alike. To make this valuable journal more popular and helpful to students and research scholars, I suggest that new features on current economic problems and policies confronting various Ministries at the Centre, Planning Commission and Parliament should be added to it.

Criticism of our Five Year Plans appearing in numerous newspapers and journals also needs some space in a "journal published on behalf of the Planning Commission".

Delhi

R. L. PATELA

I OFFER the following suggestions to make *Yojana* more meaningful.

(1) A new feature "Facts and Figures" may be introduced. It should give the comparative production figures before Plan and during the Plan period.

(2) The articles of topical interest should be given proper place.

Amravati (Maharashtra)

W. S. KALE

NEWS—FAIR & UNCOLOURED

THE daily newspapers published in India are nothing but mouth-pieces of vested interests and the news published by them are grossly coloured.

Yojana forms an excellent medium for planning news. Could you tell us if the government cannot start a daily newspaper which will give the general public a fair, broadminded newspaper to read?

We would also like to see more copies of the *Yojana* at the book-stalls.

Kanpur

BHARATI BHAGWAT

QUALIFIED TEACHERS

THE number of higher secondary schools is to increase to 6,390 during the Third Plan period and that of the training colleges for teachers to 312. But have any steps been taken to attract qualified persons for taking up the responsible job of teachers? Perhaps none worth mentioning. I have known of a higher secondary school which had to do without a teacher of physics for years. The authorities had to requisition the services of a part-time lecturer who used to devote an hour in the afternoon. The result was that the students who had to attend their classes from the morning had to wait for the physics class in the afternoon and had to go home late. In another school there was a vacancy for a teacher of mathematics. For months the school authorities tried their best to recruit a qualified person but failed. As a teacher told me, formerly it was qualified persons who used to join the teaching staff of a higher secondary school. Now in rare cases could any school get a response from a really qualified person for a vacancy. The result is that in most cases it is the students who are worst hit.

Technology and industrial progress has opened new avenues for the youth of our country. A qualified young man or woman would naturally go in for a better job in a better scale rather than go in for the routine life of a school teacher. In the present circumstances schools have to remain satisfied with the services of less qualified staff. It follows therefore that until qualified teachers are selected students will be deprived of sound training. As an Educationist observed (Strengthening Education at the Root, *Yojana*, July 8, 1962), 'Such selection would involve the payment of liberal remuneration to the teachers who could lead a contented life and whose main duty and responsibility should be training future citizens who are capable of discharging the manifold functions of a complex society.'

In other words to enlist the services of qualified persons in higher secondary schools we have to offer more incentives. It is time suitable measures were taken to improve the scales of pay of higher secondary school teachers so that qualified young men and women could take up the profession of a teacher as a career.

Delhi

S. K. MITRA

UNIVERSITY STANDARDS

IN an editorial in your issue of July 8, you seem to assert that educational standards in the universities are not falling. What a fond hope! The venerable Rajaji recently observed in "Swarajya" that the rupee of today is worth only three annas of 1939. On the same analogy I would say that the M. A. of today, of whom I see so many around, must strive hard to equal the attainments of the Matriculates of my day. I am referring to the first decade of this century.

Madras

M. R. AIYAR

NEW DESIGNS FOR HANDICRAFTS

(Continued from page 21)

for centuries. In Bengal, the Kantha is a picturesque craft. Quilts and bed-spreads are made by closely stitching old saris together. Small-run stitches in different coloured threads are used for making animal and flower motifs all over the surface of the quilt serving the purpose of both giving it a design and holding the pieces of cloth together. Discarded borders of saris form a lovely pattern. This craft, which is used for putting torn clothes to good use, is now being encouraged at Santiniketan and developed also in the Birbhum district.

The development of rural industries poses many problems. The chief of these is the reluctance of the producers to sell their goods which have for centuries been produced only for domestic needs. A great deal of persuasion has to be done to convince the Jats of the Punjab to place their durries on the market since the idea persists that weaving for profit is the specialised field of a certain caste and any other caste which goes in for this pursuit is bound to lose caste. Superstitions attach to the selling of many home-made things, for instance, the things made for a daughter's dowry. Another problem is to collect the products from areas widely removed from each other and bring them to the market. The rural areas of India are still lacking in proper communication and their development is necessarily hindered by this fact. The Government, however, is doing everything in its power to place the rural craftsman on an equal footing with the urban worker.

PIPARLA, a small village of 568 people near Bhavnagar in Gujarat, has recently elected women to its seven-member Panchayat. There is a speciality of the elections. Since the inception of Panchayat in this village ten years ago, all elections have been unanimous and uncontested. When the time for election draws near, the villagers hold meetings to put up candidates. Those old members who have betrayed the trust of the people are replaced by promising persons. The womenfolk also participate in these discussions. This year the people decided to entrust the reins of the village into the hands of the womenfolk.

Incidentally some women of the village had just attended a women's camp at the adjoining town of Sonagadh where they had learnt new ideas.

The women of Piparla not only rock the cradle at home and wield the sickle in the field but also tend the cattle and do embroidery work in the traditional way. The women members elected are led by Ujamben, an elderly widow who tends a dozen of cows and finds time to guide the activities of the Panchayat. Among the other six members are a Harijan, four from the backward communities like cowherds and Koli and two Brahmins. The Harijan member,

Sonaben, is seen at the meetings with her four-year old daughter who sits intently and silently through the deliberations. Characteristically, the meeting starts with the watering and circumambulating of the Tulsi plant in the courtyard of the Panchayat.

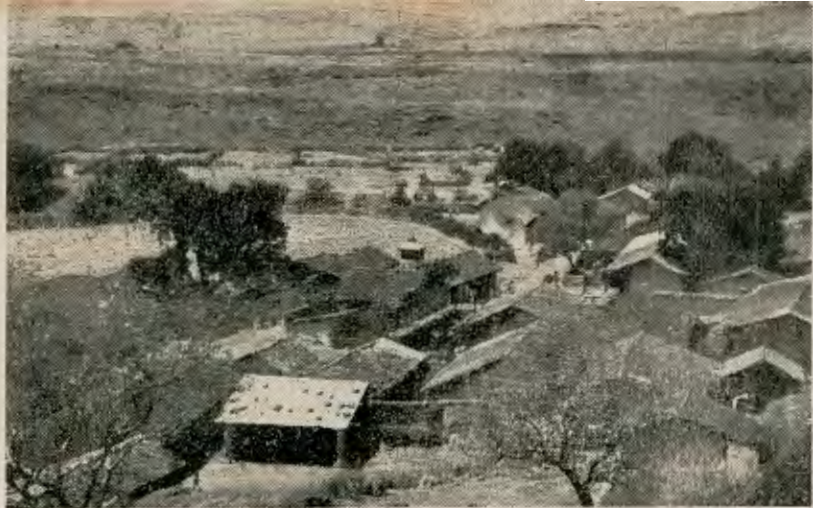
In electing these women, the menfolk had a very simple logic in their mind. The activities and functions of the Panchayat, they thought, were not much different from the duties

of a housewife. Cleanliness of the village as of the home, supply of drinking water, child health and care, maternity welfare, education of children—all these were women's jobs and hence women were better suited to do them. If they had been doing these jobs at home, they could do it for the entire village too.

And the women members are proving worthy of the trust reposed in them by their people. Piparla already had broad, paved streets, a school and a co-operative society of cattle-breeders. The new Panchayat promises to give the village pure drinking water, a milk centre for school children, a maternity and child welfare centre, an Ambar Charkha and sewing training centre, a pumping set to raise a garden in the school, smokeless *choolahs* in every home, a Balwadi (children's nursery), compost pits and a host of other improvements.

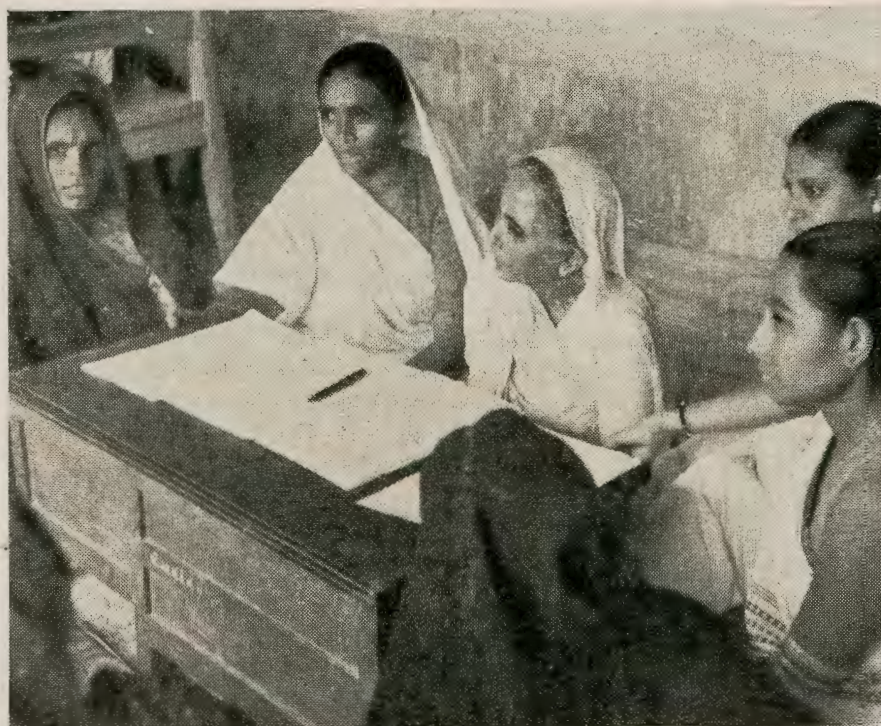
A beginning has already been made. Compost pits have been dug and the village is rid of ugly dumps of cowdung. A milk centre has been opened which gives half a pound of milk to every child every day. The village well has been hygienically built. The maternity and child welfare centre is coming up. Of course the women get full co-operation from the villagers in all the programmes.

(Reports on two other village Panchayats run by women members appeared in *Yojana*, April 15, 1962 and April 2, 1961.)



Those Who Rock The Cradle Rule The Village

Piparla's Panchayat in the Hands of Women



Ujamben with her colleagues at a meeting



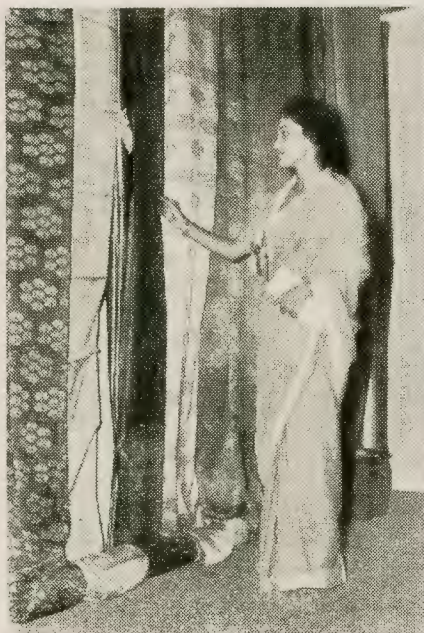
PRIDE OF PLACE

CHIKAN WORK OF LUCKNOW

IF Lucknow is famous for Dussehri mangoes it is also well known for its chikan work, a kind of embroidery on white cloth or muslin.

An old craft, chikan work is followed as an industry in and around Lucknow by craftsmen who are specialised in one or other type of stitching. The designs are first drawn on paper according to which a wooden block is made. They are stamped on cloth and sent to the embroiderers. With the help of needle they render the designs on cloth, using bleached, untwisted yarn of a superior quality.

It is not the floral motifs alone that mark a chikan work. It is the excellent craftsmanship that distinguishes it from other varieties of embroidery art. In order to make the work more attractive the craftsman introduces different kinds of stitching which brings out the designs in bold relief. For instance, knotted stitches used in *murri* and *phanda* lend the designs a raised surface. But perhaps the best example of chikan work is the *jali*. To produce the effect of a net the craftsman does not take out the threads but rips small holes in the fabric, the ends of which he stitches later. The process



of chikan work is intricate and it requires a skilled craftsman several days to cover a full length cloth.

Chikan work is usually done on saris, kurtas, napkins, tray covers, tea cosies and table covers. Because of its grace the work has earned popularity and particularly chikan saris are in great demand.

NIYAZ ALI IS THE BEST V.L.W.

Mr Niyaz Ali of Shahganj in Jaunpur District (U.P.) has been adjudged India's best Village Level Worker in a nation-wide competition. He has been awarded the first prize of Rs 2,500.

The second prize of Rs 1,500 has gone to Mr Sukhdeo Nandal of Shahkunda, Bhagalpur District, Bihar.

RAMESHWAR LAL IS "UDYAN PANDIT"

Mr Rameshwar Lal Nopany of Motihari in Bihar has won the all-India competition in mango growing organised by the Indian Council of Agricultural Research last year. He will receive the title 'Udyan Pandit' and a cash prize of Rs 5,000.

BHILAI REACHES FULL CAPACITY

The Bhilai Steel Works achieved, in the first half of 1962, the installed capacity of one million tons of ingot steel for which the plant and equipment were designed, while in some shops the capacity has been exceeded.

Construction work has started for the expansion of the Plant from one million ton capacity to two and a half million tons of ingot steel per annum. The work is to be completed in four years. According to the schedule, two more coke oven batteries, one more blast furnace of bigger size and two more open hearth furnaces of double the size of the existing ones will be erected and commissioned during the first two years.

DURGAPUR SETS UP RECORD

The Durgapur Steel Works set up a record on August 15 when it produced 3,641 tons of iron from its three blast furnaces in 24 hours. The third furnace, commissioned two months back, produced 1,403 tons—nearly 150 tons more than its rated capacity.

YOJANA

FORTNIGHTLY JOURNAL PUBLISHED ON BEHALF OF THE PLANNING COMMISSION



“Kastkari Parcha” works wonder in Raipur



A group of women from Kusmi, one of the progressive villages in Pallari Block.



A PACKAGE

Bigger Crops With The Aid Of 'Khad' And Co-ops.

A LITTLE before Holi last year, a small team of governmental people went to Kondapar, a village in Kurud Block in the Raipur district of Madhya Pradesh. They tried to interest the villagers in a plan for increasing the yield from their lands. The villagers shook their head. Who were these townsmen to tell them about farming? Why should they presume to advise people who had tilled fields for generations?

I visited the same village sixteen months after this, when the year's harvest had come in and the villagers had a different story to tell. I first met Sri Ram, a young man of 35 who has eleven acres of land.

"How much did your land yield last year?" I asked.

"Two hundred and eighty-eight maunds."

"Was it more than what you used to get before?"

"Yes. Nearly one-third more."

Mangloo, another cultivator, told me that he got

Farmers were at first reluctant to use fertilisers or improved agricultural implements. To convince them of the important role they played in increasing the yield, demonstration plots had to be laid. Here (right) the neighbouring villagers are seeing for themselves the comparatively richer growth of the crop in a demonstration plot in Kondapar, a village in Kurud Block. (Above) Villagers of Rasmi in Arang Block watching the demonstration of a paddy weeder,



20,000 FARMS HAVE PRODUCTION PLANS

about Rs 960 from his six-acre plot of land of which five acres were under paddy. The increase in his case was nearly one-fifth, and he repaid the loan he had taken from the co-operative society.

Parsadi, leader of the village, joined the conversation. He said that conditions had changed for the better.

"In what way?" I asked.

The answer, according to all the villagers, consisted in *khad*, the fertilisers supplied to them through the farm production plan.

Mr B.D. Shastri, Project Officer, recalled to me how it had taken the Extension staff a whole night to convince the villagers of the merits of a farm production plan. In fact it was Sri Ram who was most vocal in his opposition. I looked at Sri Ram. "Yes," he said.

"Why?"

He said with some hesitation: "You know how we feel towards *sarkar log*. But we were able to see that this plan would help us."

"In what way has it helped you?"

"We have got improved seeds and fertilisers. Last year we had 34 members in our society. We took loans from the society and increased our produce. This year 22 more have become members."

Other cultivators pointed out how they had built a road and started work on a godown. A poultry unit had also been started on a community basis, and the village tanks had been stocked with 2,000 fries.

"Why didn't you do this before?"

"One, our co-operative society was poor. And two, who had told us about *khad*?"

Overleaf

YEAR IN RAIPUR

Yojana Spot Report
By Kali Biswas

Photographs above and below by courtesy of Project Officer, Raipur, the rest by the author.





Women transplanting paddy in Rasni, a village in Arang Block

WHAT is this farm production plan that has changed the life of Kondapar? It is the starting point for increasing agricultural production contemplated under the Package Programme or Intensive Agricultural District Programme (See *Yojana*, September 17, 1961 and June 10, 1962). A Village Level Worker, along with other members of the Extension agency, approaches every cultivator in the villages selected under the scheme. The cultivator and the Extension staff discuss the present practices being followed by the farmers in raising farm output, and the improvements that could be made and on that basis work out the increase in produce that will be feasible in the given stretch of land and the quantity of fertilisers, improved seeds, green manure, insecticides and the size of the loan both in cash and kind required for the purpose. In other words, they prepare a production plan for his land. The cultivator takes this plan to the village co-operative society. There it is scrutinised and endorsed by a supervisor from the Central Co-operative Bank, after which the farmer gets the loan—part of it in kind and the rest in cash.

Do the cultivators understand what a farm production plan is? They do, though they interpret it in different ways. For instance, most

cultivators call it simply *khad*. Others regard it as *kastkari ka parcha*. Again, to an intelligent farmer like Sri Ram, it is a "budget for income and expenditure".

A YEAR'S ACHIEVEMENTS

THE Package Programme was started in Raipur district in the agricultural year 1961-62. The district is predominantly a Kharif crop area, paddy being the main crop. The total land under paddy is 17.10 lakh acres. In the first year the programme reached 446 villages from 16 blocks with a population of 2.58 lakh and the total paddy area covered was 2.6 lakh acres.

Twenty thousand production plans were prepared. Fertilisers were supplied through 48 centres. More than 34,000 maunds of improved paddy seed were supplied. The use of *Dhaincha* as a green manure was introduced for the first time. As regards improved implements, a number of light, medium and ridging ploughs, paddy threshers, winnowing fans, puddlers and seed dressing drums were given to the blocks for demonstration. Before the programme started, the district had 1,225 primary credit societies. These were reorganised into 967 viable units and converted into service societies. In addition, 67 service societies and eight

better farming societies were also newly opened. The volume of short-term and medium-term loans, given both in cash and kind, came to Rs 47.48 lakh.

Since, to the farmer, seeing is believing, special attention was given to the programme of demonstrations. Apart from 375 method demonstrations, 587 composite demonstration plots had been laid. Each plot selected for this purpose had been divided into two portions. One side showed better results on account of improved methods, the other, done on traditional methods, showed poorer results. Everywhere I went I saw a number of such plots, a coloured flag indicating the nature of demonstration. For instance, red stood for fertilisers, green for green manure, blue for cultural practices, yellow for improved seeds and red and white for composite demonstration.

If the persuasive powers of the Extension staff partly converted the cultivators to take to production plans, the demonstration plots did



the rest. In fact, these demonstration plots created a sense of rivalry among the cultivators. The cultivators realised that in consideration of the money involved, it was worth while to take help from co-operative societies. For instance, for cultivating an acre of land under the Package Programme, a farmer requires roughly Rs 118 in cash and kind or about Rs 44 more than of what is required for operations under normal methods. The average yield from an acre of field under the programme is 33 maunds and 11 seers against 23 maunds otherwise. At the rate of Rs 10 per maund the cultivator thus makes a profit of Rs 60 per acre. Nandu Ram, a cultivator of Girra, a village in Pallari Block, told me he had earned even more—in fact double the yield from his eight-acre land. Mukhi Ram, who has a holding of only $1\frac{1}{2}$ acres of land, also got a better yield.

BHANU Prasad must have noticed my knitted eye-brows. Perhaps to convince me once again, he pointed to a distant bund and said, "You see the small hedge there? From that

end up to the foreground here, the tank has been excavated by us."

Bhanu Prasad is the Sarpanch of the Balodi Village Panchayat in the Pallari Block. I got up on the high bank and looked around. Before me lay a little lake the size of two to three football grounds.

"How much did the excavation cost?"

"Rs 22,000 of which Rs 7,000 only came from the block".

"What about the rest?"

"For years we have been storing grain on a community basis, each contributing 15 seers of paddy per acre. We collected the remaining Rs 15,000 by selling this community grain.

IRRIGATION NEEDED

"Tell them to give me canal water; I shall adopt the Japanese method and increase the yield further", said Jharu Ram, an enterprising farmer in his late thirties. He comes from Balodi and according to his production plan he has produced 175 maunds of paddy from his

13-acre land.

Said Shankar Vishwanath Phadnavis, "Fertilisers and improved agricultural methods help production, no doubt. But without adequate irrigation their scope is limited". Phadnavis is a progressive cultivator and has 80 acres of land. He is the Sarpanch of Hasda Gram Panchayat in Abhanpur Block. Though he has not gone in for a production plan, he has been using fertilisers for the past few years and getting very good results.

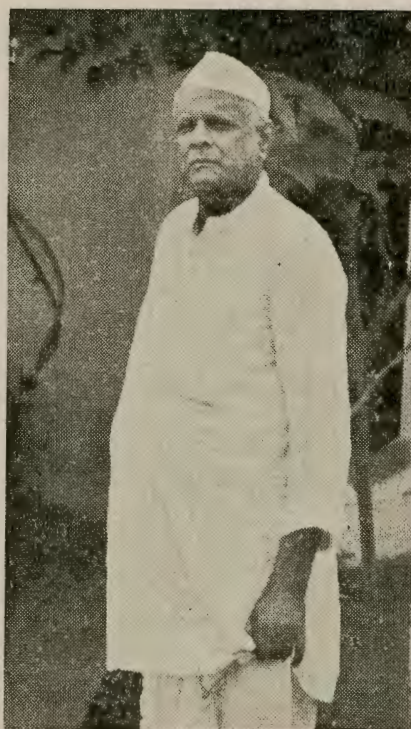
What Jharu Ram and S.V. Phadnavis said about irrigation was confirmed by others as well. Raipur has an annual rainfall of 60 inches. Tanks are the only source of irrigation in the district and there are some 12,000 of them. There is also a canal, but that helps only when the rains are not enough.

While walking along the Sambalpur Road I asked Mr Indrapurkar, implements specialist, whether the farmers were keen on using improved implements. Not all, he said, though some were acquiring one or the other implement. When we reached Rasni, a village in Arang Block he pointed to a field where a farmer was using a puddler. This farmer, I gathered, was not very keen about the puddler when he saw it at a demonstration. He thought it would injure his legs. When his fear was shown to be baseless he became convinced of its usefulness and asked for the price.

Narbadiya Bai, president of the Mahila Mandal of Kusmi, a village in the Pallari Block, gave me an idea of the progress that has occurred in her village. She started the Mandal only two years ago. Its members organised games for children and also held discussion groups on farm methods. Narayan Singh, president of the Nav Yuvak Dal of the same village, told me that out of 240 cultivating families in the village as many as 181 had become members of the village co-operative society.

"We have bought good breeds of cows from Hissar, started a forest for the village and introduced green manure for seed multiplication in eight acres of land. We have built an approach road to our village and put 1,000 fries in our tank", he said with a sense of pride.

AT Marod I saw a heartening sight—a large stretch of land on which



Apart from application of fertilisers, use of improved agricultural implements is also included in Package Programme. A cultivator of village Rasni (*left*) using a puddler. Shankar Vishwanath Phadnavis (*above*) a progressive cultivator and Sarpanch of Hasda village in Abhanpur Block. He believes that fertilisers can yield far better results provided irrigation facilities are there.

grew young groundnut plants, hybrid maize, jowar, cowpea, soyabeans and several other kinds of grasses and legumes for fodder. This was the seed multiplication and demonstration farm where some crop changes were being worked out to suit gravely tracts. If the experiment proved successful, they would introduce the cropping pattern in the package area.

"What about the cultivators? Would they like to go in for this changed pattern?" I asked Mr Shastry.

"Certainly. They are keen on the results of this experiment and almost every day some farmer or other comes to visit the farm", he said.

SOME WHO STAY OFF

It is not as though everyone has been converted. Chhabi Ram, Sarpanch of Birkoni Gram Panchayat in Mahasamund Block, seems to remain a sceptic.

The village has 231 cultivators. The co-operative society has only 81 members, which means that two-thirds have stayed out.

I wanted to know why these people hadn't joined the society and found that they were small landholders who were still repaying *taccavi* taken from Government. Obviously they could not buy fertilisers on cash. Nor were they in a position to incur a further debt from the co-operative society.

"What is the interest charged by the society?"

"Nine per cent."

"Don't the moneylenders charge a much higher interest?"

"Yes. But they can give the money on the spot. Many people can't afford to wait until the society obliges them."

In Babu Lal I found an even more outspoken critic.

"Have you got your production plan made?"

"No".

"May I ask you why?"

"Because I don't think it gives bigger yield."

"But others tell me it does."

"They have told you a lie."

I left Babu Lal at that.

BIR Singh comes from Kondapar and is 50. He has a son who also works in the field. He could not give a ready reply when I asked him why he didn't get a plan drawn up. But I found out afterwards that he was more or less a cattle-grazer, and had only an acre and a quarter of land.

Agru (50) comes from Girra, a village in Pallari Block. He follows the traditional method of using farm manure and gets 25 maunds of paddy from his field of 1½ acres.

I met him when he was on his way to his field. He told me he was not a member of the co-operative society. Formerly he had been a member of a Better Farming Society. But he had given up membership when his application for a medium-term loan was refused.

PRICES & PROBLEMS

I SPENT three days in Raipur and it rained almost all the time. The result was I could not visit as many villages as I wished to. Yet I could meet a large number of farmers and from what they said I felt convinced that the Package Programme is of help mainly to the smaller cultivators. Formerly, a cultivator holding less than five acres of land was not entitled to any help from a co-operative society. Now even those with three acres of land are entitled to benefits from societies. And membership of co-operative societies is going up. The Package Programme has thus given an impetus to the co-operatives and the Community Development movement. The villagers also seem to have realised that with increase in yields they should also have schools, health centres and community centres.

Some farmers raised another question which has to be answered if the Package Programme has to be implemented fully. That is about the price of grain. When farmers take the loan, the market price of grain remains high. But when they pay it back at the close of the agricultural season, the price is lower. The result is they sustain a loss.

There are a few other problems that the Programme has to solve. Since a good deal of power is vested in co-operative societies, the members should be given adequate protection. Secondly, in view of the indebtedness of small landholders the feasibility of giving them further protection has to be considered.

If for personal or political reasons a cultivator does not maintain good relations with the secretary of the co-operative society, will he continue to get its benefits? I put the question to Mr R. L. Mokasdar, honorary secretary of the Raipur Central Co-operative Bank. No such case had so

far arisen in Raipur, he said. That is comforting, but such instances might come up elsewhere.

Mr Mokasdar is an ardent co-operator who regards the Package Programme as his own. Recently he went to Tanjore to make a comparative study of the progress made there.

"Have you found the need for a fixed price for grain", I asked him.

"That is a vital question which has to be settled sooner or later, because the producer is also a consumer and the parity of prices has to be maintained", he added.

"Do you think the scope of the farm production plan could be increased further to help the cultivator?"

"Yes, the plan should actually include some sort of security against the illness of the farmer and his family members, his cattle and crop. For instance, if he or any member of his family falls ill, doesn't his field work suffer? Therefore, the plan should be more comprehensive."

Putting some tobacco in his mouth, he continued: "The production plan should not only mean supply of fertilisers and the like. It should cover all the processes—right from the preparation of the seed-bed to the transport of produce to market for sale. Again, 90 per cent of cultivators sell their produce in their villages at lower or what may be called false rates. Therefore, the need for a regulated market can hardly be over-emphasised. Then again, a decisive policy has to be evolved in regard to animal husbandry. Co-operative staff should also be increased to cope with the increasing volume of work. Finally, priority should be given by railways to the allocation of wagons. Get all these things done and see the results."

With a year's experience, what do we find in Raipur? There might be one or two Babulals but then there are many more Sri Rams, Narbadias, Bais and Mangloos. The success of the Programme in Raipur is mainly due to the excellent co-ordination between the official and non-official wings. As I could see for myself, right from the Collector down to the Village Level Worker, everyone moved freely among the cultivators, both in the field and villages, creating a sort of personal relationship. This has changed the entire outlook of the district.

Ensuring Social Justice In ECONOMIC DEVELOPMENT

TWO DIRECTIONAL APPROACH TO REMOVING REGIONAL DISPARITIES

Ramesh Thapar: I think the best thing is to ask Professor Srinivas to clear the air for us by dealing with the question of backward classes.

Prof Srinivas: We have a backward classes population which numbers about 150 million and it is not homogeneous. It includes about 60 million Harijans, 30 million tribesmen, and the rest who are called other backward classes. The problem of scheduled tribes and castes is different from that of the other backward classes. About the former, we have agreed to give them certain preferences constitutionally and I don't think we need to discuss them here. It is about the other backward classes that I am concerned. At present we give them concessions and scholarships and a certain amount of preference in jobs. I find that, while this is important in its own way, it also results in what I may call certain amount of injustice to other people and it also comes in the way of our helping entire communities and areas.

Tarlok Singh: We find that the real causes of backwardness are low levels of productivity. And we should find out what we can do to raise these levels of productivity, impart new skills, enable people to have the education and other facilities through which they can acquire these skills. Sometimes the problem is not merely of the individual or the group to which he belongs but is related to the conditions in an area. I think there are so many factors involved in this that no single approach might lead us to the right answers.

Prof Srinivas: I think an area-wise approach is called for and I am quite certain the skill which Mr Tarlok Singh possesses and the skill which is at his disposal—both of them can be harnessed to evolve indices of relative backwardness for different parts of the country and when we find that an area is particularly backward, we must go all out and lift it up.

Tarlok Singh: I think there are both aspects. There is the problem of enabling an area or a group to achieve the highest levels of productivity and prosperity it can attain and, secondly, within that area or group to find ways of achieving better distribution so that those who lag behind are helped to move forward as speedily as possible.

Ramesh Thapar: But Mr Tarlok Singh, I feel we should get down specifically to the question of what some call extremely underdeveloped areas or others call the depressed areas. What do you feel should be the immediate steps to raise these areas to some point?

Tarlok Singh: Let us see what we mean. There are some areas in a country which have very heavy pressure of population. With smaller population or with a more diverse economy they would not be called extremely underdeveloped or depressed. There are other areas which have got potential resources. These have not yet been developed. With a higher level of development they

will move up. Then, there are areas which have not got the resources and there you have to think of new ways. So it is not one problem. It is again a variety of problems and one would have to identify the areas and the precise problems.

Ramesh Thapar: Would you say that you are satisfied with the broad development taking place in areas which have resources, or would you accept the popular assumption that development tends to move in the direction of developed areas?

Tarlok Singh: After all most of our planning is concerned with the development of resources. The large irrigation and multipurpose projects that we have had, many of them in areas which were quite underdeveloped, are leading to the development of new resources. The programme of industrialisation, whether it is in Bihar or Orissa or Madhya Pradesh, is again helping in picking up areas which have long been extremely underdeveloped, so that this process of planning and development goes to the heart of the problem of the underdeveloped areas in which certain natural resources exist.

Prof Srinivas: May I mention here, I mean in a democracy such as the one we have, you can't always go by what I call rational factors in regional development. We have got people who are all the time clamouring that their area is backward. I think the image of one's area as backward is a powerful factor inhibiting the overall development of the country.

All India Radio, Delhi, recently broadcast a series of six discussions on "New Directions on the Plan". The series was intended to bring into focus some of the main problems and challenges of the Plan. The last discussion was held on "The Levelling Process", in which Mr Tarlok Singh, Additional Secretary, (now Member), Planning Commission, Prof. M.N. Srinivas, Department of Sociology, University of Delhi, Mrs Muriel Wasi, Deputy Education Adviser, Ministry of Education, and Mr Ramesh Thapar, journalist, participated. This is a condensed version of the discussion.

Tarlok Singh: It is a complex problem. In the short run, it is true that unless we develop those areas and concentrate on those pockets in the country in which already a certain amount of development has taken place, we shall not have, in the economy as a whole, all the resources we need to help other areas. On the other hand, it is a legitimate feeling in different areas that they must have a fair chance in the scheme of national development. This is a reason why in the Third Plan, in particular, it is proposed that there should be a long term plan for the country, say, for the next 15 years. In that plan, we should try to evolve a design—where every region in the country can see itself moving forward. Different regions are at different levels of development. Some lack the basic economic and social overheads. So we should again try to have a programme for each area to move forward step by step until by and large different parts of the country come to similar levels of development.

Ramesh Thapar: But as Prof Srinivas has pointed out, you will often get this sort of tremendous demand from a developing area. You are called for certain type of development and that development

is not warranted by the situation of resources, capital and transport. Then what is to be done?

Prof Srinivas: Well, obviously planning has to deal with both rational and irrational elements and it has to take account of various aspirations also. However, I think the general pattern of development in India is helping different parts of the country to meet their essential aspirations. For instance, in the plans of States, there is more or less uniformity for all areas developing in agriculture, education, social services, irrigation and small industries. The real difficulties arise where we are dealing with large scale industrial development. There a uniformity of approach doesn't fit in with the overall interest of the country and one has to balance the economics of today and the economics of tomorrow rather carefully.

Muriel Wasi: I was just wondering that in this discussion of regional imbalances, if we were not overstressing static difference between regions. Is it not one of the symptoms of our times that, no matter how strongly different regions feel about their own needs, their priorities and their backwardness, mobility is increasing? People are moving

much more rapidly from region to region. And at all levels, there may be a tendency for these regions to emerge in what we hope will ultimately be a national feeling. When I look at Delhi, I notice that we have a drama of all regions. I mean, plays are being presented in the languages of all regions by regional groups that are seeking to reflect their own particular culture but are helping in effect to evolve a national drama.

Prof Srinivas: I am thinking of something entirely different when I mean mobility—the mobility of agricultural labourers from one part of the country to another, the mobility of students. I feel, I may be wrong and I hope I am wrong, that certain tendencies in the country today are hostile to this kind of free movement of Indians from one part of the country to another.

Tarlok Singh: I think in any country which is developing, the real mobility that we see is the mobility of skilled and trained persons. Therefore, in those areas in which you have heavy pressure of population, one way to secure mobility, to enable larger numbers of people from those areas to move to other areas, is to intensify your technical and other training programmes. It is a fact that trained women-workers from Kerala are being assimilated in developing programmes in Uttar Pradesh and in several other parts of the country.

Muriel Wasi: Yes, without feeling exaggeratedly nostalgic, they are merging.

Tarlok Singh: So, really it is skills in education which help integrate people from different parts of the country into new activities.

Prof Srinivas: I have my doubts about this merging process. I am happy that there is movement. Movement and merger I separate conceptionally. But may we go to the question of balance of urban and the rural developments? And I am here a partisan, I like to a be partisan. I think too many curbs are being imposed on the agriculturist and not enough curbs on the urban capitalist, if I may use the old fashioned word.

Tarlok Singh: This is a real problem here, when we speak of urban

QUOTATION BOX

All life is a gamble. But there are gambles which are wisely thought out. The Five Year Plan is a gamble. Our future is a gamble.

—The Prime Minister.

One doesn't require a judge to say how a transformer has failed.

—The Union Minister of Irrigation and Power.

Our people are experts at imitating and pasting foreign labels on local vials.

—Dr A. Lakshmanaswami Mudaliar in the Madras Legislative Council.

I shall not regard India as fully independent until its richer classes, and those who ape them, stop dressing up like their former rulers. And that goes for the so-called 'national costume', too. This is a rather less slavish imitation of the costume of the ruling class in Iran some centuries ago.

—Professor J. B. S. Haldane.

In every State, there is one particularly important town or district or city which claims for itself outstanding merits. In Madras State, this role is assumed by Tanjoreans.

Every Tanjorean is convinced that there is some peculiar merit in the soil of Tanjore.....that produces geniuses in mathematics, Carnatic music, Bharata Natyam, civil service, architecture, sculpture, wit, wisdom, Sanskrit grammar and Tamil eloquence.

—Mr R. K. Narayan writing on 'Pride of Place' in "The Illustrated Weekly of India".

I am told, on reliable authority, that certain postal officials in large cities have evolved a system by which copies of attractive journals are filched in strict rotation, say, one in every six copies, so as to spread the resulting 'loss' thinly and evenly among the subscribers.

—A columnist in "The Economic Times".

The move to rename Durgapur after Dr B. C. Roy is a happy gesture. But why the hackneyed form 'Bidhan' Nagar? Can we not call it simply 'Bidhan' on the analogy of Washington in the U. S. A?...

—A letter in "The Statesman".

and rural development. There is of course a movement from villages to towns. It tends to be frequently the movement of people who have acquired some skill and education. This is because our rural areas are still developing very much on the older pattern. We certainly have to raise the level of agriculture. We have to prevent the gap between urban wages and rural wages from growing. But something more is needed. The whole pattern of industrial development has to be focussed as much towards the right locations as towards dispersal and diffusion of activity. This is how we should approach this problem.

Prof Srinivas: I am more troubled by the disparities in incomes which exist today especially in the rural areas. I fear that the effect of our development programmes has been to enable the rich landowner to get richer and often at the expense of poor sections of the rural population. I hope I am wrong in this again.

Tarlok Singh: I do wonder if you are right. After all there is some redistribution of land, not as much as was hoped for. More of it is coming. The middle peasant is probably raising his production quite rapidly. The larger owner does not have in the changing countryside today the place he had before. The present cultivators, the tenants, are coming up and one of the programmes we put forward is that all tenants should become owners of the land they cultivate. As for agricultural labour, that is another problem. I doubt if in the rural areas disparities are widening very considerably on account of land alone. What may be happening is that the more prosperous peasant is turning to activities other than agriculture, in addition to agriculture. To that extent, he may also be bringing certain elements of a diversified economy into rural areas.

Prof Srinivas: I agree here. The point I was making was that the rural landowner now sees that there is not much of the future in acquiring land which he used to do in the past. So, he is investing in buses, lorries, rice and flour mills and so on; and he is able to get licences because he is a middle-man for the urban politician. And the urban politician, if he wants to work the rural vote, has to operate to these people whom I call vote-banks. Each of these rural land-

owners has 100 or 200 votes at his disposal and he bargains this for undoubted economic advantages.

Tarlok Singh: I am sure the theory which you advanced deserves investigation.

Ramesh Thapar: There is a Committee now investigating. Will it go into the question of inequalities in the agrarian areas?

Tarlok Singh: Yes. What this Committee, which has a number of economists on it, is doing is (i) to establish facts about the changes that have occurred in the distribution of income in the past few years, and (ii) to assess how far the measures of social security and social services generally have countered the tendency which you find under conditions of economic development for some people to push ahead as compared to others.

Prof Srinivas: The point is that we know something about what goes on in the towns. But I doubt very much whether we will be able to find out conclusively what happens in the rural areas. The committees of this sort will find it very difficult. So while your view is there, there is also a sizeable body of opinion which feels as I feel. Now let us get down to this question of inequalities in urban areas where we are on surer ground and there perhaps, Mrs Wasi, you might have something to say.

Muriel Wasi: Well, I am reminded constantly of the Biblical injunction that to him who hath more should be given, and him who hath not, even that what he hath should be taken away. I am not at all convinced that the rich are getting richer or the poor poorer in the urban areas. I take it that we mean here just quite literally an economic poverty and an economic fitness—our incomes or the incomes of the rich increasing out of all proportion to the speed.

Tarlok Singh: The injunction which you quoted is certainly not the motto of our Five Year Plans. Quite the contrary.

Ramesh Thapar: Mr Tarlok Singh, you know the point is that about four lakh people get more than 250 rupees a month after ten years of planning.

Tarlok Singh: Yes. Let us see where we started. The point is this:

there are new opportunities which are coming up in the economy and quite often it is the individual who really has found a place, who is able to seize those opportunities, or it is a larger firm which is able to expand into a new business. This is a reason why many are thinking of taking the whole economy forward. One has to work in both directions. On the one side to see if there are new developments and new opportunities and on the other to see that more of this opportunity is going to the smaller man, to the medium sized firm—and this is the idea underlying the development of village and small industries and behind using taxation and public policies generally as a means of counter-acting certain tendencies which are inherent in almost any growing economy.

Ramesh Thapar: Would you accept that Prof Srinivas?

Prof Srinivas: I suppose, there is always a conflict between growth on the one hand and egalitarian distribution on the other. But my contention is that, if we do not look after the under-dog the whole process of economic growth may be sabotaged by political instability.

Tarlok Singh: I fully agree. I would say only this that there is a real conflict one faces all the time in economic development and you have got to augment your savings and increase the accumulation of the economy. At the same time social justice and the desire to raise the levels of those who lagged behind in the past demands that there should be a different distribution. This problem runs through the whole theme of disparities. By the end of the Fifth Plan, the country would have a total national income about $2\frac{1}{2}$ times the present income. There are imponderables, but my conviction is that in the general lines of development that we have, we certainly have the means for providing justice to backward areas, to backward groups, and, also with the social conscience awakened more than is at present, the means to counteract the tendency towards disparities.

Prof Srinivas: You would then agree with me, Mr Tarlok Singh, that justice is the pre-requisite of economic progress.

Tarlok Singh: Yes, economic progress is essential to social justice and social justice to economic progress.

Yojana seeks to carry the message of the Plan to all sections of the people and to promote a more earnest discussion of problems of social and economic development.

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NEXT FORTNIGHT

ENCOURAGING NEW INVENTORS

M. S. Thacker

THE PLAN AND PRICES

MR Nanda has told Parliament in sure and ringing tones that the Third Plan is going to succeed, and that there will be no pruning of its programmes or paring down of its over-all objectives. His speeches in Lok Sabha and Rajya Sabha have cleared many misapprehensions and enabled the country to have a correct appreciation of the state of the Plan. The Planning Minister has not tried to hide the shortcomings that have arisen in the implementation of the Plan; on the contrary, he has shared his thoughts with the people, and given an indication of the corrective action already taken.

Priorities apart, the success of a Plan depends on finding adequate resources and being prompt in execution. The ability to anticipate and co-ordinate is an essential function as much of the planning process as of implementation. In both these aspects we have been learning from experience.

As regards resources, Mr Nanda has explained the position at length. The Union Government has achieved the required tempo in its effort to increase internal resources, and the performance of the State Governments is also improving. To make the available foreign exchange yield the most beneficial results, a list of priorities in industries has been prepared. An important problem that has now to be faced and collared is the problem of prices.

"Holding the price line" is a phrase that came into popular currency when the shape of the Third Plan was being determined. The Third Plan Report set out at length the need for ensuring stability of prices as well as the methods of achieving the purpose. Official policies in the last few months have been guided by these suggestions. The time has come to set more of them in motion. How urgent the problem is does not need to be specially explained. As Mr V. T. Krishnamachari said in Rajya Sabha, "Whether there is planning or not, no government can allow prices to rise to the detriment of the vulnerable section of the community". We have a Plan, and we have to win through with it. This makes the task of holding the price line doubly vital. Mr Nanda was even more telling when he declared that the time was past when the people could be asked to be content with the explanation that price rises were natural when economic development took place.

In apportioning certain sums of money for certain programmes, the Third Plan Report gave an indication of the volume of returns expected. Because of the rise in the cost of materials, the physical achievements have been smaller than hoped for. Rising prices have also been hampering our export effort. Thus the welfare of our people and the success of the Plan are both imperilled by rising prices.

Through intensive discussions, Government has been formulating a programme of powerful action to regulate the price of basic essential goods. The aim is to safeguard the people with low or fixed incomes and to bring about increases in farm production, industrial output and exports. The main features of the programme are to assure agricultural producers of their requirements, to bring down the costs of many important industrial commodities, to develop a system of distribution which will be acceptable to the people and not be oppressive, and to deal sternly with hoarders and profiteers.

It is a cause and course of action deserving the fullest support of the people.

ALL-ROUND PROGRESS IN FIRST YEAR OF THIRD PLAN

Increased Outlay For Second Year

A BRIEF note on the progress of important programmes of development for 1960-61 and targets for 1962-63 in the sectors of Industry, Transport, Power, Agriculture and Education was presented to Parliament on August 22 by Mr. G. L. Nanda, Minister for Planning.

According to the note, the Plan outlay during 1961-62, the first year of the Third Plan, amounted to Rs 1,148 crore as against Rs 1,071 crore in 1960-61 and Rs 1,011 crore in 1959-60. This represented a step-up of Rs 77 crore as against Rs 60 crore in the preceding year. At the end of each Plan substantial amounts of expenditure on social services etc. are taken as 'committed expenditure' for the next Plan period and are provided for outside the Plan. In this sense, the increase in development outlays in 1961-62 over the preceding year amounted to Rs 217 crore.

During 1962-63 the Plan outlay is being raised by Rs 300 crore.

The distribution of Plan outlay during 1961-62 and 1962-63 as compared to 1960-61 is as follows :

	1960-61	1961-62	1962-63
	(Rs crore)		
Agriculture, Community Development & Co-operation	140	151	192
Irrigation & Flood Control	93	98	125
Power	108	131	165
Industry	219	249	333
Transport & Communications	278	302	349
Social Services	206	203	257
Miscellaneous	27	14	25
Total	1,071	1,148	1,446

INDUSTRIAL PRODUCTION

Industrial production rose during the year by about five per cent. Apart from cotton textiles, jute and sugar industries, in which special conditions prevailed, the rise in industrial production is reckoned at about eight per cent. Where new plants are being established and long gestation periods are involved, the rise from year to year is necessarily uneven as between

different industries. Progress in some key industries is shown below :

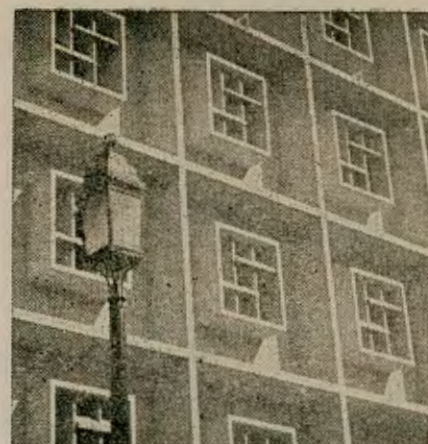
	1960-61	1961-62 estimated	1962-63 projected
	(Million tons)		
Finished steel	2.4	2.9	3.9
Iron ore	10.7	12.1	13.5
Cement	7.8	8.2	9.5
Paper & Paper Board	343.0	362.8	400.0
Coal (metric tonnes)	55.5	55.2	62.0
	(Thousand tons)		
Aluminium	18.2	19.4	38.0
Nitrogenous fertilisers in terms of nitrogen	97.1	140.0	203.0
Phosphatic fertilisers	53.0	61.9	90.0
Sulphuric acid	353.9*	423.0*	523.0
Machine tools (Rs crore)	7.24*	8.50*	10.50

*Calendar year 1961

There was significant increase in installed capacity in several important industries, notably in aluminium, industrial machinery, machine tools, electrical equipment, fertilisers, heavy chemicals and cement. Several new products were manufactured for the first time in the country. Among them were hydraulic presses, gear cutting machines, time-pieces, watches, radio valves, compressors (sealed unit), reduction gear units, argon gas, polyvinyl chloride, butyl alcohol, plasticisers and rayon tyre cord.

Construction work on a large number of industrial projects proceeded according to approved schedules. The construction of the three steel plants in the public sector initiated in the Second Plan was virtually completed and preliminary steps in connection with their expansion were initiated. The Heavy Machine Building Project and the Coal Mining Machinery Projects started construction. The expansion of the Hindustan Machine Tools, Bangalore, was completed. The Heavy Electricals Project took up a number of new items for production and stepped up the volume of its manufacturing capacity.

In the private sector, industrial licences were issued covering the entire targeted capacity of a fair number of industries. The number of applications for licences rose



from 3,467 in 1960 to 4,012. Projects which would save or earn foreign exchange were given priority in licensing. A notable development was the expansion of facilities for designing and fabrication.

A series of measures have been taken in recent months to expand transport facilities for the movement of coal. The programme of coal washeries is being pushed forward and, by way of incentive, the price structure for coal has recently been revised. In spite of slightly lower production, actual supply of coal was stepped up by 3 million tons.

TRANSPORT AND POWER

To enable the Railways to expand facilities mainly for the movement of coal, an additional outlay of Rs 120 crore has been approved. A further provision of Rs 25 crore has been accepted for line capacity works for general goods traffic and as an advance measure related to the movement of coal for the early period of the Fourth Plan.

The production of wagons increased to 19,115 from 11,984 in the preceding year. Doublings and conversions were completed on about 422 miles of track and 327 route miles electrified.

As for roads, 70 miles of missing links and five major bridges were constructed. Further, 300 miles of existing highways were improved. The plan for 1962-63 provides for the construction of 70 miles of missing links and ten major bridges and improvement of 400 miles of existing highways. The total addition to road mileage in the country was 4,000 miles and is expected to be 4,500 miles next year.

In the field of power, the installed capacity increased to 6,174 MW (5,595 MW in 1960-61) and it generated 22,900 million KW hours of power (20,040 million KW hours in 1960-61). Additional 3,100 towns and villages have been electrified (1,600 in 1960-61). The targets for 1962-63 are 6,881 MW of installed capacity, 25,500 million KW hours of power generation and 3,500 additional towns and villages to be electrified.

During the year, the generation of power thus increased by 13 per cent. Foreign exchange has been arranged for a portion of the power projects included in the Third Plan and the implementation of the power programme is being accelerated. To meet shortages in certain regions, a capacity of 500 MW has been added to the programme.

In spite of bad weather conditions, the production increased considerably for wheat (11.6 million tons), barley (3.1 million

tons), *bajra* (3.5 million tons), oilseeds (6.8 million tons), jute (6.3 million bales) and mesta (1.7 million bales). Rice was almost constant (33.6 million tons), while *jowar* (7.7 million tons), sugarcane (9.7 million tons) and cotton (4.5 million bales) marked a decline.

The total potential created by major and medium irrigation schemes increased from 12.24 million acres in 1960-61 to 13.75 million acres. The target for 1962-63 is 16 million acres. Additional 1.67 million acres benefited by minor irrigation works, the target for 1962-63 being two million acres.

The consumption of nitrogenous fertilisers (in terms of nitrogen) increased to 3 lakh tons from 2 lakh tons in 1960-61. It will increase to 4 lakh tons (N) in 1962-63.

Short and medium term credit advanced by co-operative societies amounted to Rs 256 crore as against Rs 260 crore in 1960-61 and is expected to go up to Rs 300 crore next year.

EDUCATION

During the year, enrolment of students increased to 37.8 million (34.3 million in 1960-61) in primary schools, to 6.9 million (6.3 million in 1960-61) in middle schools and 3.1 million (2.8 million in 1960-61) in secondary schools. The targets for 1962-63 are 41.5 million, 7.6 million and 3.4 million respectively.

Under the scheme of national scholarships for outstanding students for post-matric education, 2,400 awards were made

in 1961-62. In addition, 61,000 scholarships were awarded under the programme of assistance to scheduled castes, scheduled tribes and other backward classes.

On technical side, 108 institutions offered degree courses with an admission capacity of 15,300 students as against 100 institutions with a capacity for 13,860 students in 1960-61. Similarly 210 institutions offered diploma courses with a capacity for 26,450 students (196 institutions with 25,570 students in 1960-61) and craftsmen training was provided for 84,550 trainees in 260 institutions (49,830 trainees in 167 institutions in 1960-61).

The Apprentices Bill 1961 was passed by Parliament and action has been taken to set up Central Apprenticeship Councils and for the implementation of the Act. The four Central Training Institutes for the training of craft instructors were expanded for an admission capacity of 820 as against 530 in 1960-61.

Additional employment opportunities created during the year are estimated at 2 million and are expected to be 2.4 million in 1962-63.

Two new programmes for the expansion of employment opportunities in rural areas have been initiated under the Third Plan. The Rural Works Programme, aiming at fuller utilisation of manpower resources of the rural areas, extends to more than 200 development blocks. It is proposed to be expanded four-fold early next year.

The high-level Rural Industries Planning Committee of the Planning Commission has drawn up a scheme for the intensive development of small industries in rural areas. Initially 46 pilot projects will be introduced (See *Yojana*, Small Industries Special Number, August 5, 1962).

FORTNIGHT IN YOJANA BHAVAN

MR Vishnu Sahay, Member of Planning Commission who has been appointed Governor of Assam, left New Delhi for Shillong on September 2.

MR Tarlok Singh, Additional Secretary, Planning Commission, has been appointed Member of the Commission.

OUT of 35 new proposals for undertaking research on problems of national development, 20 were approved by the Research Programmes Committee at its recent meeting. The proposals had been received from universities and research institutions which receive grants from the Committee for meeting expenses for approved research projects. The proposals covered a wide range of subjects in social sciences such as organisation and public administration, labour problems, problems of social change and welfare, macro-economic aspects of Indian economy, land reforms, rural development and co-operation and problems of regional development.

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WE are all exhorted to work for the creation of a classless society; but I do not know why nobody has so far suggested that we should first of all have classless colleges. The creation of a classless society requires many years of toil and rather reluctant renunciation; but classless colleges we can have tomorrow if the powers-that-be realise that classes and university education are incompatible.

The transition from the secondary school to the college is a thrilling experience for the young student; but imagine his disappointment when on the first day in the college he discovers that apart from the fact that college teachers are called lecturers etc. there is hardly any difference between the high school and the college. He, as before, has to attend classes; he has to take down whatever the teacher says. (I remember one of my teachers who used to preface his lectures with the admonition, "Gentlemen, you must learn to listen to me with your pencils!") And above all, he has to think all the time of examinations.

Perhaps if our studies had not been so appallingly "Exam-oriented" our university education would have been more enjoyable and purposeful. "Hamlet" is a source of innumerable questions rather than a great play... "the advantage is you need not repeat last year's questions!"...and if you know all the laws enunciated by Newton, you can be sure of scoring 100 per cent marks! The lecturer teaches with one eye on the prescribed book and the other on the inviolable calendar promulgated by the department of examinations. We praise Bacon for having taken the whole of knowledge for his province but we are satisfied if our pupils acquire a smattering of a very

The
CHANGES
I would like
to SEE in

University Teaching

Durgesh

limited area of the vast field of knowledge; in fact, we may say that our syllabi are an irrefutable example of synecdoche!

The syllabi are framed in such a way that a particular branch of knowledge can be "covered" in sixty or seventy hours, the students being herded into groups "of not less than sixty-four each." (In an ever-expanding universe, the maximum cannot be specified.)

Since the teachers meet the students in large numbers once a week, personal contact is not possible and therefore we have devised the excellent system of compulsory attendance. One frustrated teacher was always complaining, "The young rascals attend classes all right but it is doubtful if they attend to what you say." What you have to say has already been laid down in the syllabus; so why should the 'young rascals' attend to what you say? Sometimes they caution you when you break the traffic rules. Once when I was lecturing on "The Tempest", I unconsciously began to dilate upon colonialism and one of

my students brought me back to the right track by whispering the sobering words "the character of Caliban". In an English class I had been in danger of straying into fields reserved for the history class.

The class-system does great damage to the personality of the teacher as well as to development of the young student. The teacher merely becomes an intellectual porter. Recently I came across a delightful sentence in a testimonial which a young graduate had wheedled from his professor: "As a teacher, Mr.....may be trusted to *deliver the goods*." The choice of the commercial phrase must have been dictated by many years of teaching experience. I remember the shock that a great teacher gave to his colleagues when he said that lectures had become superfluous after Caxton.

The university teacher's is a hard lot. There is the syllabus the ambitions of which are far beyond the capacities of the students (many of them too young to be sent out without escort) and there is the regular race against time. Therefore the easiest solution is to read all the prescribed books (books are "recommended" to give the appearance of academic respectability to the syllabus), dictate copious notes and never mention a word to the students about the source of all those brilliant aphorisms and illustrations. One of these "dictators" was so proud of his "lectures" that he would tell his students, "If you want a first class, reproduce all that I have said; reproduce half and you will get a second; one-third will get you the minimum. And how many want more than the minimum?"

At present we keep our students so busy that they have no time for any individual effort. It is high time we did something drastic. Since over-teaching has not made much difference, why not try less teaching? Let us reduce the number of lectures. Let us discard time-honoured spoons (which in recent years have become as large as ladles!). Let us give our students more time to browse in the library or meditate under the mango tree. Let us not compel them to attend lectures. Let us leave them absolutely free in the afternoon. Let us treat them as persons who can

(Continued on page 21)



50,000 WORKERS RAISE THE DAM INCH BY

THE Nagarjunasagar dam has now risen to a height of 100 feet in parts. Excavation of canals has been done on 20 miles of the Right Bank Canal and is in progress on 50 miles. Also on the Left Bank Canal excavation has been taken up on 45 miles of which nine miles have been done. The canals are expected to be ready for irrigation by the end of the Third Plan.

At the dam site, 46,000 labourers and 4,000 skilled men work in the peak season for raising the dam inch by inch. Similarly, 70,000 labourers and 6,500 skilled workers are at work on the canals.

Work started in 1955 and Rs 49 crore have been spent so far.

The Nagarjunasagar Project brings a new hope to the scarcity stricken area in the lower Krishna basin in Andhra Pradesh. It envisages to irrigate 35 lakh acres of land, particularly in the districts of Nalgonda and Guntur, and generate power, with an installed capacity of 400,000 kW., for electrification and industrialisation of the area, besides controlling floods in the Krishna. The additional yield of food grains and sugarcane will be 12 lakh tons every year.

The project consists of: (1) a 404-

foot high and 3-mile long dam near Nalgonda creating a reservoir of 100 square miles to store 9.30 million acre feet of water, (2) a power station with eight generators of 50,000 kW each, and (3) a canal system with two main canals 416 miles in length.

The first stage is expected to be completed by 1971 when 20 lakh acres of land will be brought under irrigation. The dam will be 300 feet high from average foundation level and the canals will reach a length of 135 miles on the right and 108 miles on the left. The works will cost Rs 91 crore.



NAGARJUNASAGAR

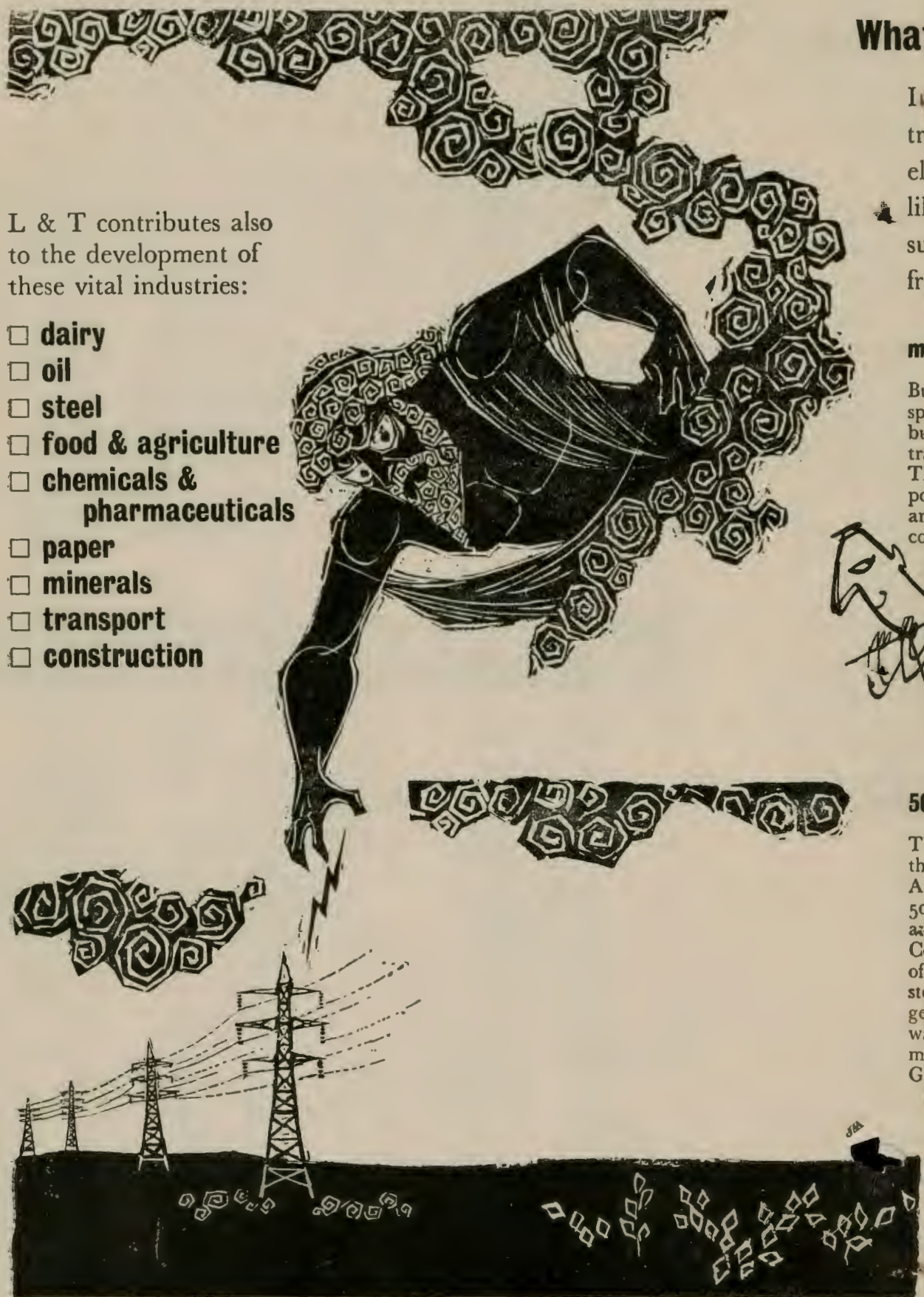


These
photographs
showing
workers busy
at the dam site
were taken
by
R.D. CHOPRA

INCH

L & T contributes also
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- ☐ oil
- ☐ steel
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- ☐ chemicals &
pharmaceuticals
- ☐ paper
- ☐ minerals
- ☐ transport
- ☐ construction



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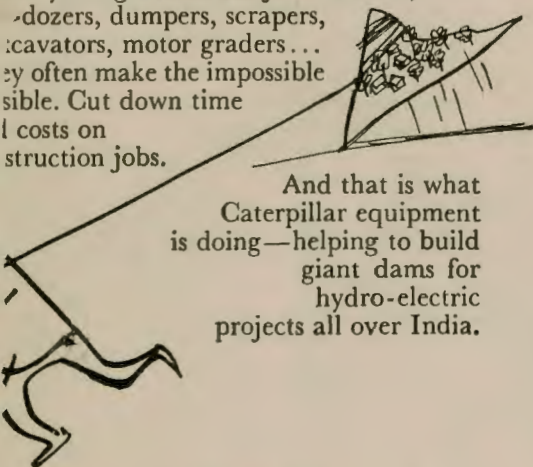
happens when lightning strikes a transmission tower?

Imagine a city with its power supply cut off! No lights, no air conditioning, no electric fans or trams! No factories and mills. No theatres... *That* is what happens, unless electrical systems are adequately protected—by switchgear, control and relay panels, the ones manufactured by Larsen & Toubro. But that is not all! L & T today supplies a wide range of equipment vital to many aspects of the electrical networks—from the generation of power to its control and distribution!

can move mountains...

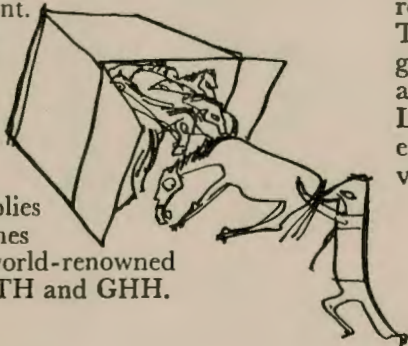
not by faith alone! He needs equipment specially designed for the job: tractors, bulldozers, dumpers, scrapers, excavators, motor graders... they often make the impossible possible. Cut down time and costs on construction jobs.

And that is what Caterpillar equipment is doing—helping to build giant dams for hydro-electric projects all over India.



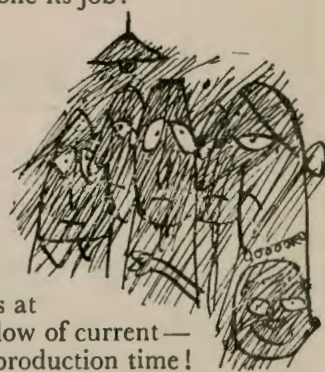
000 horses on the job?

That is right. Not the horses—but the power they represent. A turbine can develop 1000 horsepower—much more! Convert the force of water or steam to drive huge generators. L & T supplies water and steam turbines manufactured by the world-renowned German firms of VOITH and GHH.



next time when the power fails...

Be thankful the fuse has done its job! Prevented an accident in your house, perhaps—or saved costly equipment from damage. And in large factories, switchgear performs the same function. Cuts off power when it must—and protects equipment worth millions of rupees! Ensures at other times an unbroken flow of current—and prevents loss of vital production time!



guardian angel?

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Krishnan works in a small hotel in Bombay. "My wife and two children live in Kerala", he said. "We have a little land there, and I send home a little money every month." Last year floods ravaged his property. His bullocks were washed away. His house was damaged. He *had* to go home to set things right and to save his only possessions from ruin. Money was needed urgently.

"I got the money from the L.I.C.", said Krishnan brightly. He had taken a policy* for Rs. 1,000 in 1941, when he was earning just Rs. 25 a month. The policy matured and he got the money in a lump sum. "Thank God I had the wisdom to take a policy at that time," he said. "If I hadn't, I do not know what I would have done."

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ASPILIC-82

Side Track

To Keep or Sell?

THE owner of a Calcutta curio shop, reports *The Hindu*, has for sale a group of 168 Basohli paintings. He wants one and a half lakh rupees for them.

The Calcutta correspondent of the newspaper goes on to add that several old aristocratic families of Bengal, unable to maintain their art collections, are seeking buyers, Indian or foreign.

To acquire art works is a recognised hobby of western millionaires. Apart from these individuals, richly endowed American museums offer sumptuous prices for rare originals. This fact has encouraged some people to raid ancient temples and steal images. These greedy rascals often sell the head of an image to one buyer and the headless torso to another and thus double their earnings. Government has taken some steps to check this vandalism.

The country's need for exchange as well as some families' need for money might induce some people to argue that there is nothing wrong in letting our bronzes, sculptures and paintings find foreign foster-homes. But that would be short-sighted. Already we have lost enough of our art treasures to foreign countries through conquest and sale. (Someone called the British Museum the greatest collection of stolen goods—and goods from India form a good part of the hoard.) We shouldn't allow further depletion of the stock.

Mirth and Want

A colleague writes:

"After reading Mr V.T. Krishnamachari's remarks in Rajya Sabha about food prices, I was reminded of what I saw in Udupi a few days ago.

"Next to Mathura, the town to be in on Gokul Ashtami is Udupi. This small town in the South Kanara district of Mysore has a thousand-year-old temple with a roof of copper and a tiny two-foot-high image of Krishna. It is also the home of eight different *mathas* or monastic establishments, each with its own *swami*. The great Madhvacharya, proponent of the *Dvaita* school of

philosophy, was born in Udupi, and Chaitanya was a disciple of Madhva's disciple. The main claim to Udupi's fame today, however, is that thousands of Udupi restaurants have been founded by its emigrant sons in the rest of the country. These serve *idlis* and *dosais* and steaming southern coffee. (I don't know if Professor Gode has found that Udupi is the birthplace of the *dosai*.)

"To return to Gokul Ashtami. It is the year's biggest event for the town. You may not find there all the pageantry you are familiar with in the final chapters of *A Passage to India* or the pranks that Bombay boys indulge in on the day. But you will see the devotion of the devout and the merriment of the rest. The tiger dance is danced in Udupi on Gokul Ashtami as it is done elsewhere for Muharram or Dasara. Other groups move about dressed as Krishna, Balarama and their associates.

"Very near Udupi is Malpe, a beautiful little beach. On the eve of Gokul Ashtami I went from Udupi to Malpe. At a turn of the road, suddenly I came upon two



IGNORAMAN

Wants to Know

When we speak of
'Expenditure to the Tune of'
is it to suggest that
he who pays the piper
calls the tune?

queues of people. One consisted of men and boys and the other of women and girls. They were not like town queues where each person tries to maintain something of his aloofness and distinctness. These were more like two frightened centipedes wriggling and restive. Looking up I found that the place they were seeking entry to was a fair price shop.

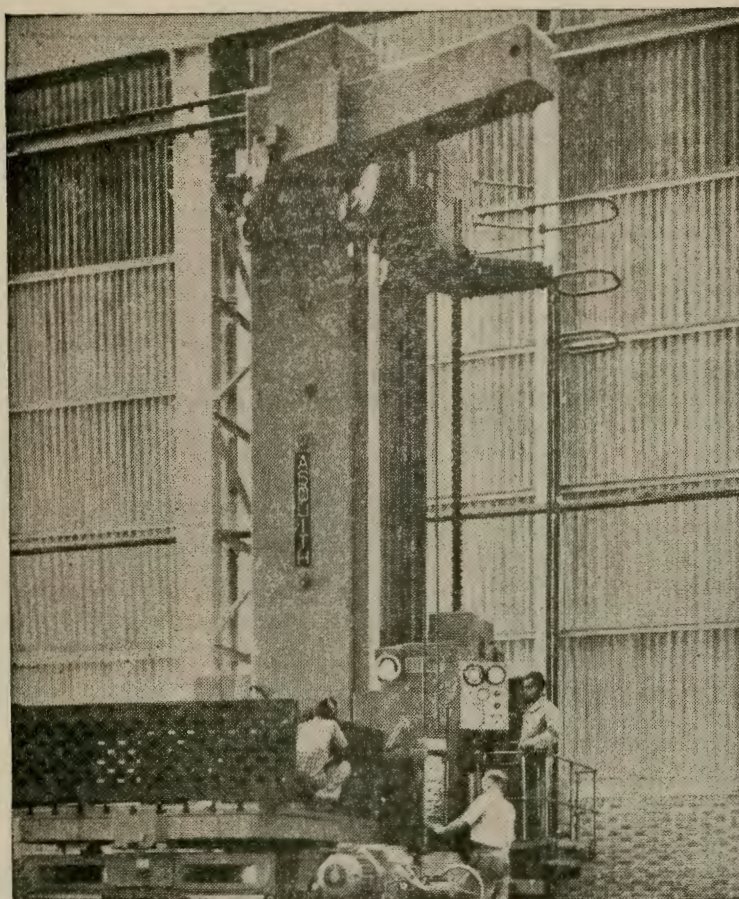
"I did a little bit of professional snooping around. Was this throng due to any scarcity of food grains in the area? Or had the other shops run out of stocks owing to pre-festival purchases? My inquiries showed that the reason for the rush was that the fair price shop offered rice at five or six naye paise less per kilo than the other shops. (—And monsoon is when the shopkeepers on the western coast habitually put up their prices). I also gathered that this was the only governmental shop for miles around. For the sake of a few naye paise these people are ready to walk long distances and to wait for hours".

"Whether there is a Plan or not, Mr Krishnamachari said, no government can allow prices to rise and harm the poor people. Mr Nanda has promised vigorous measures to check any further rise in prices. Fair price shops are the obvious answers. But our post-war experience and what I saw at Udupi should serve to remind us what a stupendous task it is going to be to have enough such shops in the country".

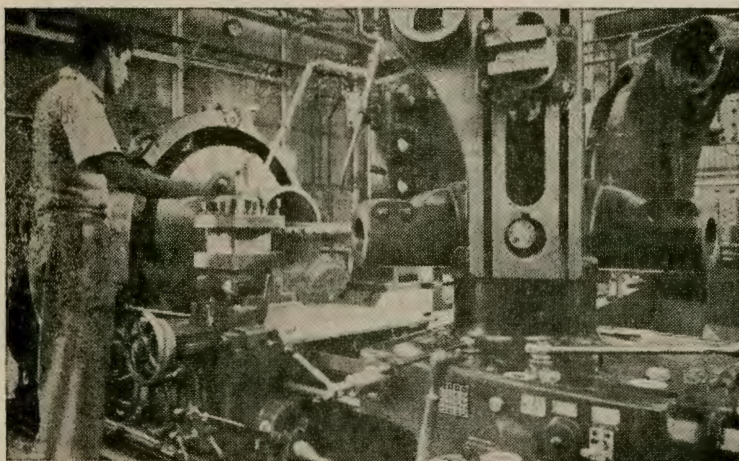
PLAN QUIZ

- Fill in the blanks :
 - The production of automobiles in the country increased from—in 1956 to—in 1961.
 - The production of motor cars will increase from—in 1961 to—in 1966.
 - The production of motor cycles and scooters will increase from—in 1961 to—in 1966.
- What was the amount of premium income of general insurance business in 1960?
- (A) The production of diamonds in 1961 was (a) 1,039 carats, (b) 1,309 carats, (c) 1,903 carats.
- (B) The Third Plan target for annual production of diamonds is: (a) 12,500 carats, (b) 30,000 carats, (c) 90,000 carats.
- How many ships have been built so far by the Hindustan Shipyard at Visakhapatnam?

(Answers on page 23)



6' spindle ram-type horizontal mill and boring machine



No. 14/36 combination turret lathe installed in the AVB light machine shop

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YOJANA



BOOKS

Urban Development

Evaluation Report on Working of Vikas Mandals: Published by the Department of Urban Community Development, Municipal Corporation of Delhi.

ALTHOUGH the proportion of the urban population to the total population has remained fairly stationary in the first two decades of planning in the country, the number of cities with a population of 100,000 or more has increased from 75 in 1951 to more than 115 in 1961. The population of these bigger cities forms more than 43 per cent of the total urban population in the country.

According to the Planning Commission (*Third Plan*, page 688), the maximum efforts will be concentrated in the cities of Calcutta, Bombay, Madras, Delhi, Kanpur and Ahmedabad. In programmes for the rural areas the physical, human and social aspects of development are being tackled through the spread of the community development movement and the Panchayati Raj. Traditionally, communal and functional co-operation continues to exist in the villages and the organisation of common-interest communities to co-operate in the fulfilment of commonly wanted aims is comparatively easier in rural societies than in the urban communities where peoples of diverse interests are thrown together.

A pioneer pilot effort at sizing up the urban problems in development is being made in Delhi for the past four years by the Department of Urban Community Development of the Delhi Municipal Corporation which was established in September 1958 with help from the Ford Foundation. The evaluation study under review deals with the initial period of the department's work in 21 Vikas Mandals (citizens' councils) formed up to June 1960.

The Department worked on the basis of forming one Vikas Mandal for about 1,500 people and one Vikas Parishad (neighbourhood council) for 20,000 people. According to the evaluation study, two

aspects which have been realised as a result of the Vikas Mandal-Parishad formation are: (1) "The Delhi experiment has proved that citizen co-operation in civic improvement programmes can be mobilised effectively through such local associations; (2) The formation of these local associations has provided experience to a large number of residents of all castes and communities, young and old, and people with little or no education." (Two-thirds of a total of 403 executive members of these associations had no leadership experience before.)

In the 21 Vikas Mandals studied, an average of 53 per cent of the resident families have become subscribing members of the mandals. The average income per Vikas Mandal exceeds Rs 1,000 which is broken up into two-thirds of the amount in contributions from the people and the balance educational aid from the department. Eighty-two types of community activities were organised in the Vikas Mandals. Seventy-five per cent of the total of 531 activities counted have been without financial assistance.

Types of Activities

Since these activities can be taken to have been chosen on the basis of each Vikas Mandal community's needs, it is interesting to study the percentage break-up of the various types of activities. Health and sanitation activities accounted for 26.6 per cent of the 531 activities and cultural and recreational for another 26.6 per cent. Or in other words, health, recreation and sanitation are the three fields in which the citizens' hunger is felt most acutely. Physical improvement and basic amenities account for another 22 per cent of the activities.

An analysis of the problems of the areas under the pilot project, on the basis of reports of social workers of the department, gives the following picture of the problems: Of a total of 4,041 problems reported, 54 per cent related to lack of basic amenities.

Forty-eight per cent of the complaints dealt with insanitation, 20.6 per cent with poor housing and 20.3 per cent with lack of recreational facilities.

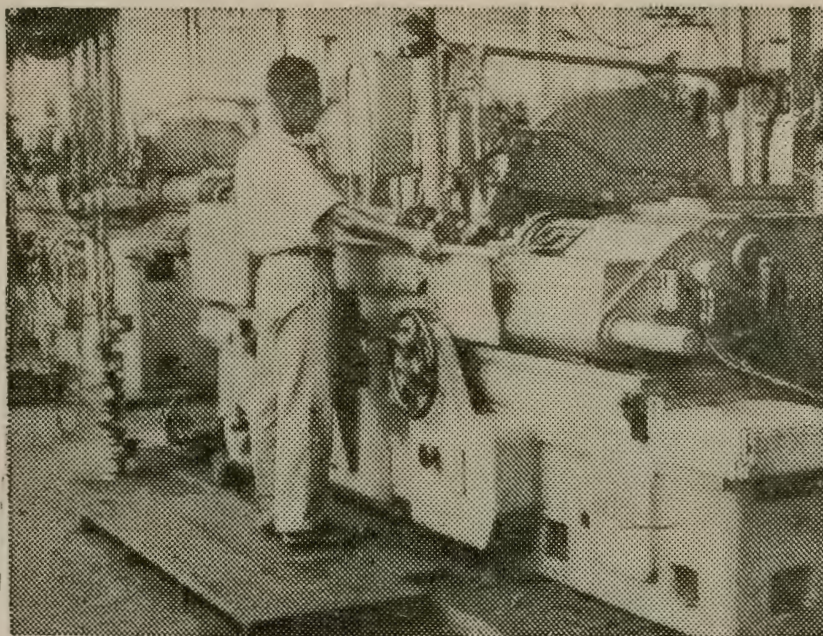
Of the 82 types of activities reported, only six are undertaken widely, that is, in more than 15 Vikas Mandal areas. These are craft classes, milk distribution, recreation programmes, baby shows, immunisation programmes and public health nurses' class. In the health and sanitation fields there were 32 immunisation projects, two medical check-up projects, 18 baby shows and 17 milk distribution projects plus public health nurses' talks. There were 56 environmental sanitation programmes making a total of 141 health and sanitation projects.

A total of 141 social and recreational programmes included 25 sight-seeing trips, 15 picnics, 14 *bal melas* and 11 *kirtan* groups. There were also 13 *bal sabhas*. In the economic programmes numbering 50, the most popular were the twenty sewing classes. This worked out to one each in 20 Vikas Mandals.

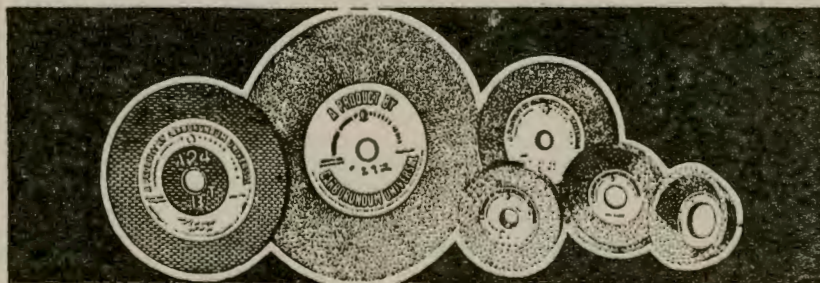
Lacking Human Element

As with the normal pattern of the official agencies' evaluation reports, the report under review also fails to humanise the accomplishments. I would have liked to find among the welter of statistical details and tables some reporting on the human element in the form of case studies which can tell the story of the projects with greater impact. Referring to a matter not directly connected with the evaluation study, the Urban Community Development Department recently ran into heavy weather with the Corporation showing a great reluctance to pick up the tab as the Ford Foundation is withdrawing from the scene. The Ford Foundation consultant left many months ago, and the Foundation is sponsoring a similar project in Ahmedabad. The Delhi Municipal Corporation, after reviewing the work of the department, is reported to have decided to extend the activities to Shahdara. Perhaps a weakness in the project is the heavy cost of personnel which our civic boards cannot afford if the activities are extended to cover large urban areas. A greater utility orientation in the programmes is perhaps called for.

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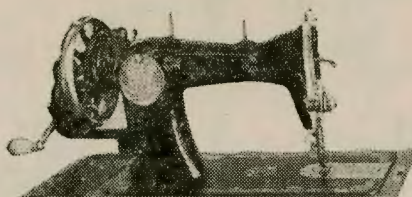
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BUYING A SEWING MACHINE

THERE are a variety of sewing machines in the market today and the selection often creates a problem. Which is the one to be selected—an automatic zigzag or a straight stitch? An open-arm portable or a table model? Or should one go in for a cabinet? Today's machines are well built, attractively styled, varied in price, and as stated, it is more difficult than ever to choose one from the many different types and brands. Here are the characteristics of some well-known types.

Automatic Zigzag Machine: The needle swings side to side to form a 'Z' stitch as well as sews forward and back. It controls patterns and designs by cams or disks, built in, or put on to the machine. Beginners can learn on these machines, but to make full use of the automatic



DON'T GO BY PRICE ALONE

neat work with a professional touch in an easy and quick manner including button holing, you can buy an *automatic zigzag*. Moreover, if you want a machine to serve you for your life time you should have it.

The Best Is What Suits You Best

features means getting the feel of zigzag sewing. It is like changing from a 1949 model car to a 1962 one with its automatic features.

Straight-Stitch: It is a conventional type of sewing machine. The needle moves up and down as material is sewn.

Open-Arm Portable: It has needle bar open to allow socks, trouser legs, and so forth, to slip over. A case or flat piece is usually furnished to form a sewing surface when the arm is not in use. It may be a straight-stitch or a zigzag machine.

Table Model (portable): It refers to any type of machine sold in a carrying case, without a cabinet. Some are light and truly portable. Others are heavy.

WHICH TYPE TO BUY?

A sewing machine is part of your household furniture and in a sense reflects your taste. Therefore buy one which should serve both your taste and need. Here are some tips:

If you like creative or decorative sewing or have to do a lot of it by necessity or, again, if you like to get

it is too big a bargain, you should be suspicious. Almost all the leading brands fall in the same general price range for each type of machine. Even if a salesman demonstrates the working of a machine, be sure to try it yourself. Remember, there is no "best" brand. The best sewing machine is the one that suits you best.

Mrs. J. D. Agrawal

University Teaching

(Continued from page 11)

think for themselves and think on the right lines, with a little guidance now and then.

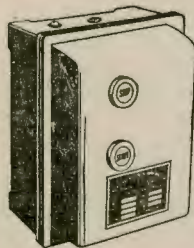
The tutorial system seems to be the only workable compromise between freedom and direction in the field of education. It may raise the cost of education but if we must look for tangible gains in everything we do, then we may point out that investment in youth pays the highest dividends. But the tutorial system can be successful only if the universities take in the right type of students, those who seek not merely the enrichment of pockets but the enrichment of personality as well. And as for the teachers, they must be quite different from the distinguished professor of physics about whom the following story is told. While lecturing on "Matter and Energy", he inadvertently said, "That shows that matter is indestructible", whereupon a student shot up from his seat and asked, "Do you, then, believe that the soul of man is immortal?" The professor angrily retorted "Young man, remember you will be examined in what I teach rather in what I believe".

SWANG COLLIERY

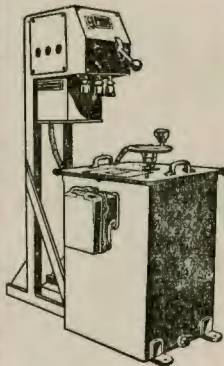
The Swang colliery in the Hazaribagh district of Bihar is to be reorganised and mechanised to increase production and also get at the extractable reserve of 3.2 million tonnes of good quality coking coal which lies deeper.

Estimated to cost about Rs 185 lakh, the reorganisation scheme will yield results by the end of 1964. The annual output will be four lakh tonnes for eight years.

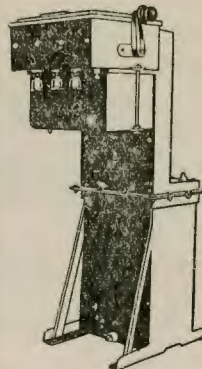
The output will feed the Swang washery which is to be set up in 1965.



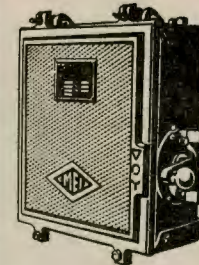
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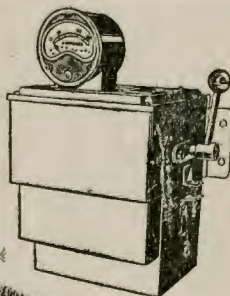


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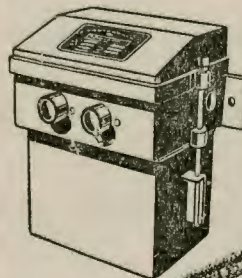


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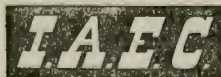
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YOU ASK US

Questions from readers on planning and development will be answered on this page. It might be noted that the purpose of this service is to provide information. Trade queries cannot be entertained.

Agriculture and Planning

QUESTION from Mr N. Venugopalan, Madurai.

Is it a fact that agriculture is proving to be the weak spot of all planned economies — Russian, Chinese and Indian?

ANSWER: It is yet too early to pass any judgment on the experiment with agriculture in the planned economy, particularly of India. The execution of planned development in Russia and China is of a pattern totally different from that of India. Hence, the considerations for the success or failure of planning in any sector in those countries cannot be applied to India. Moreover, the information available about these countries on their economy may not be adequate to justify a judgement on their planning. However, it appears that these countries have some difficulties with their agriculture.

Unlike industries and other sectors, development of agriculture depends not only on financial and human factors but also on natural conditions, such as soil and climatic changes. At times, the best of human efforts are foiled by natural calamities such as drought or floods. This is all the more true in the case of India where agriculture is yet done by the traditional method which is more at the mercy of nature than under the control of human effort. With these considerations in view, the experience of planning of our agriculture during the past eleven years should give no cause for despair.

In our economy, agriculture occupies a place of pivotal importance providing livelihood to about 70 per cent of our population and contributing about 50 per cent of the national income. It provides bulk of the food supplies needed for our teeming millions, raw materials for a number of our industries and products for export so necessary for earning foreign exchange. It is generally recognised that agriculture

holds the key to rapid economic development in our country.

Rightly, therefore, our First Plan accorded priority to programmes of agricultural development. The experience of the Second Plan again highlighted the need and importance of agricultural development.

The basic trend has been upward despite some fluctuations from year to year due to seasonal factors during the past eleven years. During the first two Plans, agricultural output increased by 39 per cent, the average rate of increase being about 2.8 per cent per annum during the First Plan and 3.8 per cent per annum during the Second Plan. The food grains output exceeded the target during the First Plan, while it came very close to the target of 80.5 million tons during the Second Plan.

It is because of the stability imparted to our economy by the rise in agricultural output that it has been possible to step up the tempo of economic development in each of the successive Plans. Encouraged by the past achievement, an increase of 30 per cent in agricultural output has been envisaged under the Third Plan.

THIRD PLAN PROGRAMME

QUESTION from Mr O. Varshneya, Agra.

Is the allocation for agriculture in the Third Plan justified?

ANSWER: In the Third Plan, an outlay of Rs 688 crore is envisaged on programmes under the agricultural sector as compared to Rs 276 crore spent during the Second Plan. Besides, considerably larger allocations have been provided for community development, co-operation and major and medium irrigation programmes.

A basic objective under the Third Plan is to achieve self-sufficiency in food grains and increase agricultural production to meet the requirements of industry and exports. The growth of population, the trend towards larger

incomes and urbanisation, the expanding needs of the industries for agricultural raw materials and the need to increase exports, have made it imperative to raise agricultural production at a rate appreciably higher than during the First and Second Plans. The Third Plan envisages an average rate of increase of 6 per cent per annum in agricultural output as compared to 3.6 per cent per annum achieved during the first two Plans. This calls for a substantial step up in the efforts and the financial resources.

In view of the important place of agriculture in the economic development of the country, it has been recognised in the Third Plan that agricultural efforts should not be impeded in any manner for want of financial or other resources. Accordingly, an assurance has been given that additional resources will be provided as the Plan proceeds, if found necessary for achieving the targets of production.

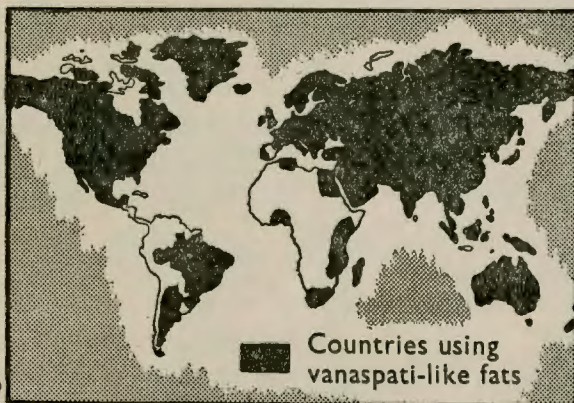
Quiz Answers

- 1.(A) From 32,138 to 53,560 vehicles per year.
(B) From 20,000 to 30,000 cars per year.
(C) From 26,000 to 60,000 motor cycles etc. per year.
2. In 1960, the net premium income of Indian insurers was Rs.18.51 crore (Rs 15 crore in 1959) and that of non-Indian insurers was Rs 7.99 crore. Similarly, the net premium income of Indian insurers outside India amounted to Rs 14.43 crore.
- 3.(A) (b) 1,309 carats.
(B) (c) 90,000 carats.
4. During the ten years up to March 1962, the Hindustan Shipyard, Visakhapatnam, built 27 ocean-going ships, eight small crafts and a moving vessel for the Navy. These include 14 ships of 8,000 tons each, five of 7,000 tons each, two of 6,000 tons each, one of 5,000 tons and one of 95,000 tons. The total tonnage was 4.45 lakh gross tons.

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NUTRITIONISTS recommend a minimum daily consumption of 280 gms. of milk per person for a well-balanced diet. Because milk is a complete food in itself—rich in proteins, minerals, vitamins and fats. For vegetarians, milk is the only source of essential animal proteins. Unfortunately, the total availability of milk for direct consumption, as well as for conversion into milk products is only 140 gms. per head per day. And even by the end of the Third Five Year Plan, it will be just 145 gms.

With improved transport facilities and the establishment of more organised dairies, a greater quantity of milk will be available for drinking.



This will benefit not only the consumer, but also the dairy farmer because the sale of milk as such yields a better price to the dairy farmer than the sale of milk products.

More consumption of milk as such means less ghee. In India, as in the advanced countries of the world, Vanaspati will gradually meet the growing demand for a semi-solid fat like ghee. Even in the butter-rich countries of Denmark and Holland, where the dairy industries are well-organised, the major semi-solid fat consumed is vegetable fat very similar to Vanaspati. Vitaminised Vanaspati is nutritionally on par with the purest milk fat obtainable. Furthermore, Vanaspati is very economical because it is made from readily-available vegetable oils.

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As The Plan Moves

Projects For Total Well-Being Of All Children

A scheme of demonstration projects for child welfare will be introduced in selected Community Development areas on October 2 next. The scheme envisages the integration of all child welfare services to ensure "the total well-being of all children from the date of conception up to the age of 16 years" in the area. A project was started at Chattarpur near Delhi on September 1.

Under the scheme, a community development area will be selected in each State for the project. Priority will be given to preventive services to the normal child. Curative services for the abnormal child will also be provided. Other facilities include maternity welfare, diet supplements,

primary education, mid-day meals, school health, mental health and hygiene, group games, child guidance clinics, vocational training, scouting, dramatic and music clubs, etc.

The project will be administered by the Panchayat Samiti. Different departments of the State Government, dealing with child welfare schemes, will co-ordinate their activities to help the Panchayat Samiti.

The decision to introduce the scheme was taken by the conference of Development Commissioners held by the Union Ministry of Community Development, Co-operation and Panchayati Raj in New Delhi on August 2.

IRRIGATION PLAN FOR BIHAR

The Government of Bihar has drawn up a master plan for providing assured irrigation to 104 lakh acres of land, about half the total cultivable land in the State. The Plan, which is estimated to cost Rs 184 crore, will be executed from year to year according to the availability of resources.

The Planning Commission has approved eleven new medium irrigation schemes for Bihar for the Third Plan period. The schemes will increase the irrigation potential by 6.70 lakh acres of land, thus bringing 28.26 lakh acres of land under irrigation from medium schemes in the State by 1965-66.

FOREIGN EXCHANGE FROM SUGAR

Sugar has now entered our export trade as an exchange earner. During the period January 1 to July 31, 1962, India exported 2.5 lakh tons of sugar mainly to the U.S.A. The State Trading Corporation is to supply one lakh tons of crystal sugar to Canada in 1963.

As a measure of incentive to cane growers, the Government has

adopted a system of linking sugarcane price with the recovery of sugar in the preceding season. The minimum price per maund of sugarcane is Rs. 1.62. The system will be effective in the coming season. Also, the existing formula for sharing sugar price between the cane growers and the sugar producers is to continue for years 1958-59 to 1961-62.

To popularise improved methods of sugarcane cultivation, Indian Central Sugarcane Committee is to introduce shortly a programme of visits of progressive cane growers from the North to the South and vice versa. The yield per acre is about 28 tons in the South and 12 tons in the North. In 1960-61, the crop was grown in 57.34 lakh acre of land and the production was 850.45 lakh tons of sugarcane.

FIFTH AGRICULTURAL UNIVERSITY

The Orissa University of Agriculture has been established at Bhubaneswar. This is the fifth Agricultural University in the country. It will follow "land grant" system of education under which the students and staff mix freely with the farmers and know their problems first-hand.

The University will receive assistance from the University of Missouri (U.S.A.) in the form of staff and technical personnel and training of 40 members of staff and administrative personnel.

BHILAI BREAKS RECORD

The Bhilai Steel Works broke all previous records of monthly production in August when it produced 91,600 tonnes of ingots, 1,01,852 tonnes of pig iron and 93,969 tonnes of blast furnace coke.

MASTER PLAN FOR DANDAKARANYA

A provision of Rs 17.70 crore has been approved by the Central Government for expenditure for the first phase of the Dandakaranya Project. The actual expenditure till the end of May 1962 was Rs 12.81 crore. The budget provision for 1962-63 is Rs 5.05 crore.

The Dandakaranya Development Authority has been asked to draw up a Master Plan.

RS 24 CRORE PLAN AID FROM BRITAIN

AGREEMENTS were signed in New Delhi on September 4 for two more loans totalling Rs 24 crore from the British Government to finance economic development under India's Third Plan.

The first loan of £13 million (Rs 17.3 crore) provides finance for a number of projects including equipment for the Heavy Electrical Plant at Bhopal, a ropeway system and other equipment for the coal-mines and supplies for the River Steamer Companies operating in eastern India.

The second loan of £5 million (Rs 6.7 crore) covers a wide range of essential imports from Britain.

Both the loans are to be repaid over 25 years, including a grace period of seven years before repayment of principal begins.

With these loans, the total British aid for our Third Plan comes to £95 million (Rs 127 crore).



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FARMING NOTES

YOU CAN INCREASE YOUR YIELD BY USING "CAN"

I. C. A. R. Information Service

ONE of the causes of low crop yield in our country is the deficiency of nitrogen in the soils. To make up this deficiency, ammonium sulphate was the first nitrogenous fertiliser introduced and produced in this country. Formerly produced only at Sindri (Bihar), this fertiliser is now being manufactured at Alwaye (Kerala) and Belagola (Mysore).

Ammonium sulphate has enjoyed farmers' confidence for the last 30 years. But this is not the case now. Research and experience have shown that the continued use of this fertiliser causes acidity in the soil which is detrimental to the growth of the crop. Further, owing to the non-availability of sulphur (required in the production of ammonium sulphate) and the consequent dependence on other countries for its supply, production of ammonium sulphate has become all the more costly. Accordingly it was decided to produce some other nitrogenous fertiliser, which could replace ammonium sulphate. Among the new nitrogenous fertilisers which have proved good substitutes are: ammonium sulphate nitrate, urea, ammonium chloride. The latest addition to these is calcium ammonium nitrate (CAN).

At present CAN is being manufactured in an attractive dust-free, easy-flowing granular form, at the Nangal (Punjab) fertiliser factory. Steps are also being taken to produce this fertiliser at Rourkela (Orissa) as well. This fertiliser contains about 20.5 per cent nitrogen, that is, the same quantity as in ammonium sulphate. Half of the nitrogen is in the nitrate form and the other half in the ammonia form. The nitrate

form supplies the nitrogen requirement in the early stages of the crop and the ammonia form, which is absorbed by the soil and which is not leached by rain, is slowly made available to the crop in later stages of growth. This fertiliser is highly useful for acidic soils because it contains about 40 per cent calcium carbonate. The free calcium carbonate not only neutralises acidity but also makes other plant nutrients (such as nitrogen and phosphorous) easily available. CAN also reduces the solubility of iron, copper, zinc, manganese and boron which may be present in the acidic soils above toxic limits. The use of this fertiliser also keeps the soil in good physical condition. An experiment conducted at the Paddy Breeding Station, Coimbatore, showed that with CAN, as high yield can be obtained as with ammonium sulphate.

Drawback Overcome

With all its inherent advantages, CAN has one major shortcoming, that is, when left open for some time, it absorbs moisture. This drawback has now been overcome by using alkathene-lined bags. These bags are moisture-proof and can be stored for any length of time. However, care is to be taken that once the bag is opened, the whole quantity is used in the soil. A bag of 50 kilo contains about 22 lb of nitrogen which is the most conservative dose for many crops. In case the whole quantity is not used immediately, the mouth of the bag should be tied tightly and the fertiliser used as quickly as possible.

Since the exact fertiliser requirements depend on the fertility of soil, the crop variety, the system of soil management and climatic conditions, it is difficult to recommend a course suiting all soils, climates and crop conditions. However, for the sake of illustration, the dose and the methods of application of CAN for some of the crops grown in U.P. are given below for information. For other areas, the requirements for CAN can be worked out on the basis of recommendations given for that particular region.

The usually recommended doses for wheat and barley grown in U.P. are: 45 lb nitrogen and 23 lb P₂O₅ per acre. For applying 45 lb nitrogen per acre, the required quantity of CAN is 225 lb. Half of CAN is applied at the time of sowing and the remaining half one month after sowing—at first irrigation. For rice and cotton grown in U.P., the quantity of CAN required and the method of fertiliser application are the same as for wheat and barley. As regards sugarcane, the generally recommended doses are: 135 lb nitrogen and 67 lb P₂O₅ per acre. For giving a dose of 135 lb nitrogen per acre, 675 lb of CAN is required. Of the 675 lb of CAN so needed, 150 lb is applied at the time of sowing while the remaining 525 lb used in three doses, with an interval of two months.

The nitrogenous fertilisers (and in some cases other kinds of fertilisers) are available with the Primary Co-operative Societies in almost all the States except in Kerala and West Bengal.



A CAN-fed wheat field showing bumper crop



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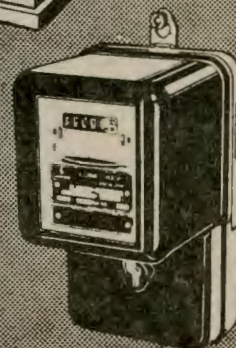
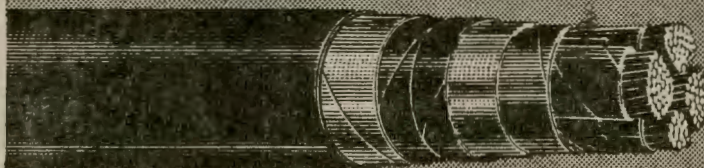
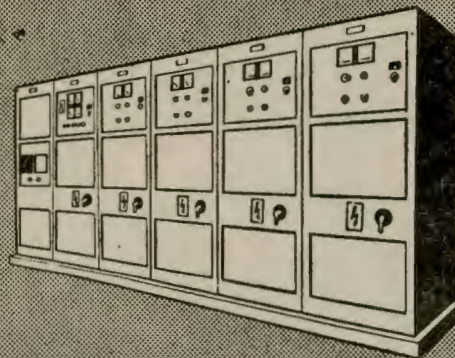
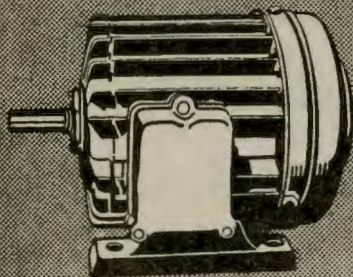
All these Siemens products are backed by over a century's experience in all spheres of electrical engineering.

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POST OFFICE

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RATE OF

INTEREST

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With effect from 1st August, 1962, balances up to Rs. 10,000 (Rs. 20,000 in joint accounts) in Post Office Savings Bank earn a tax-free interest of 3 per cent per annum. Balances in excess of this amount up to Rs. 15,000 (Rs. 30,000 in joint accounts) earn a tax-free interest of $2\frac{1}{2}$ per cent.

Interest on public accounts has also been increased to $2\frac{1}{2}$ per cent.



Open an account at your Post Office

NATIONAL SAVINGS ORGANIZATION

✓
WHEN we think of Divali, one of the first things we recall is the cracker. We know varieties of them, of different loudnesses and colours, used by children and elders at the time of the festival. Although Divali is a month and a half away, crackers and sparklers are right now being made in Sivakasi in Madras State, from where the supplies go to many parts of the country. In fact the factories at Sivakasi work right through the year, since there are other festive occasions, like marriages, when crackers are fired.

In Sivakasi crackers and sparklers are made on a cottage industry basis. Many of the articles required can be and are done at home, by women in particular. The filling of explosives has to be done in factories far away from the habitable area. More than 1,500 people work on it in a factory and 150 varieties of crackers, sparklers, caps and coloured matches (mathapus) are manufactured.

The factory owners as well as the authorities enforce many precautions, especially at the filling-in stage. This last is a job for men, while women do practically everything else.

Pride of Place



Crackers Of Sivakasi

The small cardboard tubes required for crackers are manufactured outside the factory and they are cut to standard sizes. They are closed at one end with mud and dried. Then the ready-mixed explosive powder is filled in carefully and the fuse is inserted. On these attractive papers rich in colour and design are pasted. Red and green coloured papers are used over ordinary crackers. Single crackers are dried in the sun. Then they are woven into strips, normally 100, and these go by the name of bundles. They can be fired as a bundle or can be unwound and fired in singles also. Making these strips is an art in which women excel. Single crackers of big size go by the name "Ottai Vedi".

The fuse on the crackers, which carries the fire to the material inside, is the important thing in a cracker. It is made by dipping lengths of thread in solutions containing explosive materials and then cut into required

TEXT AND PICTURES :
 N. RAMAKRISHNA



Assorted crackers being packed in plastic containers. (Top) Pigtail crackers for being kept in bundles.

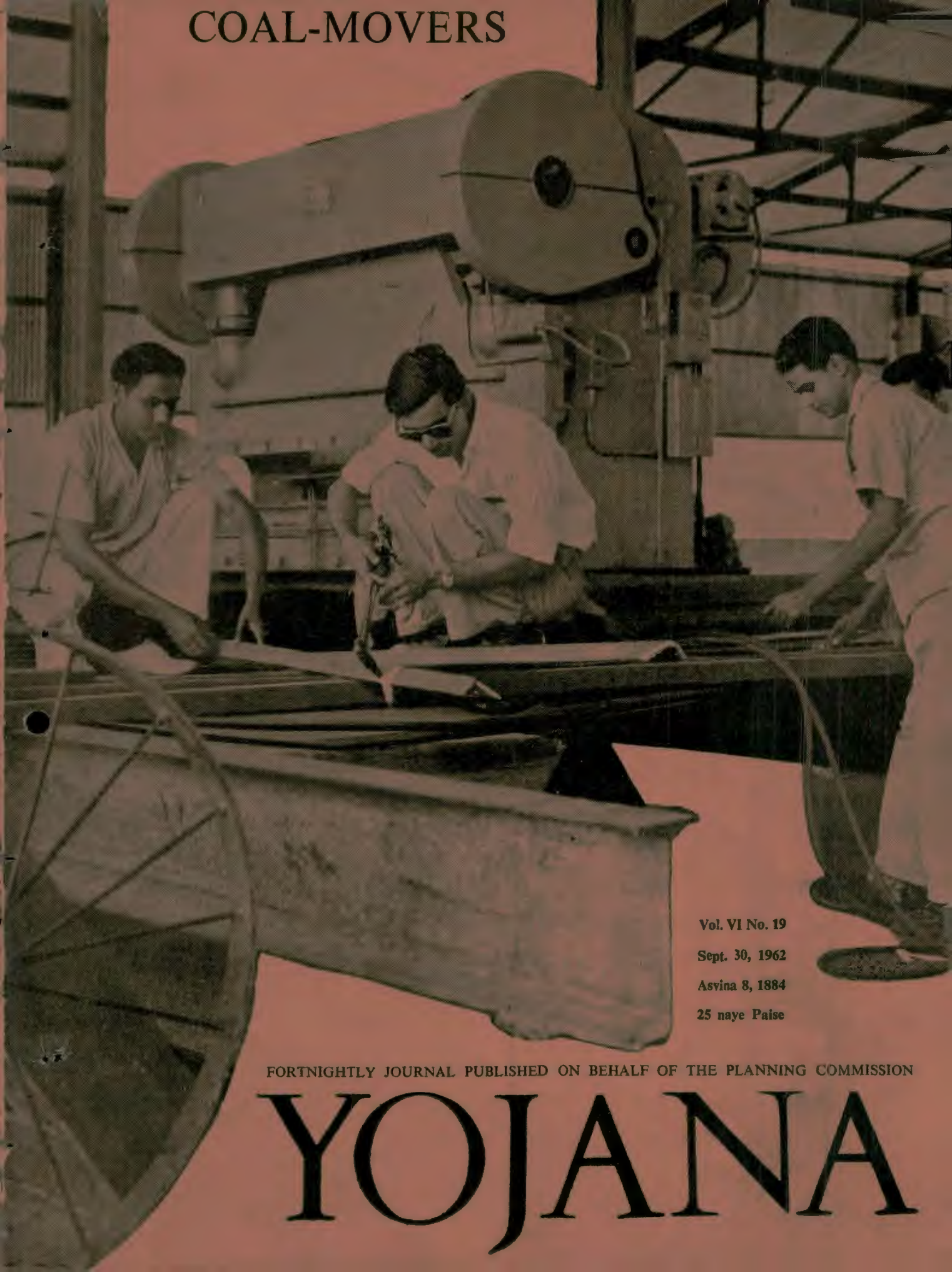
lengths. Over these dried fuse threads paper is pasted nicely.

Charcoal powder, aluminium powder, potassium chlorate and sulphur are the chemicals mainly used in the manufacture of crackers. They are stored and kept in ammunition dumps far away from the factory and brought in only when required.

A side industry is the making of cardboard cartons. This again is a part-time trade for women who can turn the printed cards into boxes. A housewife easily earns a couple of rupees every day by working on these boxes.

BRIGHT SPOT

The Heavy Electricals, Bhopal, has produced its first high voltage 5,000 Kva power transformer. It is fitted with radiator cooling device and weighs 26 metric tonnes.



COAL-MOVERS

Vol. VI No. 19

Sept. 30, 1962

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FORTNIGHTLY JOURNAL PUBLISHED ON BEHALF OF THE PLANNING COMMISSION

YOJANA

Where NCDC's Big Machines Are Made



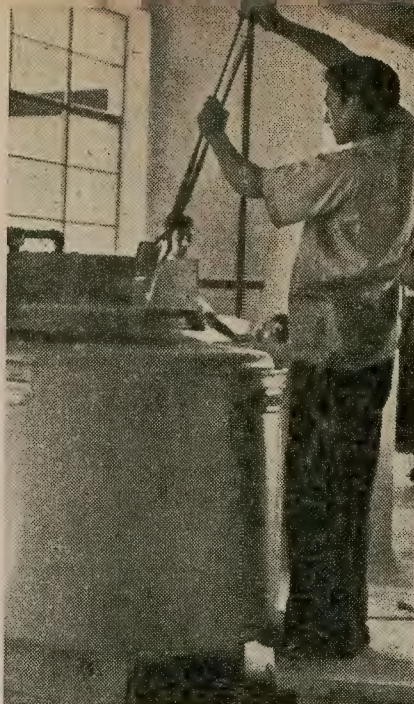
Cover
Engineers
work on
a giant
trailer
made
at the
N.C.D.C.
Central
Workshop

A crane
from a
colliery is
serviced
and over-
hauled

and Repaired

ON April 30, 1961, a giant came to life rolling and roaring through its myriad small and big machines. This is the Central Workshop set up by the National Coal Development Corporation (NCDC) to meet an urgent need for the repairs and manufacture of some coal moving machinery. The workshop is at Barkakana near Ranchi in Bihar.

In fact, the Corporation has a workshop at every colliery for carrying out day-to-day maintenance and repairs. But these small workshops do not have the equipment to undertake repairs and overhaul of big engines and other machinery.



tion. To step up its production by 400 per cent within the short span of the Second Plan period, the Corporation had to mechanise all its mines to the extent possible.

The Central Workshop is a self-contained unit consisting of a big machine shop, a steel fabrication shop, a modern foundry capable of doing all types of grey iron and non-ferrous castings, and a fully equipped smithy with modern heat treatment equipment.

For the manufacture of spare parts and for carrying out various structural works, other sections of the Central Workshop are well equipped. They undertake repairs of electric machines, tractors, shovels, drills, dumpers, etc. Complete rebuilding of diesel engines of 300 horse

COALFIELD MAMMOTHS



Special tools and equipment are required for such major jobs.

Such a centralised workshop was needed for the Plan programmes. Shortage of coal and of transport facilities for coal, it was realised, would hamper the industrial development and would particularly affect the growing steel industry and the programme for the generation of power which hold the key to industrialisa-

A coal trolley manufactured at the steel fabrication workshop. Till recently such trolleys were being imported. Top of page: Many parts of the machines have to be specially hardened through carbon treatment. This is done in this oven

power is also carried out. On an average, 25 engines are rebuilt every month. The engine rebuilding shop is equipped with most modern machine tools besides complete equipment for fuel injection, testing and calibration.

Giant tyres, valued at Rs 50 lakh, are fitted to the heavy earth moving machinery. These require periodical replacement. To save heavy expenditure on replacement a full tyre-retreading plant has been set up in one of the sections of the Workshop. This section retreads 150 tyres a month, besides carrying out usual repairs.

One of the chief programmes of the Central Workshop is the manufacture of spare parts. More than 1,000 different types of spare parts are already under manufacture and more and more complicated and precision parts are being added to the manufacturing programme every month.

The equipment for the Workshop was procured at a very nominal cost from the U.S. Defence Surplus after careful inspection. The Workshop has been designed and constructed departmentally, according to schedule.

A modern colony with all amenities has been constructed for housing all workers and staff.

Photographs by
K. Narayanaswamy

(See also page 22)

3,500 RADIO FARM FORUMS

*Prof. Paul Neurath explains
how they help our villagers
to lead a more Alert Life*

It is clear that village broadcasting has to start with the assumption that listening does not take place in the form of individuals or families enjoying it in the privacy of their homes but in the form of larger groups listening together—groups that gather for this purpose around the community set either in the community assembly room or on the verandah or the open space in front of it. In small villages on a weekday such a group may comprise people not more than a dozen or two, perhaps predominantly children and older people, but on special occasions and in larger villages it may easily amount to several hundred people at a time.

In 1949, experiments were made for the first time to organise community listening in one form or another in the hope that the listening and perhaps also discussion among listeners might lead to their using in their daily work some of the knowledge and suggestions that came over the radio set. The organisation was rather loose. No permanent groups were organised and programmes were not prepared specially for the purpose. The experiment began in 1949 with some 80 listener groups, distributed over several States. Their number grew slowly, but the experiment was not particularly fruitful.

AN EXPERIMENT

In 1956 a new development came about. By that time Canada had established a record of 14 years of successful operation of 'Farm Radio Forums'. It remained to be seen whether the same method could be applied in India and other underdeveloped countries.

The UNESCO suggested such an experiment which, if successful,

might serve as a prototype for the development of the listener groups in other underdeveloped countries as well, especially in South-East Asia. A project was taken up by All India Radio in the spring of 1956 with considerable financial aid from the UNESCO.

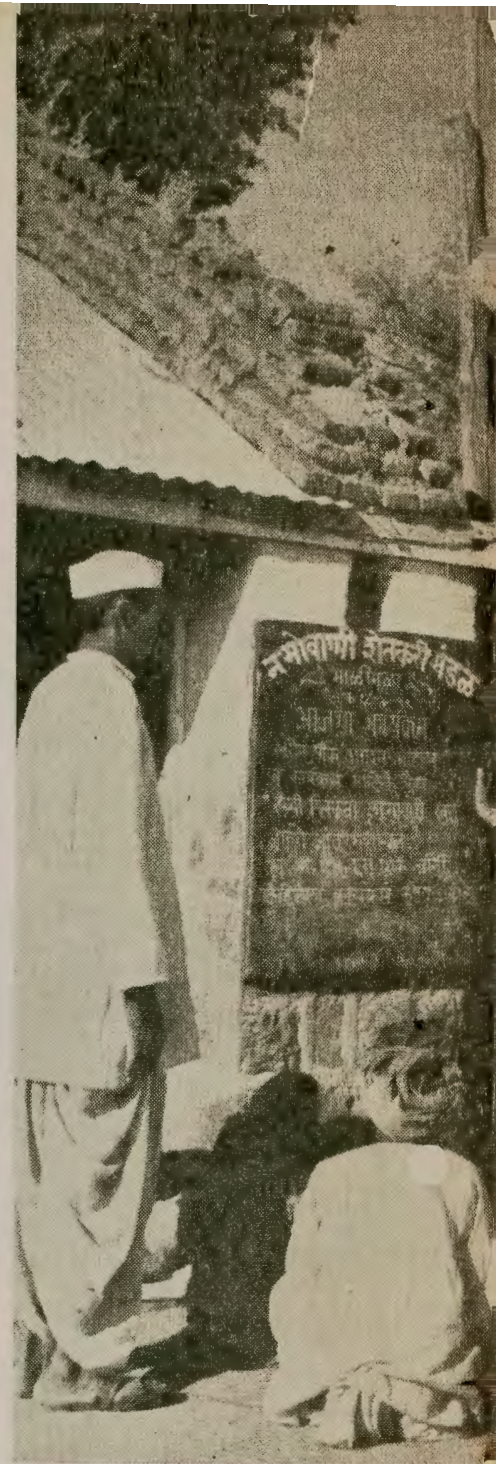
Listener groups of 20 members each were organised in 150 villages around Poona in Maharashtra, spread out over an area of some 100 by 300 miles. All India Radio, Poona, broadcast a series of 20 programmes, two per week, that were specially prepared for these groups, in Marathi. Each group listened together to each programme and then held a discussion on what they had heard. The discussions lasted as long as the participants wanted to have them, usually between half an hour and an hour.

Each Forum had a leader and a secretary. Since the villagers considered the membership of the Forum as an honour, the Sarpanch was generally chosen as the leader and the most respected elders and other villagers were enlisted as members of the Forum. The post of secretary went usually to the secretary of the village Panchayat or to the teacher, because he was charged with the performance of various tasks that involved a knowledge of reading and writing.

The 20 broadcasts offered a rich mixture of topics and methods of presentation, and were well prepared. The programme included lectures, discussions, panel discussions and conversations with peasants from prosperous villages or from villages that had special problems of interest to others as well; in between there were folk songs, religious songs and finally, at the end of each programme, five minutes of answering questions that had been sent in by the villagers.

The topics of the broadcast touched several problems of agricultural and village improvements.

The evaluation of the experiment was entrusted to the Tata Institute of Social Sciences in Bombay.



The whole experiment was conducted by Indians, from the initial planning to the last broadcast. From the UNESCO came only the suggestion and financial aid. The evaluation survey too was planned to be carried out solely by Indians. It was by sheer accident that I happened to be at the Tata Institute and that I happened to be a specialist in social, and particularly, mass communications research, so I was invited to participate in the survey and finally to serve as its head.

The evaluation survey comprised



20 of the 150 villages under the project and, in addition, 20 control villages—of these ten with radio sets but no Farm Forums and the rest without radio sets.

At the end we had an enormous wealth of material at our disposal—3,200 questionnaires answered by the people themselves, hundreds of forms filled in by the interviewers and a good deal of other material. All this was tabulated by hand, which took several months. In order to understand better the answers



A pilot project of Radio Farm Forums was launched in Maharashtra in 1956. Here (left) the members of the Farm Forum are reading the announcement of the day's programme at the Panchayatghar at the village Malimala. Above : Village women also have started taking interest in rural broadcasts. Here is a group of women at the community listening centre at Savalkheda in Madhya Pradesh.

in the questionnaires and the results of our tabulations, we undertook extensive trips to the villages and had discussions with Forum and non-Forum groups.

On the basis of this rather comprehensive material we arrived at a few basic conclusions about the Radio Farm Forum as a medium of transmitting knowledge and also as a new institution in village life.

URGE TO IMPROVE

The Radio Farm Forum can be considered a complete success both as a means for spreading new knowledge in regard to agriculture and general village uplift and as an agent for the stimulation to actual improvements in the villages.

We compared the level of knowledge in regard to the topics of the broadcasts before and after the experiment both for Forum members as well as members of the control groups. We found that the Forum villagers increased their knowledge considerably while in the control villages with radio sets but no Forum, the increase in knowledge was much less. In the control villages without radio sets there was, as anticipated, no change at all.

The comparison was striking between the villages with radio sets and Forums and those with radio sets but without Forums. It established that obviously it was not enough to give a radio set to a village and then leave the village to itself. The real increase in knowledge came only with the regularity in listening to broadcasts and with group discussions. The superiority of the Radio Farm Forum over the previously used methods of transmitting knowledge was thus established.

The Radio Farm Forum had its impact not only as a teaching agent but also as a source of inspiration for village uplift. There were cases where villagers took up development activities as a direct consequence of suggestions made in the broadcasts, while in some other cases, they resulted from the discussions in which many topics other than those referred in the broadcasts used to be brought up by the members. In every Forum village, numerous improvements were introduced during and immediately after the experiment.

The most important thing, however, was the fact that an institution

(Continued on page 18)

SECOND in our series of articles by legislators on the country's administration.

THE DISTRICT OFFICIAL

In Changed Set-up, Public Good Must Be Prime Aim

KAPUR SINGH, M.P.

As every adult citizen of India is aware, the district occupies pivotal position in the governance of the country. It is the nature and quality of the district administration by which the vast majority of citizens judge as to what type of Government the country has. This scheme of things, whereby a district becomes a kind of microcosm of the Central Government of the country, is an ancient administrative tradition in India. As far back as the available evidence can take us, we find that the central ruling authority has always aimed to make itself effective through district administration. In the fragmentary writings of Megasthenes, preserved in the *Indica*, we find some evidence indicative of this pattern of administration. In the indigenous Sanskrit records of the Gupta period, more than five hundred years later, we directly confront the august and awe-inspiring face of the District Magistrate, appropriately called the *Kendrapati*. It is this *Kendrapati* who reappears as the *Nazim* during the Mughal administration, and the District Magistrate-cum-Collector-cum-Deputy Commissioner during the British administration.

The administration at the district level, therefore, is not only the key problem of administration in our country, but it is also the ancient traditional problem of polity of our national aptitudes.

From ancient times, as far as we have the evidence to know it, the basic and fundamental duties of the District Magistrate have related to those of (1) law and order and (2) revenue collection. Throughout the ages these two tasks have remained

the primary concern of the District Officer, and by a faithful, proper and efficient discharge of these two duties it is that district administration has always been judged by the common man. As has already been said, this judgement of the common man is eventually his overall judgement on the quality of the Government of the country as a whole.

After the achievement of Independence, the functions of the State have been amplified and enlarged to include duties and functions which previously lay wholly outside the purview of the State. This has completely transformed the urban and rural face of administration. As the Report on *Indian and State Administrative Services and Problems of District Administration* by V.T. Krishnamachari (August 1962) points out,

“the setting up of democratic institutions at the district and block level, in addition to Panchayats in the villages, was envisaged from the beginning as a necessary and logical step”, in the planned development of the country. (p.33)

The Planning Commission, in a paper placed before the National Development Council in January, 1958, stressed that,

“the foundation of any democratic structure must be democracy in the village. The two institutions which make effective village democracy possible are the village Panchayat and the village co-operative”.

They further went on to say that,

“democratic institutions at the district, block and village levels are parts of one conception. Together they form a connected structure of administration, the different parts of which cannot be visualised in isolation”.

To implement these proposals, vast and complicated legislation has been enacted in the States for establishing Panchayat Raj institutions. These have introduced revolutionary changes in the structure of administration at different levels in the district. This enlargement of the scope of district administration has brought in a variety of administrative and other problems such as were unknown to the predecessors of the District Magistrates of free India. These problems have been summarised as follows in the V.T. Krishnamachari Report (referred to above):

- “(1) preparation and implementation of village agricultural production plans and plans for basic minimum amenities for the village based on full utilisation of manpower and other resources and also on the obligations of beneficiaries in respect of irrigation and soil conservation;
- (2) preparation and implementation of block development plans;
- (3) preparation and implementation of district development plans;
- (4) assisting in the implementation of land reform programmes, assisting the economically weaker sections of the village community, developing co-operatives and rural industries, and developing facilities for education, adult literacy, rural sanitation, etc.” (p. 35)

This presents a picture of responsibilities which is staggering indeed, both in magnitude and the diversity of functions. It is these responsibilities which the district administration, epitomised by a single individual, the District Magistrate, is called upon to discharge to the satisfaction of its master, the entire mass of citizens

concerned. The core of this responsibility still remains the ancient hard core of the functions of the *Kendrapati* and the *Nazim*, namely, that of maintaining law and order, and that of collecting revenues due to the State. The Second Five Year Plan has expressly recognised this fact when stressing the need for creating a well-organised democratic structure of administration within the district, by laying down that:

"the functions of the democratic organisations proposed to be set up would eventually include the entire general administration and development of the area *other than law and order, administration of justice and functions specifically pertaining to revenue administration*". (italics of the writer.)

In this context, what suggestions can be made for the improvement of administration at the district level? The same question might be put in another way: What makes for a good District Officer?

This question is more easily asked than answered. In common estimation a good District Officer is one who succeeds, that is, one who wins the approval and favours of the Government. Another answer is that a good District Officer is one about whom the citizens in general hold a good opinion as a public servant. These two tests are neither identical nor point out to an identical pattern of behaviour or system of administrative ethics. Till almost the first half of the nineteenth century, a civil servant was an agent and instrument of an individual sovereign person. He was a successful civil servant if he succeeded in pleasing his master, and he was a good and just official if he did the right to the people within his primary limitations. Here, too, it was not the same person who answered equally well to both these tasks. During the last one hundred years, a new concept of civil servant has arisen which has transformed him into a public servant. A public servant is one who seeks his remuneration not so much in material rewards, as in inner compensations generated by a sense of satisfaction at duty performed well. He is not a tool of the pleasure of an individual but an instrument of public policy and the rule laid down to implement it. He has his personal dignity in his own right and not merely because of a

reflected sense of power such as he derives from his master. These characteristics and ideals of a modern public servant distinguish him sharply from his ancient ancestor, the Royal servant. He is no longer required to say, as the Persian didactic poet, Sa'adi (thirteenth century), said that "he must affirm the visibility of stars and the moon in the sky if his Royal master asseverated that it is night during daytime." There is a story popularly current in our country that a high civil servant one morning vigorously proclaimed before his Royal master the excellent therapeutic advantages of the *brinjal*, while the same afternoon he scientifically proved that it was wholly inedible. When asked to explain his conversation, this dignitary plausibly answered, "Sire, I am the servant of Your Majesty, and not an employee of the *brinjal*, and this vegetable is what Your Majesty hints it is at a given moment".

This story, to my mind, is very pertinent to the question that we set out to answer a little way back, namely, how the administration at the district level can be improved. He in whom rests the power, for the time being, of running the Government of the country, must not insist on the District Officer to prove the usefulness or otherwise of the *brinjal* to suit the changing moods of his employer.

As long as the District Officers are left free to decide on merits whether *brinjal* is good for the stomach of an individual to whom it is to be administered, or not so good, there is every hope of the emergence of a good and efficient administration in the district, provided further that the initial selection of the individual has been made without favour or malice and on objective merits, and his subsequent training well conducted. The moment, however, it is demanded of a District Officer that he must adjudge the therapeutic qualities of the *brinjal* to suit the whims of Government Ministers, and as soon as the initial selection of a District Officer is made not on merits but through extraneous considerations, and when the subsequent training imparted to him is not well conceived or properly conducted, there cannot arise an efficient, honest and good administration.

This is the crux of the whole problem of administration at the district level.

QUOTATION BOX

Patriotism is not the sole preserve of the Hindi-lovers alone.

—Dr Rajendra Prasad

"Sahibaan, Courtesy Week does not mean free travel, or that you can pass counterfeit coins. The bus is not my property."

—A Delhi Bus conductor quoted in *The Hindustan Times*

Whenever I come to Delhi a sense of overwhelming distress seizes me. There is no fundamental question of theory or even of enduring politics. One has nothing but gossip about succession, interlarded with spicy stories of what the Other Side has been doing in connection with money, women or foreign relations. The worm is eating into Delhi's heart.

Dr Ram Manohar Lohia

I live in this house almost as in a hotel.... I am presented with a bill every month....

—Prime Minister Nehru

It takes 272.2 days on an average for a file to be "processed" in the Mysore Secretariat.... The following breakdown gives an idea as to where the file is likely to get stuck in its long, winding journey:

Stage	Average time in days
1. Registrar	3.2
2. Case Worker	87.2
3. Superintendent	5.1
4. Under Secretary	20.3
5. Deputy Secretary	7.4
6. Secretary	9.9
7. Minister	11.2
8. Other Secretariat departments	27.6
9. Other officer	100.2

These facts have been revealed by a time and motion study undertaken by the Organisation and Methods Section of the Secretariat,

—A report in *The Times of India*.

The distinction between Hindu and Muslim sweets was clearer two centuries back. Today it has disappeared altogether, Jalebi is Hindu in origin, halwa Muslim.

—From a report in *The Hindustan Times*

There is in India a sustained spirit of hope, endeavour and dynamism.

—Mr Morarji Desai speaking to the National Press Club, Washington.

He never looked back...

In 1920, P. K. Chatterjee, a young man just out of school, joined Tata Steel as an apprentice draughtsman.

Full of ambition and zeal to learn, he entered the Company's Technical School which afforded the opportunity to study during leisure. Young Chatterjee was among the first to complete a three-year course in engineering.

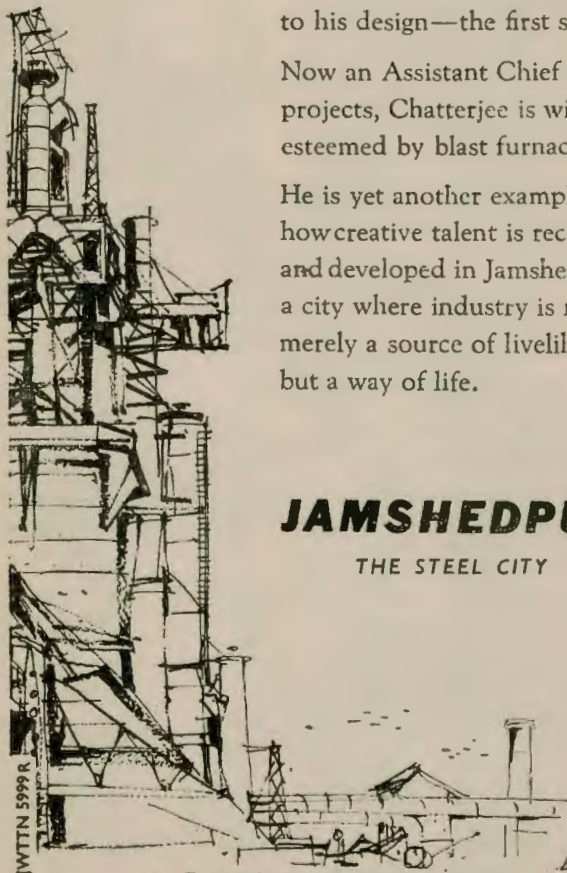
Over the years, Chatterjee has worked his way up in the Engineering Department, and blast furnaces have been his enduring interest. He has helped to rebuild the blast furnaces in the Jamshedpur Works, including a 1,000-ton-a-day blast furnace which was rebuilt to his design—the first such attempt in India.

Now an Assistant Chief Engineer in charge of special projects, Chatterjee is widely travelled and highly esteemed by blast furnace designers all the world over.

He is yet another example of how creative talent is recognised and developed in Jamshedpur, a city where industry is not merely a source of livelihood but a way of life.

JAMSHEDPUR

THE STEEL CITY



JWTTN 5999 R

The Tata Iron and Steel Company Limited



How does an

EXPORT IMPORT BANK

* Promote A Country's Foreign Trade ?

K. S. MEHRA

THE Minister of International Trade, Mr Manubhai Shah, told Rajya Sabha on August 8 that an Import-Export Stabilisation Fund would be established in the country, and that it would have about Rs 10 crore to begin with. The basic idea of the Fund is to provide to the export industries a revolving type of credit so that they can get an uninterrupted flow of raw materials and components. The Minister further announced that some foreign banks and the State Bank of India had been contacted in this connection and their response was good.

The Fund is one of the devices recommended by the Mudaliar Committee on imports and exports. For the operation of this Fund the Mudaliar Committee had suggested the setting up of an autonomous body under the title of 'Export Stabilisation Board'. Though the principle has been accepted by the Government, details are still being worked out and these would be available only after some time.

In this connection it may be interesting to study the working of export-import banks in other countries. Two other countries where export-import banks are functioning effectively are U.S.A. and Japan.

THE U.S. BANK

* The Export-Import Bank of Washington was founded on February 12, 1934, with the capital of \$ 11 million. The capital stock of the Bank today is one billion dollars and the U.S. Congress has granted it authority to borrow \$ 6 billion. Thus it is authorised to have loans and guarantees outstanding at any time

of \$ 7 billion. The object of the Bank as laid down in Export-Import Bank Act of 1945, as amended, is "to aid in financing and to facilitate exports and imports and the exchange of commodities between the United States or any of its territories or insular possessions and any foreign country". It is further provided in the Act that, "the Bank in the exercise of its functions should supplement and encourage and not compete with private capital".

The Export-Import Bank makes four principal types of dollar loans: development loans, exporter credits, commodity loans and emergency loans. Their scope is briefly as follows:

(a) *Development Loans:* These loans are made for the construction of private enterprises and public facilities abroad.

(b) *Exporter Credits:* These are made at the request of U.S. manufacturers to assist firms to complete sales which they cannot finance entirely with their own resources.

(c) *Commodity Loans:* These loans are advanced to assist in marketing of American agricultural commodities abroad.

(d) *Emergency Loans:* On exceptional occasions emergency loans are made to permit the maintenance or resumption of normal private trade with the United States.

Since its beginning 28 years ago, the Export-Import Bank of Washington has used its authority to promote international trade which would improve and strengthen United States markets abroad. As a result, during the period 1934-60, more than \$ 10 billion were authorised by the Bank and made available to foreign borrowers for the financing of U.S. exports. With this amount the Bank has assisted the development of steel mills; iron, copper, nitrate, manganese and uranium mines; electric power installations; fertiliser plants; chemical plants; innumerable types of industrial plants; large-scale irri-

gation projects; highways; ports and public works. The immediate result of these credits has been to provide hundreds and thousands of orders for U.S. industries throughout the country and employment for millions of workers. In addition, these projects have resulted in economic growth abroad which permanently extended U.S. overseas market.

EXPERIENCE IN JAPAN

The other country where an export-import bank is performing a very important role in the country's foreign trade is Japan. The Export-Import Bank of Japan, which was originally called the Export Bank of Japan, was established on December 28, 1950, as an institution to assist in the financing of exports under the Export Bank of Japan Law of that year. The object of the Bank is "to supplement and encourage the financing by ordinary financial institutions of exports and imports and overseas investments, for the purpose of facilitating through financial aid Japan's economic interchange, mainly in the field of trade with foreign countries". The Bank, however, does not compete with private capital but assists or supplements in financing foreign trade and overseas investments of Japan.

The need for such a bank arose out of the necessity to increase Japan's exports in the post-war period. The Japanese have realised that continuous expansion and consolidation of exports is an essential condition for the development of the Japanese economy. Japan's exports consist not only of certain kinds of consumer and semi-consumer goods but capital equipment and heavy machinery helpful to the production needs of other countries.

The Export-Import Bank of Japan also finances imports designed to ensure the prompt supply of raw materials essential for the development of Japanese economy. Financing of overseas investment and

(Continued on page 23)

Yojana seeks to carry the message of the Plan to all sections of the people and to promote a more earnest discussion of problems of social and economic development.

It is issued every fortnight in two separate editions, English and Hindi.

Although published on behalf of the Planning Commission, *Yojana* is in no way restricted to expressing the official point of view.

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NEXT FORTNIGHT

HUMAN ELEMENT

IN PLANNING

Shriman Narayan

*

THE V.T.K. REPORT

*

LABOUR CO-OPS

Figures of Life and Death

A 500-PAGE book released a few days ago will be carefully studied by administrators and scholars for many months to come. It is called "Census of India, Paper No. 1 of 1962—Final Population Totals". Besides giving a great array of figures, it also tells us what conclusions are to be drawn from these figures. In short it is a book which graphically shows what we are up to as a nation.

When the provisional Census figures were released last year soon after the physical counting of heads was completed, we woke up to a realisation of how we had gone beyond expectations in the matter of perpetuating our race. If during Partition seventy million people went away from us to form Pakistan, we made good the loss within ten years!

The increase was well beyond the most generous guesses of experts. Where and how did they go wrong? The present book gives the answer. The experts did not take into account the combined effect of our success against famines, epidemics and endemic diseases. Famines were with us even as late as 1943, the year of the Great Bengal Tragedy. With freedom, and the increase it has brought in governmental responsibility for the welfare of the people, the fear of famine has been banished. Epidemics have been steadily on the retreat since 1918 but more spectacularly after 1948. Plague, cholera and smallpox are not today the terror they were a generation ago.

The most significant development, however, is the conquest of malaria which used to attack and carry away more people than did the other diseases. As a result of all this, the death rate has come down sharply. In the thirty years between 1881 and 1911, there used to be roughly 40 deaths per 1,000 population. Today the rate is down to 18. The number of births per thousand of the population has also gone down—from around 50 in 1900 to about 40 now. But since this fall is far less considerable than the fall in the death rate, the net addition to our numbers is indeed great.

The Census Paper stresses that this addition is not only great *but will grow even more*. The death rate is bound to go down further. However, because of the slight improvement in health and the fact that people are living longer, the birth rate *might increase* rather than dropping below 40 per 1,000. With longer life and fewer diseases, our people are likely to be fertile over a longer period. After a study of all these factors, the Census Paper utters a warning to the nation: that the expectations of the Third Plan as to achieving a stable population soon is still in the nature of a wish.

The Census Paper gives us yet another nudge. It asks us not to congratulate ourselves too glibly on the fact that deaths from disease have dwindled. It urges us to look candidly at the condition of the living. True, we see fewer faces disfigured by smallpox today. True, we might have forced famine to retreat. But we still haven't given our people enough nourishment, or even water that is safe and fit to drink. While outbreaks of cholera are fewer, typhoid, diarrhoea and dysentery are still with us. We have "but won only the spectacular half of the battle, namely reclaiming the population from the jaws of death. But the other, slow, dogged, undramatic half still remains: the battle of nutritional deficiency and vulnerability to disease".

In pointing out the upward swing in population in the area freed from malaria and scarcity, the Census Paper asks: "Is it possible that this area will attain still higher rates of growth before showing a decline?" It is a question applicable to the whole country. It is also a warning that what we are doing by way of family planning is not enough, not enough, not at all enough.

MEASURES TO CONTROL PRICE LEVELS

Wheat and Sugar Stocks Released

THE Planning Commission has issued the following Press Note on the measures proposed by the Government for checking the rising prices:

Mr G.L. Nanda, Union Minister of Planning, made a statement in the Lok Sabha on August 27, 1962, on the subject of price policy. He referred to the recent rise in the prices of a number of agricultural and other commodities and stated that Government was engaged in a thorough study of the implications of these recent trends and would not hesitate to take whatever action might be required for regulating the prices of basic essentials within defined limits, safeguarding the interests of low-income groups including those with fixed incomes, and achieving increase in agricultural and industrial production according to the requirements of the Plan. As Mr Nanda mentioned, the studies undertaken include the production, distribution and trading aspects of the main agricultural commodities and of a limited number of industrial commodities such as cloth for lower income groups, kerosene oil, salt, edible oils, sugar and *gur*, soap, paper, drugs and medicines, infant foods, etc.

The Government has recently considered a preliminary report from the Planning Commission on the subject of price policy. It has been decided that larger quantities of wheat should be released from stocks for fair price shops so as to bring about a decline in prices to about the level of last year in areas in which there has been a tendency for prices to rise. Action along these lines is being taken by the Ministry of Food and Agriculture. It has also been decided that releases of sugar should be so arranged as to maintain prices at the level of the control prices

prior to decontrol and, if possible, a little below that level. With this object, the Ministry of Food and Agriculture has made a special release for areas in which there have been indications of rise in sugar prices. The Ministry is also arranging for releases from stocks on a larger scale to cover the requirements of the next two or three months, during which consumption is likely to rise on account of the Diwali and Puja festivals.

With a view to working out detailed proposals in respect of rice, millets and oilseeds and of industrial commodities which enter into common consumption, the Planning Commission is constituting two separate study groups including representatives from the Ministries of Food and Agriculture, Commerce and Industry, Finance, Community Development and Co-operation, Labour and Employment and Railways. One study group will consider the prices of food and agricultural products and the other will deal with prices of other essential consumer goods. Both groups are expected to submit their first reports early in October.

Since there has been a marked rise in the prices of fruits, vegetables, eggs, and milk, the Ministry of Food and Agriculture is working out proposals for intensifying the present production efforts in respect of these commodities, particularly in the neighbourhood of large towns. The Ministry is also preparing special projects for securing a substantial increase in fish production.

In implementing various measures, co-operative and other consumer stores have an important part to play, specially in urban areas. The Department of Co-operation has

been asked to work out necessary proposals. It is also proposed that consumer stores should be set up for the benefit of their employers by organisations such as public and private industrial enterprises, representative associations and Departments, Corporations and other offices. Among other measures for maintaining prices of essential commodities at reasonable levels are the display of prices by all dealers, widespread publicity, association of local consumer organisations and steps to harness public support, including voluntary organisations, municipal bodies, Panchayats and Panchayat Samities.

Government attaches the utmost importance to measures for ensuring stable and reasonable prices for all commodities of general consumption. In seeking this objective, it is an essential aspect of Government's price policy that the agricultural producer must be assured a reasonable return and his interests fully protected. For the success of any policies that may be adopted, it is important that hoarding, profiteering and speculation should be dealt with as anti-social activities and that the distribution machinery, both wholesale and retail, should be enabled to function in the best interest of the community.

For securing the objectives of price policy the active support and participation of trade, industry and labour, of consumer associations and voluntary organisations throughout the country, and of the Press are vital and necessary conditions. Government, therefore, seeks their fullest co-operation in working out details of the proposals and solving the practical problems involved and in implementing the measures which are decided upon.



ALUMINIUM

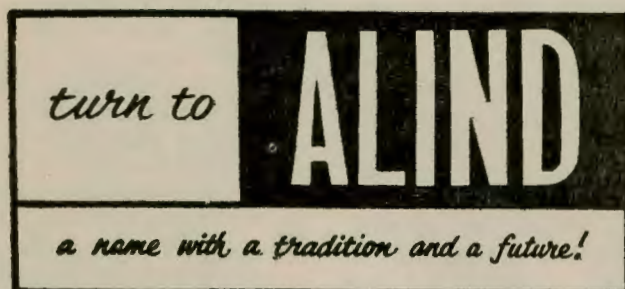
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FORTNIGHT IN YOJANA BHAVAN

A Study Team for Agriculture has been set up by the Committee on Plan Projects (COPP) of the Planning Commission. The Team will carry out pilot studies on selected agricultural schemes. To begin with, it will take up the problems relating to the introduction of improved agricultural implements. The four-member Team consists of Mr A. P. Jain, M. P., Leader and Dr Arjan Singh, Member, Minor Irrigation Team, COPP, Dr G. V. Chalam, Deputy Agricultural Extension Commissioner, Ministry of Food and Agriculture and Mr B. M. Lakshmipathy, retired Joint Director of Agriculture, Madras, members.

Twenty students from the University of Syracuse in U.S.A. came to Yojana Bhavan on September 17 to acquaint themselves with India's Plan and planning machinery. They were addressed by Dr S.R. Sen, Joint Secretary of the Planning Commission. They have come to India under the Graduates Overseas Training Programme and will work in different U.S. Government agencies in India for one year. At present they are attending a three-week course at the Indian Council of Cultural Relations.

Dr A. N. Khosla, till recently Member of the Planning Commission, has been appointed Governor of Orissa.

Dr. D. Swarup took over as Chief of the Industry and Minerals Division on September 17. Until recently he was Principal of the College of Mining and Metallurgy, Banaras Hindu University.

PLAN QUIZ

1. What was the total value of India's imports and exports in 1961-62?
2. Fill in the blanks :
 - A) The total number of trained primary teachers all over the country in 1961 was.....
 - B) The total number of trained primary teachers increased by.....during the ten years since 1951.
 - C) The total number of trained primary teachers will increase to by the end of the Third Plan.
 - D) The percentage of trained teachers in primary schools will be.....by 1965-66.
3. How many radio receiving sets are produced in the country?
4. What does the Coal Mines Provident Fund Scheme do?

(Answers on Page 22)

FOR A GRANDSTAND view of Indian sport, the first prerequisite is that you should be able to stand on your head. And since there aren't many I know outside of Mr Nehru who're ready to go breeches-over-jodhpurs for the suspect pleasures of seeing things as they really are, sport in India, naturally, has lost perspective—and spectator interest.

WHEREAS it is the custom in other countries to select a team first and then name the officials to go with the team, we have one-upped on everyone by selecting the officials first and then looking for the teams that could go with them! Unreasonable? Not at all. That, besides, is the only reasonable thing to do in topsy-turvyland where officials are in excess of athletes and Dr Malthus takes over the show from then on!

WHEREAS it is the practice in other countries for coaches to produce champions, we've updated the *puranic* process in India. Here we employ champions to produce coaches. Illogical? Far from it. Besides, it is the only normal thing to do in a country where, outside of a champion, few can tell a track coach from a railway coach. Particularly when both seem to need a track to keep going....so confusing!

WHEREAS it is an elementary law of science that one must learn to stand before one can walk or run, in India we've long dispensed with this kindergarten approach to sport. Here we try to vault before we are even ready to wake ourselves from the pram. Unnatural? Nonsense.....how else are we going to stage a village-level event if we can't make a start with at least one international horse-opera of a championship or a festival?

One can, in short, go on adding to the list, but we must bow to the printer and the reader's patience. These samplings, at any rate, should more than suffice to establish the fact that sport-appreciation in India isn't a quality given to everyone.....and most certainly not to anyone who can't do a handstand to get his money's worth of perspective from the grandstand!

In the inverted pyramid that is Indian sport, the normal posture is for it to rest on its apex. The most dangerous thing anyone can do is to try and restore it back to its base—or sanity. The chore is fraught with many hazards. In any case, the casualty list on this account so far can please none but a mortician.....

But if, regardless, martyrs continue to offer themselves as live sacrifice for a cause that scarcely merits their energy, the picture, fortunately for topsy-turvydom, doesn't change easily.

The CHANGES I would like to SEE in Sport

REASON: In topsy-turvydom, one accepts or rejects its static rules, but one is never allowed to argue over them.

If one chooses to do it, it can be as rewarding as dictating a coded message in a strange tongue to someone hard of hearing and who, for added comfort, has forgotten to renew his dentures which keep stuttering like a morse key!

The Editor who was rash enough to ask me how I'd like to see Indian sports' never-never land of utopia, I assume, is entitled to an answer. For the price of an aspirin tablet, you can have it too—Just stand on your head!

FACETIOUS? Not quite. Not unless you have something worse than a common headache to fear. Like migraines, for instance...

Even so, you might ask, isn't there at all a cure for the topsy-turvydom?

The neurologists who've been at it for so long, I gather, suggest a lobotomy operation—a kind of brain surgery that produces the same results as a brain-wash! I, of course, wouldn't recommend it. On the brain side, at any rate, we might be guilty of assuming too much...

Horseplay apart, the Editor's question that nags me still is: Have I a cure to prescribe?

Before I run out of notepaper, here's the answer—yes.

The cure? Get the alignment right. That means getting the horse back to where it's supposed to belong—in front of the cart, not behind it.

If sport is for sportsmen, nobody else should be allowed to muzzle in for a free ride. That means the sports officials. In Indian sport today, the word sports official enjoys the same connotation as a dirty word. Sports officials, by and large, are identified as freeloaders. With time on their hands and little else besides, their one insatiable ambition seems usually to finish top-dog in the ritual cannibalism of their endless one-upmanship battles.

Not that we can do without sports officials, but not in the same large doses as we seem to now. And certainly not if it's going to be at the expense of sport and sportsmen.

By VERNON RAM

WHICH brings us to the crux of the matter—sport and sportsmen. Related questions are: Where do we find them and who's to do it?

That isn't exactly an insurmountable problem because long before we had sports officials in India, we had sport—and sportsmen. As to where they came from didn't need a Geiger counter because they came from everywhere—Bradmans from street-corners, soccer champions from sidewalk "stadiums", tennis stars from tenement lots, etc.,... from the big towns and the small villages and from practically every place where sport was looked upon as a source of pure recreation, a healthy outlet for the subdued violence of dormant, explosive selves.

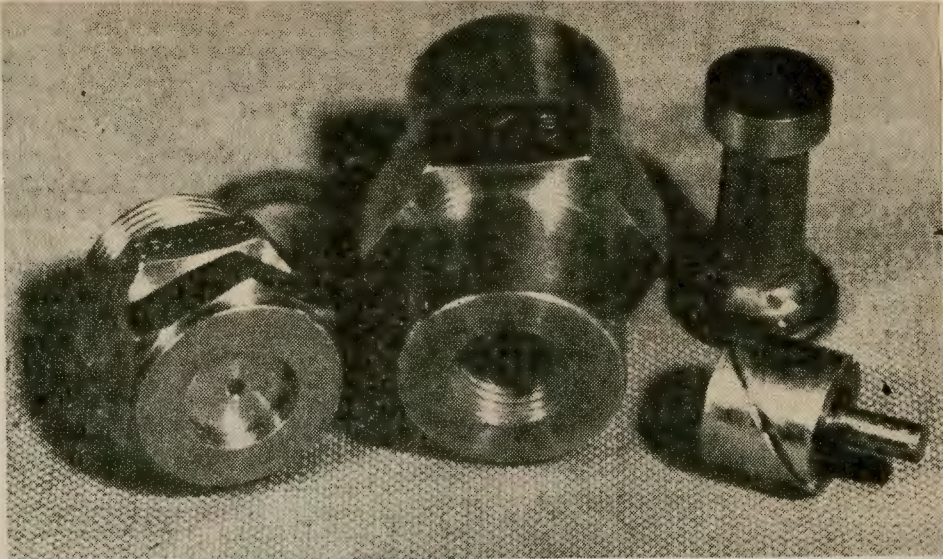
(Continued on page 23)

OUR present civilisation is built on the efforts, great and small, of the countless generations that have gone before us, each generation adding to the heritage of the past. Of the various groups of great benefactors of mankind, inventors occupy a place of pre-eminence. Marconi, Bell, Morse, Watt, Stephenson, Edison and Whipple are a few of the illustrious members of the great galaxy of inventors.

We do not even know the names of many inventors; for example, we do not know who invented the wheel. But for his ingenuity, where would we be today?

When we look back on the history of various nations, we find that the creative genius, the inventive faculty, flourishes in those eras of renaissance, of expansion, when the human spirit, encouraged by the prevailing climate and atmosphere, reaches out boldly for the unknown. In the West, the Renaissance of the sixteenth century, the Industrial Revolution of the early nineteenth century and the Neotechnological Revolution of the early twentieth century are examples of ages when several inventors flourished and contributed their ideas for the betterment of humanity.

Today, in India, we are passing through a period of great expansion and development. We are trying to achieve within a few years, the progress which other nations have taken decades to attain. Our great multi-purpose projects, our big drive towards industrialisation, our endeavour to lift our agriculture from the bonds of age-old practices and customs—these are symptomatic of our efforts to do things in a big way. We have set ourselves what may appear to be ambitious goals in our Five Year Plans, but the appropriate atmosphere has been created for drawing out the capacity of the gifted.



A 'low volume stray nozzle' which won a prize of Rs. 500

We should not imagine that the genius for inventiveness is only born, not made. I share the belief, with Americans, Russians and other advanced nations, that creativity and the resultant spirit of invention therefrom can be cultivated and developed. It is neither the secret nor the preserve of a gifted few.

In some advanced countries methods have been worked out to impart the spirit of creativity and these methods have been incorporated in regular courses of instruction in universities or at institutions run by industry. By attending these courses one can learn to think more creatively, just as one can learn to write, paint or play.

It is recorded that a manufacturing company in U.S.A. held a special course of two years' duration for its engineers. It was observed that the 375 engineers who attended this course took out more patents over a certain period of time than others with the same educational background who did not take it. The establishment of such a course in our country at the appropriate time may be considered.

There are other ways in which inventors can be helped. We must provide a system for locating and classifying information concerning inventions and inventors in other countries of the world. The ready availability of information on

BUDDING Training

devices under development in other countries is of extreme importance, since new approaches of a radical nature involve the gathering of facts from fields widely divergent and fitting these together in ways previously unimagined. This would mean the establishment of a library of inventions wherein technical literature is handy for consultation and reference.

Prof. M. S. Thacker

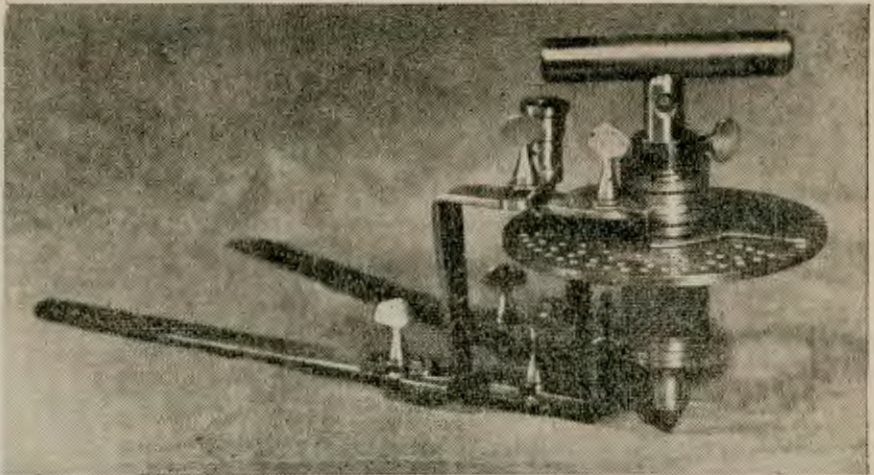
There are some difficulties in giving practical shape to an idea; usually the individual does not have all the facilities necessary for trying out his ideas. For this purpose provision of facilities for making accurate drawings may be necessary. In certain cases even accurate drawings may not be essential since three dimensional models of all new devices can be made from rough sketches.

The models can be made from stiff metal or hardwood; alternatively, plaster and laminated surfaces joined with adhesives may serve the purpose. The production of models may

be carried out by using facilities provided by existing workshops, and special model making workshops may have to be established at certain centres.

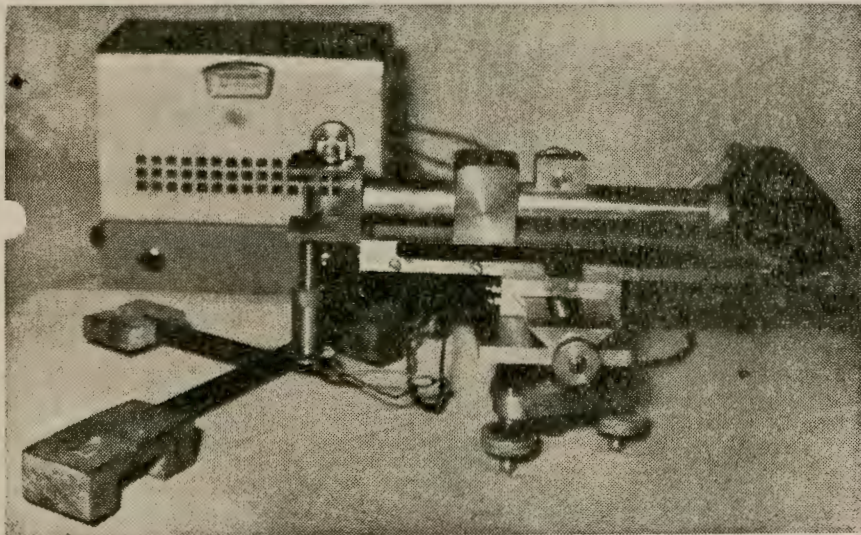
For fostering creativity and the inventive spirit in the country, the Government of India set up the Inventions Promotion Board in 1959. The Board provides financial and technical assistance to inventors to try out their ideas with the help of models and prototypes. The Board also assists them to take out patents.

The Board is also encouraging young inventors by the



A handy instrument for marking centres on structural members. It won a prize of Rs. 50

INVENTORS NEED and Assistance



This is a "slope indicator" which seeks to replace some imported instruments now used for the purpose. It has been tried with success for the measurement of deformation of models. The instrument won a prize of Rs. 1,000

award of prizes. Recently, the Board received 314 applications, out of which 31 have been found suitable for awards. The prize-winning inventions include an azimuth calculator likely to be useful for the defence and meteorological services; standard keyboard for regional languages typewriter,

defence and meteorological services; instruments of various kinds, e.g. slope indicator for measurement of deformation on models, electronic moisture meter, automatic juices amplifier and an instrument for use as an ancillary equipment for marine radar sets.

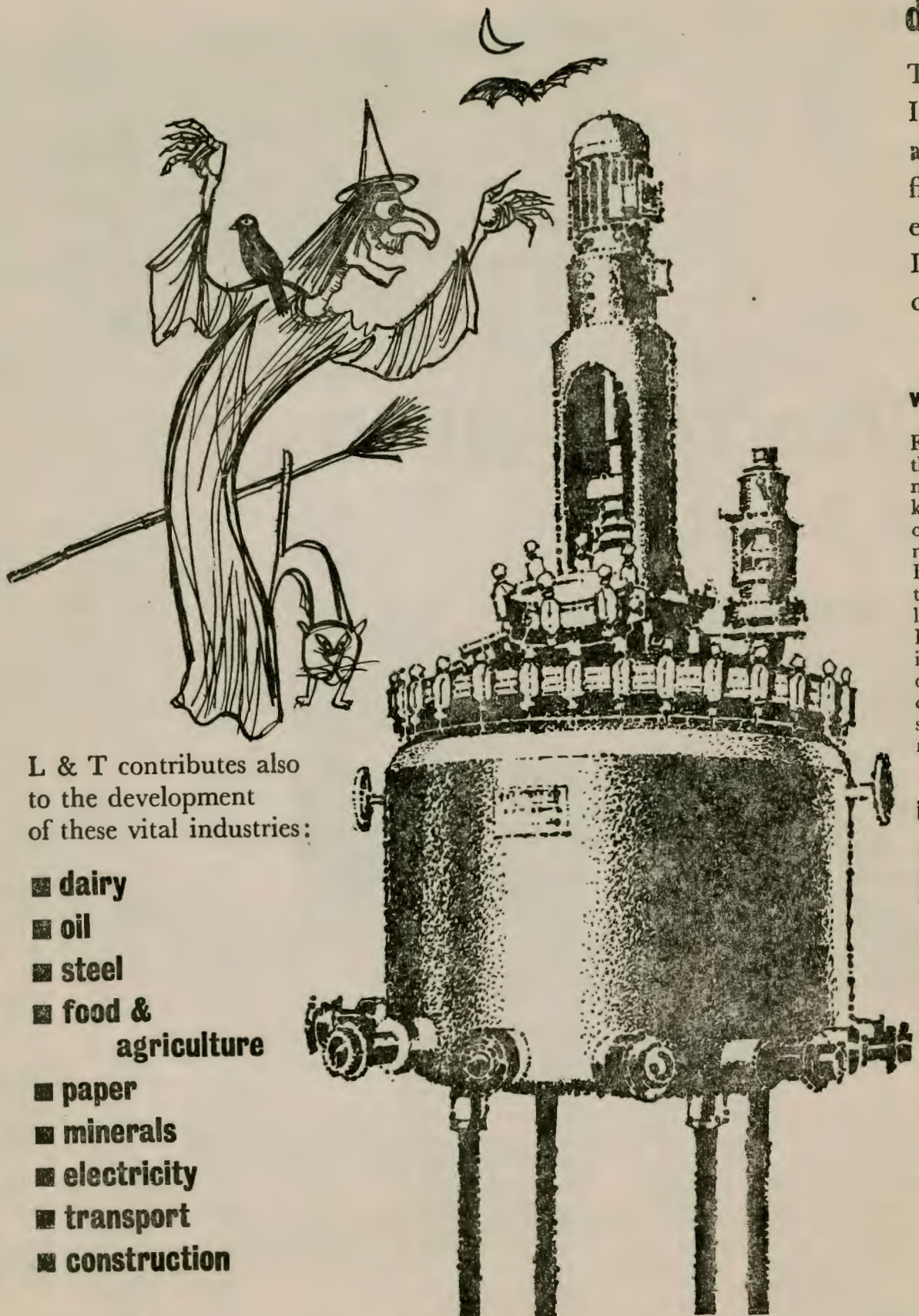
Other inventions are in the

fields of agriculture and food production, textiles and house-building. In this connection, it is worth mentioning that a young Delhi School boy, 15 years old, has won a prize for inventing an electric timer using two alarm time pieces which can be attached to any circuit to act as a time switch. This should serve as an example to youngsters with an inventive bent of mind.

During the first year of its existence, the Board has distributed Rs. 1,15,000 to 90 inventors. The experience of the working of the Board during the last 20 months has shown that there is considerable creative ability in the country, but many of those who possess it, suffer for want of basic knowledge of the principles of science and technology.

It may be expected that with the growth of science and technology in our country there will be great scope for inventive ability to develop and flourish. The Inventions Promotion Board should play a leading role in this development.

(Professor Thacker until recently was Secretary, Union Ministry of Scientific Research and Cultural Affairs, and is president of the Inventions Promotion Board.)



L & T contributes also
to the development
of these vital industries:

- dairy
- oil
- steel
- food &
agriculture
- paper
- minerals
- electricity
- transport
- construction

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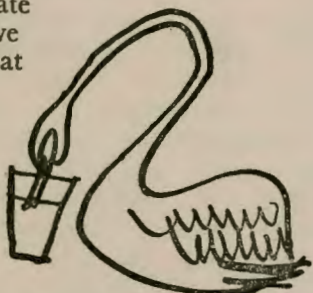
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...double toil and trouble!

is out of it now—so also the magic! Chemistry is no longer a “black art” measure, it today enters everything we see and touch—and eat! Its applications are endless—in the manufacture of chemicals, pharmaceuticals, fertilisers, dyes, plastics, etc. Millions of tons of these are produced annually—and the demand is growing every day. Which means the industry needs more plant and equipment—and that is what L & Toubro manufactures and supplies: complete chemical plants, process equipment, distillation towers, process control instrumentation and Audco valves.

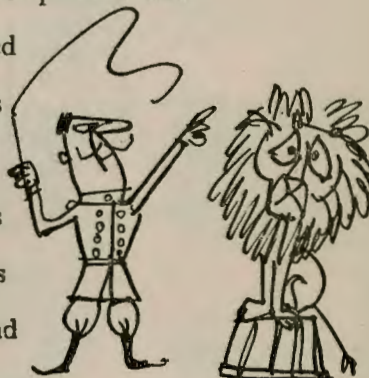
...supply swans!

We don't even believe in the legend that you can separate water! But we have the equipment that L & T makes for them! Distillation columns, heat exchangers, reaction vessels, driers and tanks, from stainless steel, copper and aluminium.



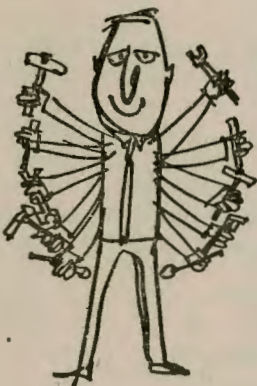
...everything under control?

It has to be. Control is a vital matter in the chemical industry. Temperature and pressure and flow have to be precisely checked and controlled... When dangerous chemicals are involved, the situation can be really explosive! L & T designs and supplies up-to-date on-line and off-line control systems incorporating electronic computers for industrial and chemical processes.



...more than a pair of hands!

It's more than a pair of hands of manpower—plant, equipment, a lot of thinking and engineering—thinking that makes a little to chance, a lot of money for. And the difference is a job done—done well!



...not enough water?

It can be a problem—when the demand is, say, for a million gallons an hour! That is why cooling towers are particularly important to the chemical industry. They make it possible to use the same water over and over again—exactly like a car radiator, only on a much larger scale! L & T designs and constructs cooling towers to meet specific industrial needs.



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Planned Beauty

RIGHT where the road takes a gentle turn to go into the hills, this sign greets the traveller:

SECOND FIVE YEAR PLAN

Beautification Scheme
Around Ajanta Caves

Beautification. What a word! And how different from the simple word beauty which moved the inspired monks and their lay brothers two thousands years ago to scoop out solid rock and carve and paint!

That vision and faith and grace are denied to the engineers of this age. Departmentalists have taken over, as they must. Ajanta, being a money earner, deserves some recompense in return. And what is more sensible than that you should clothe the naked hills with foliage?

Come to think of it, the Forest Department (which looks after the scheme proclaimed on the signboard) hasn't done a bad job. Some of the country's most handsome trees have been planted in large numbers on the flanks of the hills in the vicinity—teak and *kadamba*, *parijata* and Pongamoca (some bearing little name-plates in English and Nagari).

In September, soon after the rains, the young teak trees, which had put out their flowers, looked coy and curious like village girls going to a fair all decked up. The Forest Department, however, has shown less of taste in the garden they have laid out next to the river Waghora at the foot of the curving cliff on which the caves have been cut. Painted bamboo huts and fences reminiscent of small-town flower gardens and the choice of cosmos and periwinkle for the flower-beds don't show an understanding of the ethos of the place. (There is even a cement-concrete urinal!)

The tourist trade has a knack for uglifying beauty spots. Ajanta, luckily, can't be spoiled much. The crescent-shaped canyon does not offer much scope for buildings to be put up and a curve in the hills cuts it off from the gaze of the tea-stall and another building that is nearing completion.

But Ellora does not have the same good fortune. A shabby little cement office erected on a little mound spoils

the magnificence of the Kailasanatha temple. A plaza is being laid out right in front of this famed work of art, robbing it of the element of surprise so essential to its appreciation. On one side of this levelled-out square a couple of ostentatiously modern buildings have just been completed. If someone thinks of neon-lights also, it would be like any gaudy place on earth.

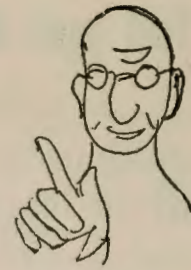
Couldn't a little more imagination have been shown?

AND why hasn't the archaeological office put up in this region the kind of little boards which are to be found at Agra or Delhi and which are excellent examples of conveying much in little space? Even the well-informed visitor can't be carrying with him all the information he knows. And in a hurry to pack snack-boxes most people leave their guide-books behind. Small explanatory panels tucked away in some inconspicuous place near the entrance to the caves would be a great help to those who want to have their moorings right while admiring the art.

ALTHOUGH Ellora, Ajanta and Daulatabad lack such boards, the Bibi-ka-Maqbara in Aurangabad has one, which in a way proves the point argued above. This indicator says that the monument to Aurangzeb's queen was built by her son in 1660, while the guide-books (including the Tourist Department's booklet) say it was built by Aurangzeb himself in 1679. Who is right?

Socialist Journals

RELATIVE to the daily newspapers, our weeklies make a tame show in numbers and circulations—except probably in Tamil. Of late, like the dailies, the weekly journals have also been giving increasing attention to entertainment and titillation. This is a pity, because the weeklies, more than the daily newspapers, are in a position to influence taste and opinion. The daily newspapers, working on a 24-hour ordinance, have too little time for reflection. They have to chase the telling phrase matching the headline,



IGNORAMAN

Wants to Know

Why some doors are marked

PUSH on one side and

PULL on the other ?

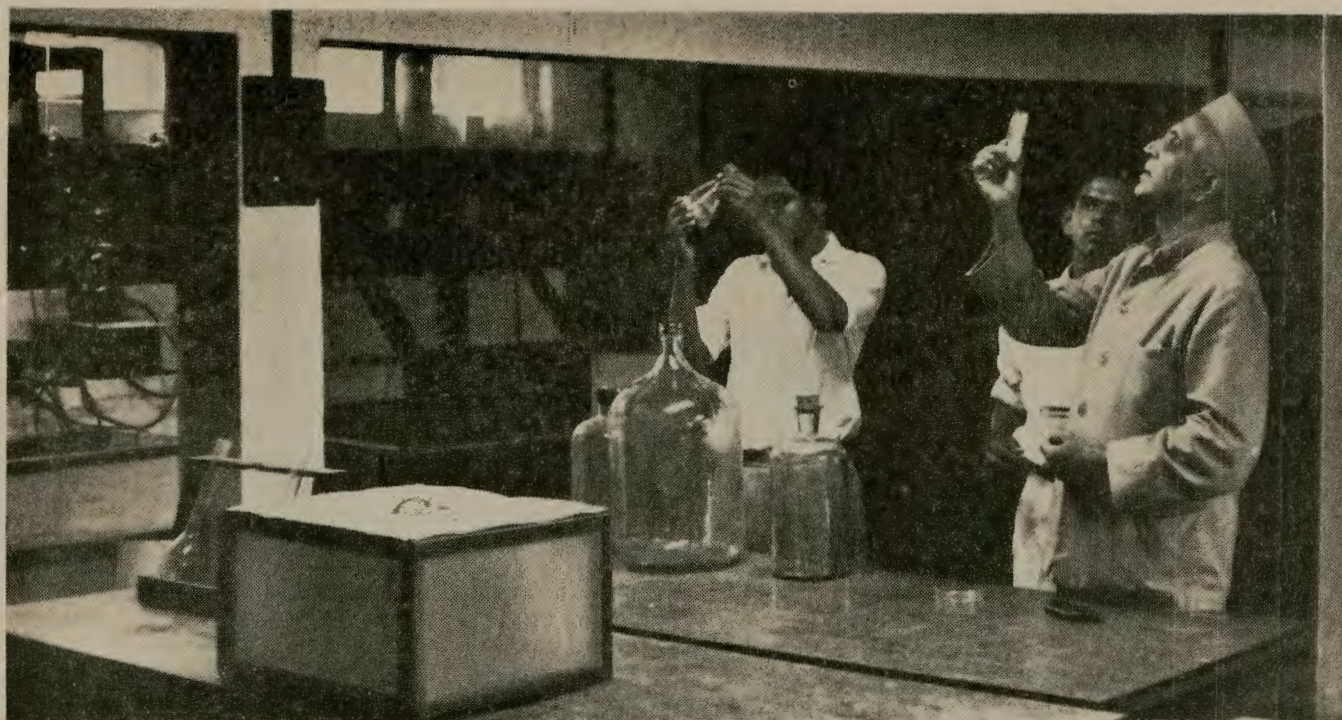
—To show how to GAIN FAVOUR?

while the next day's developments might outdate today's stance. The weeklies, on the contrary, have time for bringing out the meaning of events.

Because of the need for more journals of opinion, we welcome two new publications *Mainstream* and *Congress Forum*, both published from Delhi.

A Dull Place

ONE who returns to Delhi after a longish visit to other metropolitan towns cannot fail to remark how much of a village the capital still is. Not a village in the sense The Hague is said to be Europe's largest village. There it is rural calm; here a lusty disregard of urban conventions. First of all the crowding and grime around the railway stations. Then the dimness of the street lights. To cap it all, the shut shops. In what other city of three million people in the world is shopping brought to a halt almost with sunset? Visitors who arrive after dusk by train, bus or plane have to wait till nine the next morning to buy a forgotten or lost tooth-brush or comb. It is even more of an annoyance to tourists who would want to linger in shops in the cooler hours—and what a loss of income to the city! As for the residents it is a wonder how the housewives put up with this rule. Or is it that the earning Indian male is content to make over the business of spending to his wife?



SCIENTISTS in a BASEMENT

THE basement hall of Poona's Law College houses a laboratory. Here post-graduate students are busy at their microscopes and other scientific apparatus conducting research in various branches of science. The laboratory belongs to the Maharashtra Association for the Cultivation of Science.

The institution which was founded in 1944 has two unique features. A number of scientists and retired professors serve and guide the activities of the Association on an entirely honorary basis. Secondly, post-graduate students pursuing their scientific problems have complete freedom in their research and study.

The Association had its humble beginning with the formation of Maharashtra Science Institute in 1944, which undertook investigations on preparation of activated carbon, cattle dung gas, preservation of dairy products, etc. In 1946 the institute was registered under the new name, Maharashtra Association for the Cultivation of Science, with the following objectives: (1) The promotion of science including its practical application to problems of national welfare; (2) maintaining an institute for scientific research; (3) establishing a science library, and

Youth & Age Team up in Poona

TEXT AND PHOTOGRAPHS

By P. R. SHINDE

(4) disseminating the knowledge of pure and applied science by means of lectures, publications, demonstrations and exhibitions.



During the last 15 years, the Association has fulfilled its objectives. It has to its credit publication of 170 papers on various scientific subjects—botany, cyto-genetics, plant pathology, Entomology, soil science etc. Eighteen post-graduate students who worked in the Association have obtained their Ph. D. degrees. The Association has a valuable collection of rare books on various scientific subjects. This library is considered one of the finest in the country, thanks to the Association's founder member and director late Dr S.P. Agharkar who donated his entire personal collection of books and his private property—a generous gesture to the cause of science.

Under the auspices of the Indian Council of Agricultural Research, the Council of Scientific and Industrial Research and other scientific organisations of the Government of India, the Association has been operating on a number of *ad hoc* research projects.

Currently about 20 post-graduate

(Above): A professor and a student examining cultures in the laboratory. (Left): Another student observing a cytology slide through a microscope.

students are working and preparing their theses for M.Sc., M.Sc (Agr.), and Ph.D. degrees.

The Association is administered through a Council and an executive committee. The director and secretaries look after its day-to-day affairs. The chairman of the executive committee is Dr R.P. Paranjpye. The Association runs on private contributions and grants from the Ministry of Education, Maharashtra State, and the Union Ministry of Scientific Research and Cultural Affairs.

With notable research to its credit, the Association sorely needs a building of its own. Presently while its laboratory and glass house are located at the Law College, its office and library are housed in the premises of Gokhale Institute of Politics and Economics, a distance of nearly a mile. Maybe one day the Association will realise its dream of a building of its own where all its activities could be centralised.

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Radio Farm Forums

(Continued from page 3)

had been created that met twice every week discussing and deciding common problems—a kind of village Parliament that in its mode of operation and functions stood half way between the village council (i.e. Gram Panchayat) and the village assembly (i.e. Gram Sabha). It differed from the village council in that the council operates under certain legal restrictions that circumscribe its jurisdiction; from the village assembly it differed in that the assembly, especially in large villages, is too big a body to discuss the common problems.

Besides, unlike the councils and assemblies, these Forums were neither formally elected, which might easily have made them representatives of the interests of the different voting groups, nor were they appointed, which would have made them some sort of an official institution. They were totally voluntary groups of people interested in discussing their problems, and their discussions took place before all the villagers or at least before all those who wanted to listen. Therefore, every decision they took had the approval and co-

operation of the whole village. Moreover, the presence of the Sarpanch and members of the village Panchayat at the Forum rendered these decisions easily amenable to formal approval by the village council.

From the very beginning the Radio Farm Forum was accepted by most of the villages with great enthusiasm. When I visited the Forums towards the end of the project in 1956 I was often greeted with resolutions asking for the continuance of the Forum, after the closure of the project, as a permanent part of village broadcasting.

Towards the end of 1959, the institution was extended to the whole country. The Minister for Community Development, Mr S.K. Dey, in a speech from AIR, Delhi, opened simultaneously 900 Radio Farm Forums distributed all over the country. (At present their number exceeds 3,500)

ANOTHER MEDIUM

The Radio Forum was a success not only in those specific aspects for which it had originally been started, i.e. the transmission of knowledge

about agricultural and general improvements. It also turned out to be a decisive step in the development of rural broadcasting in India. And since India lives primarily in her villages, it can as much be said that the Radio Farm Forums are a milestone in the development of Indian broadcasting.

In India development keeps going on—it is characteristic of this country that while a new thing is still in the process of being made operational, the country proceeds on to the next.

What was experimented with the Radio listener groups in 1956 and was extended at least in an initial stage all over India in 1959 is today already being undertaken in an experimental manner with the medium of television among the groups of televiewers. Since September 1959, there exists in New Delhi a local experimental television station and now there are 145 teleclubs distributed in New Delhi and in villages in the vicinity. Around each of these sets hundreds of people gather regularly. They watch and listen together and then have discussion about it. Now we shall have to wait and see what impact this new and so much more impressive medium is going to have upon the villages.



BOOKS

INDIAN SHIPPING

A History of Indian Shipping by Dr Radha Kumud Mookerji (Kitab Mahal, Allahabad), Pp 206, Rs 20.

THE significant point in Dr Radha Kumud Mookerji's classic book on the history of Indian shipping, which has now been published in India 50 years after the first edition was published in London by Longmans, is the strong base of tradition and ideal of high achievement it gives to today's heroic efforts in this country to build up a merchant marine adequate to meet the demands of our expanding trade and the needs of strategy. This it does by chronicling in meticulous and authentic detail the maritime endeavour of the Indian people in its several aspects from the time of the Indus Valley Civilisation down to the beginning of the modern times.

For full thirty centuries, Dr Mookerji observes, India stood out as the very heart of the Old World and maintained her position as one of the foremost maritime countries. "She had colonies in Pegu, in Combdia, in Java, in Sumatra, in Borneo and even in the countries of the farther East as far as Japan. She had trading settlements in Southern China, in the Malayan Peninsula, in Arabia, and in all the chief cities of Persia and all over the eastern coast of Africa. Both East and West became the entire theatre of Indian commercial activity and gave scope to her naval energy and throbbing international life". This mighty throb of the many-sided life of the Indian people sounds clearly through every page of Dr Mookerji's vividly written book.

What an amazing variety of ships Indians built and used! There is first the boat in which the Mohenjodaro Indians sailed the Indus, and perhaps the ocean too. Scratched on a potsherd is a simple but virile line sketch of the boat which they used and, this sketch is so boldly and so beautifully conceived that it may very well be used as an insignia of Indian naval achievement. Then

come the 25 or more clearly distinguished classes of ships, riverine as well as ocean-going, with their dimensions of length, breadth and depth specified and the classifications bearing the highly practical but yet beautiful sounding names, such as *Bhima*, *Chapala*, *Garbhara*, *Manthara*, *Lola*, *Dharini*, *Svarnamukhi*, etc., all detailed in that remarkable treatise

and furs, gums, resins and aromatics, oils, drugs, brassware, ivory, perfumes and unguents, sandalwood, camphor, leather and timber, to name only a few. The men who sailed these ships make a fascinating gallery of all sorts and kinds, in describing whom Dr Mookerji appears to take keen delight. There are the inevitable princes and potentates, the Buddhist monks eager to spread knowledge of the Eight-fold Path and adventurous merchants warily calculating their profits. With the conquest of India by a great maritime power and the passing of her entire maritime trade under the sway of that power, coinciding with the harnessing of steam power for propulsion of ships, the disappearance



on ancient Indian shipbuilding, the *Yuktikalpataru*. Ships with masts painted white, ships with prows decorated with the heads of lion, buffalo, serpent, elephant, tiger, parrot, frog and man, ships with cabins in the centre or near the prow, ships largely and stoutly built accommodating full 700 passengers. And then come the descriptions of hundreds of Indian ports teeming with merchants and merchantmen and bursting with cargoes sought after by the whole civilised world of the day. The ships went laden with peacocks, elephants, cattle, the most resplendent cottons, silks manufactured indigenously and imported from China, almost every variety of spice, rare gems noted for their beauty and size, dyestuffs, wool

From Ajanta frescos: Indians settling out to colonise Java

of Indian endeavour in maritime matters was complete. A great glory had departed leaving practically no trace.

How and why did it disappear so thoroughly? It is true that under the heavy shadow of foreign rule no Indian industry could grow to its normal stature; but even so, there were remarkable achievements by Indians during that period in the production of textiles and steel by modern methods. How is it that with great traditions in maritime matters there was no development either of an Indian merchant marine or of shipbuilding worth the name up to the time of Independence? Was it

due to failure of Indians to catch up with the technological progress of the West as is sometimes alleged? Or, were there other factors? These questions are apt to bother readers of Dr Mookerji's book, but it is rather disappointing that little attempt has been made to answer these questions. The book would have also gained much in value if the development of Indian maritime enterprise had been examined in comparison with the maritime enterprises elsewhere in the world of those days, which would have given an international perspective to the Indian story. How did the achievements elsewhere match those in India? How did maritime events or developments in Egypt, Greece, Rome, Persia and China affect and shape Indian shipping? What was Indian shipping's contribution to world shipping? It is hoped that in the next edition of the book, which we trust will come soon, Dr Mookerji will satisfy the inquisitive reader in regard to these questions.

T. S. SANJEEVA RAO

ADMINISTRATION

Public Administration in Theory and Practice, Third edition, 1962, by M.P. Sharma, Kitab Mahal, Pp. 719, Rs. 15.

STUDY of public administration as a discipline and systematic training in it for public officials are a comparatively recent phenomena in India. Independent courses in public administration started in our country only about 20 years back. Perhaps the first such course was set up by the University of Allahabad in 1941 in the form of a post-graduate diploma course in local government administration, and Dr M. P. Sharma was chosen to organise this course, ostensibly because of his good work on Local Government in U.P. for his D. Litt. thesis. In 1949 the University of Nagpur decided to institute a Local Government Diploma Course and invited Dr Sharma for the purpose as a Professor. Next year, at the suggestion of Dr Sharma and largely due to his untiring efforts against strong opposition, a full-fledged Department of Public Administration and Local Self-Government was established leading to an M.A. degree. To the University of Nagpur thus goes the credit for being the first university to set up an M.A. Course in Public Administra-

tion and to Dr Sharma the distinction of being the first Professor to head a chair of public administration.

Prof Sharma thus has been studying and teaching public administration for nearly two decades. It was, therefore, only in the fitness of things for him to give the benefit of this long teaching and study to students of the subject and in 1958 he published his book on *Public Administration in Theory and Practice*. The fact that in a short interval of four years the book has gone through three editions speaks volumes of the popular reception of the book at the hands of the students for whom the book was primarily designed. The second edition was a revised version of the first, and the third is just a reprint. The book has been reviewed both in its first and second editions and, as was to be expected, some reviewers have been critical of the book. One only wishes that the critics had taken note of the long study and painstaking labour involved in the writing of the book.

The book covers most of the important aspects of public administration. The author has made use of all the standard and available material on public administration in writing the book and has presented it in facile and intelligible language. Prof. Sharma has a fine style of writing both in English and Hindi and has written widely on political theory, constitutions, local self-government and public administration.

While the book has a good coverage of western, that is, American and British experience and practice of public administration, the same cannot be said of the Indian background. One would expect more of Indian background in a book on public administration written in India. The book also misses keen awareness of the present managerial crises in India which is the chief problem facing Indian administration. Chapter 14 on Administration at Work fails to bring out the efforts made in India to tone up administration.

The get-up of the third edition is a great improvement on the first both in paper, and print and misprints have been greatly reduced.

A. AVASTHI

BOOKS RECEIVED

Managerial Problems in Public Enterprise by A.H. Hanson (Asia), 148 pages, Rs 9.

Agriculture in the Hill Regions of North India by Padam Singh Jhina, Pages 122, Rs 5; *Fruit Nursery Practices in India* by L. Venkataratnam, Pages 239, Rs 2.25; *Agriculture in South India* by P.A. Venkateswaran, Pages 275, Rs 7.50. All published by the Directorate of Extension, Ministry of Food and Agriculture.

Labour Problems of Textile Industry by G. K. Thakker, Pages 175, Rs 12; *Analytical Study of Value Theory* by Dr Kersi D. Doodha, Pages 168, Rs 8; *India and International Financial Reform* by C. N. Vakil and Kersi D. Doodha, Pages 80, Rs 6. All published by Vora & Co., Bombay.

Nilokheri by S. K. Dey (Asia),

Planning in Morocco by Albert Waterston, Pages 72, \$ 2.50; *Planning in Yugoslavia* by Albert Waterston, Pages 109, \$ 3.00. Both published by Johns Hopkins Press, Maryland.

Educational Finance in India by Atmanand Misra, Pages 616, Rs 35; *Statistical Measurements for Economics and Administration* by Morris Budin, Pages 404, Rs 25. Both published by Asia.

Modern Trends in Purchasing, Store-keeping and Materials Management, edited by A. R. Palit, Pages 100, Rs 7.50. Published by The Eastern Purchasing Journal, New Delhi.

Agricultural Production Manual, Indian Council of Agricultural Research, Pages 169.

A Poet And A Plan by Sugata Dasgupta, Pages 149, Rs 7.50. Published by Thacker Spink & Co., Calcutta.

REPORTS

Statistical Abstract of the Indian Union, 1961, New Series No. 10, Pages 480, Central Statistical Organisation, New Delhi.

Administration Report, 1960-61, Pondicherry State, Pages 54, Chief Commissioner's Office, Pondicherry.

Livestock, Poultry, Agricultural Machinery And Implements in Uttar Pradesh (1961 Census), Pages 84, Economic and Statistical Adviser to the Government of India, Ministry of Food and Agriculture, New Delhi.

The Working of Panchayati Raj in Rajasthan (April 1961 to March 1962), Pages 92, Evaluation Organisation, Government of Rajasthan.

Annual Report of the Registrar of Newspapers for India 1962, Part I, Pages 342, Ministry of Information and Broadcasting, New Delhi.

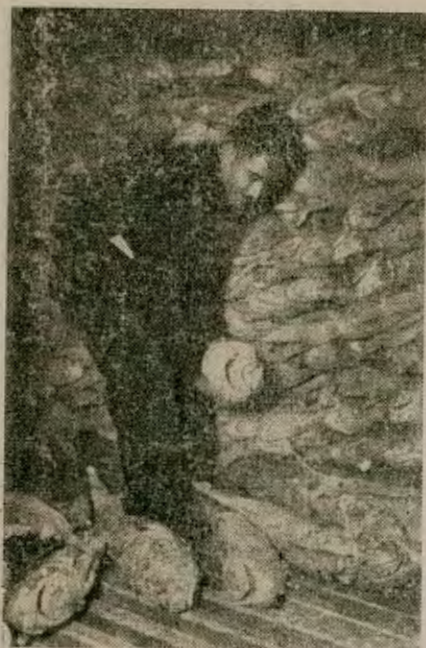
Census of India Paper No. 1 of 1962 (1961 Census), Pages 454, Rs 5.00, Manager of Publications, Delhi.

Report of the Study Team on Nyaya Panchayats, April 1962, Pages 225, Ministry of Law, New Delhi.

Report on Seed Multiplication Schemes (Committee on Plan Projects), Pages 77, Manager of Publications, Delhi.

Evaluation of the Gramsahayak Programme, Pages 144, Programme Evaluation Organisation, Planning Commission, New Delhi.

Report on Indian and State Administrative Services and Problems of District Administration by V. T. Krishnamachari, August 1962, Pages 108, Planning Commission, New Delhi.



Fish being preserved at the cold storage plant at Sasoon Docks in Bombay

To fifty per cent of the people in India, especially in the States of Bengal, Bombay, Orissa, Madras and Kerala, fish is a staple food. Yet only two ounces of fish per head are available per day. On a rough estimate, *per capita* consumption of fish in India is only 3.4 lb.

India produces one million metric tons of fish per year as against 4.4 million tons of annual requirement. Fish and allied industries provide employment for more than a million fishermen. It is estimated that there are 5,00,000 fishermen owning about 85,000 boats, catamarans and other craft. On an average a fisherman's catch in a year does not exceed 2,000 to 2,500 kg whereas in western countries the average catch per fisherman works out roughly to 80,000 kg.

Active interest in the development of fisheries was taken in India in 1944. On the recommendation of a fish sub-committee some technical staff was appointed at the Centre to make a survey and help the then provincial governments in formulating schemes for the development of fisheries with assistance from the Centre. Direct responsibility for fishing in extra-territorial waters was taken up by the Union Government after Independence.

Since 66.6 per cent of fish come from sea annually, deep-sea fishing has been given high priority in the

Mechanised Craft Help to Improve Fishermen's Lot

being to render assistance to under-developed countries including development of fisheries and improving socio-economic conditions of fishermen. Supplementary agreement to expand the activities of the project in other areas in Kerala and also in neighbouring States was signed in November 1961. As a first step in mechanisation a 22-foot long boat was equipped with a 4/5 H.P. semi-diesel engine. Expert instructors trained the fishermen at the centre set up for the purpose. A modern boat building yard was set up and four different designs of boats were evolved. So far about 130 boats of various sizes have been constructed in the yard. About 160 fishermen

DEEP-SEA FISHING



Mechanised boats being built at a centre in Kerala.

Third Plan. Formerly, a fisherman could reach only seven miles from the shore with a catamaran or a country craft. A mechanised boat has now afforded him possibilities to explore and exploit newer areas as well.

A unique experiment was made at Neendakara in Quilon, Kerala. An Indo-Norwegian deep-sea fishing project was started in 1952 on the basis of a tripartite agreement between the United Nations Organisation, Norway and India (Kerala), the object

have been trained in the operation of small-scale mechanised boats. About 120 boats have been issued so far. Fishermen from Kerala, Mysore, Orissa and Andhra Pradesh have also been trained in the operation of larger boats and use of modern fishing methods like trawling. Fishermen using mechanised boats have increased their returns four to five times more than that of the fishermen using local craft. The change-over made a great impact on the fishermen who quickly realised the benefits of mechanisation.

(Continued on page 23)

GOODS WORTH Rs. 16 CRORE

Made in Industrial Estates

As The PLAN Moves

Another Central Workshop for Coal

The National Coal Development Corporation has signed an agreement with the Soviet Trade Organisation for the supply of equipment for the Central Workshop to be set up at Korba in Madhya Pradesh. In addition to the equipment, the Soviet Union will depute two specialists in mechanical and electrical engineering.

The Korba Workshop, the second Central Workshop of the NCDC, will cost Rs. 2 crore. It is designed to carry out overhaul of and major repairs to the mining machinery in the Corporation's collieries in Madhya Pradesh. It will also manufacture spare parts.

Answers to Quiz

- Imports—Rs 1,088 crore (Rs 84 crore less than in the previous year)
Exports—Rs 661.99 crore (Rs 19.67 crore more than in the previous year)
- A) 5,91,500
B) 2,75,376
C) 9,49,500
D) 75 per cent.

- At the end of the Second Plan, there were 20 factories with an installed capacity for 2.79 lakh sets, besides 200 small assembling units with a capacity for 65,000 sets per year. The total production in 1960-61 was 3.20 lakh sets.

The production of low-priced sets (costing Rs 125 or less) is about 50,000 sets per year.

- The Coal Mines Provident Fund Scheme makes provision for the colliery workers in their old age or for their dependents in the event of the workers' premature death. About 4.08 lakh workers in coal producing States subscribe to the scheme. They contribute 6.25 to 8 per cent of their earnings to the Fund. By the end of June 1962, the Fund had accumulated Rs 28.96 crore.

A WIDE range of goods worth more than Rs 16 crore a year are now produced by the 69 industrial estates in different parts of the country. As many as 1,384 factories are functioning in these estates, employing nearly 19,000 persons.

A scheme has been evolved for setting up industrial estates by private agencies including co-operative societies. The starting of functional industrial estates to meet the special requirements of particular industries such as automobile ancillaries, light machine tools, radio components, time pieces, clocks and watches, etc. has also been taken in hand.

The Government is also encouraging estates in the production of ancillary goods required by the large factories. The first estate of this kind has been organised in Bangalore around the Hindustan Machine Tools Factory. The Heavy Electrical Factory at Bhopal has decided to set up a similar ancillary industrial estate and five units of this estate have already begun production.

IDA CREDIT FOR P & T SERVICES

The International Development Association (IDA), an affiliate of the World Bank, has extended a development credit of 42 million dollars (about Rs. 20 crore) to India. The funds will be used by the Posts and Telegraphs Department for buying, during the next two years, equipment abroad to expand and improve telephone and telegraph services.

The expansion programme for telephone network includes increasing the subscriber telephone sets from 461,000 to 761,000, the capacity of the central exchanges from 412,600 to 758,100 lines and the co-axial cables from 494 kilometres to 7,000 kilometres, besides the expansion of telegraph and teleprinter services.

* * *

The Industrial Finance Corporation of India has raised a loan of Rs 6 crore by issuing bonds, to augment its resources.

SNIPPETS

THE second unit of the Koyna power house, having a generating capacity of 60,000 kW., has been commissioned. The first unit was switched on in May last... A high-power team of experts from the various Union Ministries is to be set up to suggest the lines of development in the Dandakaranya project area. The team will be headed by a representative of the Planning Commission... About two lakh post-matriculation scholarships have been awarded during the past five years, involving an expenditure of Rs 7 crore... A West Bengal Co-ordination Committee for the Farakka Barrage has been set up by the Government of India to eliminate bottlenecks or difficulties of a regional nature. ...An agreement has been signed between the Governments of India and the United Arab Republic for co-operation in the development of atomic energy for peaceful purposes... It has been decided to set up an Export Promotion Council for finished leather and leather products at Kanpur... A study group has been set up to consider the problems relating to the organisation and promotion of transport co-operatives in the country, and formulate concrete programmes for the Third Plan... It has been decided to remove licensing restrictions on exports of most of the items on which at present there is export control. As compared to the old list of banned items numbering 185, there will now be export ban only on 78 items. The list of commodities freely licensable within the ceilings comprise 31 items which include wheat and rice bran, tinned butter, potatoes, onions, oil-cakes, H.P.S. groundnut kernels, indigenous wool, cotton rags, Indian teak, rose wood, bauxite, guar gum, raw goat skins, etc.

A three-member committee has been formed to examine all sale contracts and invoices relating to shipments of jute goods.

EXPORT IMPORT BANK

(Continued from page 7)

enterprises, which the Bank was empowered to undertake by the amending legislation of 1953 and the scope of which was enhanced by the amendment of 1957, is also intended to further the Bank's main purpose of facilitating Japanese exports.

The capital of the Bank has gone up from an initial 15 billion yen to 98.3 billion yen. Under the latest amendment, the Bank is allowed to borrow to the extent of three times the sum total of the capital.

The business operations of the Bank may be classified into (1) export financing, (2) financing of the supply of technical services, (3) import financing, (4) financing of overseas investments, (5) financing of overseas enterprises, (6) financing of development projects for foreign Governments etc. and (7) guaranteeing of liabilities. In fiscal year 1960, the latest year for which the annual report of the Bank is available, the Bank authorised 294 new credits in 31 countries for a total of 102.2 billion yen. About 78 per cent of these credits were for export financing.

The breakdown of the credit commitments by the Bank for commodities shows that export credits for ships amounted to 43.6 billion yen, those for vehicles and rolling stock 9.5 billion yen, electrical machinery 9.3 billion yen, textile machinery 6.0 billion yen, steel products 4.3 billion yen, and other industrial machinery 20.3 billion yen.

Since the Export-Import Bank

started functioning in 1950, there has been a phenomenal increase in exports from Japan. These increased from 0.8 billion dollars in 1950 to 4.2 billion dollars in 1961. An important factor which had contributed to this increase was the functioning of Export-Import Bank of Japan, which enabled thousands of overseas orders for Japan through credits advanced by the Bank.

Judging from the experience of these two countries, the decision to create an Import-Export Stabilisation Fund in our country is welcome. This Fund will be of help in meeting the essential import requirements of export industries. Such an arrangement would imply the matching of additional 'import credits' with export performance so as to augment both sides of the equation and to improve India's balance of payments in the process. It is hoped that in course of time this proposed body will become the nucleus of a full-fledged export-import bank which will meet the requirements of export-financing as well as import-financing.

The nation has set before itself the task of raising exports from Rs 667 crore in 1961-62 to a level of Rs 850 crore by the end of the Third Plan and to Rs 1,300 to 1,40 crore a year by the end of the Fourth Plan. This would require the adoption of a large number of steps affecting various aspects of export promotion. The establishment of an export-import bank in the country will be an important one among these.

DEEP-SEA FISHING

(Continued from page 21)

Increased production yielded profits leading to better prospects for fishermen. They also learned the meaning of co-operation and co-operatives and a number of fishermen's co-operative societies were also formed. Many co-operatives are now operating boats as big as 36 feet in length with 60 H.P. engines designed by the project exclusively for fishermen trained in mechanised fishing.

There are at present about 2,000 fish co-operatives with total membership of about 2,20,000 in this country of which some 800 are functioning successfully. Others require revitalisation for which programmes for the development of marketing, processing, canning etc. are being worked out.

About Rs 29 crore have been allotted for the development of fisheries in the Third Plan. Since two-thirds of the catch come from sea, the Plan has set up a target to introduce 4,000 new mechanised crafts. Fishing programmes of the Central Deep-Sea Fishing stations at Bombay, Cochin, Tuticorin and Vishakhapatnam will be exploited and a new unit has been set up at Veraval. Others are to be set up at Mangalore, Paradwip and Port Blair. Thirty-five large vessels are also to operate and landing and berthing facilities have been provided at two out of 16 ports. Fish being a highly perishable commodity, adequate facilities also are being provided for storing. During the Third Plan period the catch of fish is expected to increase from 14 lakh to 18 lakh tons. Export will also go up from Rs 6 crore to Rs 12 crore.

K. NARAYANASWAMY

SPORT (Continued from page 11)

The Nayudus and the Nissars, the Ghaus Mohammeds and the Dhyani Chands flowered to their full bloom not because they had officials trailing them around but in spite of them.

If they could do it, the question is: Why can't we? Precisely. But we don't seem able to. Reason? No motivation.

The motivation Indian sport needs is a fair-deal for sportsmen—on the sports fields and off it, in the years of their playing days and in the years of their retirement from the game. The fair-deal the sportsman hankers after but can never have is a niche in the world he helped to shape.

In Indian sport as exists today, not only can he not have it but daren't protest against it either!

Old generals, it is said never, die—they merely fade away. That goes for Indian sportsmen as well and that's precisely what's gone wrong with Indian sport—too many "functionaries" and too few functions, too much politics and too little sport.

Another word for it is tospy-turvydom. And the only way anybody can get a grandstand view of the show is by learning first to stand on one's head—"Sirshasana", if you like to have the trade-name for this yogic sport of our ancient "rishis.".....

ALL-INDIA COMPETITION FOR PHOTOGRAPHS ON COMMUNITY DEVELOP- MENT 1962

Entries are invited for the All-India Competition for Photographs (black and white) on Community Development. The photographs should reflect the spirit and endeavour of the Community Development Programme in fields like :

Agriculture, Irrigation, Social Education, Rural Health, Women & Children's Programme, Panchayats, Co-operation, Schools, Rural Industries etc.

Fourteen prizes will be offered for the selected entries, as follows : First prize—Rs 300, Second prize—Rs 200, Third prize—Rs 150, Fourth prize—Rs 100, 10 prizes—Rs 50 each.

Two copies of each entry should be sent. The photographs should be glossy prints of the size 10"x12", suitable for reproduction. The prize-winning photographs and their negatives will become the property of the Government of India and the right to reproduce them in any manner and for any purpose shall vest with the Government of India. Each photograph should bear on the reverse the name and address of the competitor and the detailed caption mentioning location, subject etc. (written in soft pencil).

The photographs should be packed flat. The Government of India will not be responsible for their loss or damage.

No person is eligible for more than one prize. In the event of several entries by the same candidate becoming eligible for prizes, the candidate will be given only the award merited by his best entry.

ENTRIES SHOULD BE SENT TO :

A. K. NARAYANAN, Section Officer (Publicity)
Department of Community Development &
Panchayati Raj, Room No. 372-A, 3rd Floor,
Krishi Bhavan, New Delhi

LAST DATE FOR ENTRIES :
1st NOVEMBER, 1962

A.D. 62/394

OVER TO YOU

CITING AND QUOTING

So far away in Kiel, West Germany, I have the good fortune of getting regularly *Yojana* and I derive immense pleasure in following the progress of our planned economy. Being a teacher of economics myself back home in India and working here over economic development, I happen to read *Yojana* very carefully. In its issue of April 29, 1962, on page 5 ("Truth About Our Growth Rate" by Mr A.V.R. Char) I have noted a couple of errors which I would like to point out so as to avoid future repetitions of such errors, which though minor, affect the reputation and standards set up by the journal.

In the second paragraph the author has quoted from the *Annual Economic Survey of Asia and the Far East*. I regret to point out that the quotation differs from the original found on page 90 of the Survey in question. In the original it reads "the country could have further explored the avenues" whereas in the article it is quoted as "the country did not explore fully". I am sure there is lot of difference between "could have" and "did not".

In the third paragraph of the article it is said that Tables 1-4 appear on page 20. As a matter of fact they are on page 12. The author ought to have been more accurate, specially when quoting a page number.

In the fifth paragraph again, there is another quotation from which some words have been left out which materially alters the meaning. In the original it is said "A different investment strategy might, in the short run, have made the progress of growth not only quicker but easier for the people." It is the short run and long run view of planning and its aims that determine the strategy, and the ECAFE survey made the comment under question in terms of short run. The omission of this vital word gives a wrong interpretation to what is meant by the Survey.

As a research worker, maybe, I am making fetish of minor errors but it is, I think, very important that one should be very careful in matters of citing and quoting because quoting out of context involves an altogether new interpretation which the original authors may not have meant at all. In any case I would like to compliment Mr A.V.R. Char for his masterly defence of the pattern of growth in India and the strategy of planning in general.

Institute for International
Economics, Kiel, West Germany.

S. SUBRAMANIAM

Mr A. V. R. CHAR writes :

The page numbers and quotations mentioned in the article were based on the preliminary mimeographed draft of the Economic Survey of Asia and the Far East which was subject to final editing. Table 1-4 under reference is on page 20 of the preliminary draft, though in the printed edition it is shown on page 12. Similarly, the quotation mentioned in the second paragraph of the above-mentioned letter has undergone a slight change in the Survey. The sentence as given in the original draft from which the quotation is drawn is as follows :

"Even if unmaturing investment accounts for some of the height of its capital coefficients, it does suggest that the country *did not* explore fully the avenues which would have secured a more rapid expansion of output with relatively smaller input of capital (or foreign exchange) which, after all, is the scarce factor in India's resources endowment."

Mr. Subramaniam has rightly pointed out the omission of some words from a quotation appearing in the fifth paragraph. However, it may be noted that the implications of long run and short run strategy of development problems have been discussed in that paragraph without, of course, distorting the views of the Survey. The last sentence in the fifth paragraph of my article, in fact, runs as follows :

"Perhaps an alternative strategy could have given better results in short-term, but India has necessarily to look to the problem from the long-term perspective".

YOU ASK US

LOANS TO CULTIVATORS

QUESTION from Mr A. Ganesan, Coimbatore.

What are the banks which advance loans to agriculturists? What is the procedure for obtaining the loans?

ANSWER: The loans for agricultural purposes are generally given by the co-operative banks and co-operative credit societies. The loans are given for seasonal operations, improvement of land, marketing of crops and such other purposes. To obtain a loan the cultivator has to become a member of a co-operative society and purchase some shares. The amount of loan is determined by the shares he holds, the area he cultivates and the nature of crops to be produced.

The co-operative societies, in turn, get funds for giving the loans from the State Bank and the Reserve Bank through the Central Co-operative Banks of the respective States.

Loans for agricultural purposes are also given in the form of *taccavi* by the State Governments.

L.I.C. LOANS FOR BUILDING HOUSES

QUESTION from Mr A. H. Siddiqui, J. K. Steel Ltd., Rishra, Dist. Hooghly.

It is laid down in the Constitution of the Life Insurance Corporation that building loans may be granted to the policy holders. What are the terms for obtaining such loans?

ANSWER: Loans for building houses are available to policy holders from the Life Insurance Corporation on the following terms:

1. The policy holder should own a plot before he applies for a loan.
2. He should have insured for a minimum sum of Rs 25,000.
3. The policy should have remained in force for a minimum period of five years before taking the loan.

4. The maximum amount of loan that can be given is 90 per cent of the sum assured.

5. Interest is charged at the rate of 7.5 per cent per annum.

6. If the interest is paid regularly, a rebate of one per cent is allowed.

7. The life policy and the house are mortgaged with LIC.

8. No fresh policy can be taken for obtaining the house building loan only.

The policy holder has to apply for loan to the LIC office which keeps the record of the policy.

C.D. SCHEME AND PEOPLE

QUESTIONS from Mr G. L. Verma, Dumka (Bihar)

1. How long does it take to start development activities in every village in a C.D. block?
2. A Block Development Officer said that a particular village in a block had not even been touched during the past six years as the villagers did not come forward to undertake any work or offer co-operation. Who is responsible for such a sorry state of affairs?

ANSWERS: 1. The Community Development activities start in villages soon after they are brought under the Programme. A village level worker, Gram Sevak, is appointed for every ten villages to advise the people on development activities. Besides, the staff at the block level assists the villagers in the various activities.

2. It is an unfortunate case if there is such a village which has not taken advantage of the Community Development scheme. However, it may be noted that the development activities are not restricted to construction works only. There are several other activities such as adopting improved methods of agriculture, use of improved seeds and fertilisers, organisation of community life, co-operatives, provision of health and medical facilities and so on. The villagers individually may take

Questions from readers on planning and development will be answered on this page. It might be noted that the purpose of this service is to provide information. Trade queries will not be entertained.

advantage of these facilities. If they have not taken advantage individually or collectively of the various schemes under Community Development, the villagers themselves are mainly responsible for the failure. The Gram Sevak and other staff are there primarily to advise and assist the villagers in solving the problems of the individuals or of the village as a whole. You can take the horse to the water but you cannot make it drink. However, it is also the duty of the Gram Sevak and the other staff to meet the people, discuss with them the advantages of the C.D. programme and persuade them to come forward and co-operate in the development activities.

SOVIET AID FOR POWER PROJECT

A contract for the supply of plant and equipment for the thermal power station to be set up at Pathratu in Bihar has been signed between the Bihar State Electricity Board and 'Machinoexport' — Soviet Foreign Trade Organisation.

Designed to generate ultimately 400 MW, the Pathratu power house will be the biggest thermal station in the public electricity supply system in India. The project is estimated to cost Rs 39 crore.

Pathratu plant is one of the four thermal power stations being built with Soviet assistance during the Third Plan period.

NEW NCDC COLLIERIES

THE National Coal Development Corporation has decided to start a new mining project at Singrauli in the Sidhi district of Madhya Pradesh. Located in an area of about 220 square kilometres in the northern part of the Sone Valley coalfields, the project will cost more than Rs 15 crore.

Another coal-mine will be opened at Bijuri in Sahdol district of Madhya Pradesh by the National Coal Development Corporation at an estimated cost of Rs 2 crore.

MEAT

Or

MILK ?

M. K. Ramamurthy

NOR much is said in the Third Plan about better nutrition through an enlarged supply of cheap meat, though a reference to piggery development and poultry farming finds a place in the chapter on animal husbandry and fisheries. In spite of India having the largest number of cattle, the Commonwealth Economic Committee's intelligence branch, in its review of meat (HMSO 7s 6d), leaves India out of calculations.

Meatless in India: but that is the wrong impression to spurn. The report, prepared in December 1961, deals with beef producing countries and the official attitude in India to cow-protection may explain the statistical exclusion of India. But why Pakistan too has been omitted from the survey may cause surprise if it were not for the admission "that in Asian countries cattle are kept for purposes other than meat production". Of course, hides and skins derived from the slaughter of animals are mentioned in the Third Plan and improved flaying is treated as a means to better leather production. Stall-fed cattle for meat are inconceivable.

The world-wide trend in the increased consumption of meat, following a rise in production, is a symptom of progress or prosperity. The meat packing industry in the U.S.A. has diversified progressively and big packers now produce chemicals in addition to corned beef. The importance of meat exports for New Zealand, Denmark and Argentina is emphasised by, and in, the trade figures which reveal incidentally that the European Common Market now takes more meat from abroad, while the U.S.A. also imports more meat from Australia and New Zealand. The highest standard of living rests on steaks as well as chocolate.

The elimination of India from the analysis may suggest that India does

not go in for carcase or canned meat and self-sufficiency in meat is more a cause than an effect of import restrictions in force. What is plain to the Commonwealth Economic Committee is that in the production or export of bacon and veal, the Commonwealth is a long way behind other countries. In the major producing countries the consumption per head is high, but in Yugoslavia the domestic *per capita* consumption is lower than in Switzerland. It may be hence inferred that the standard of living exercises a direct or strong influence on the demand for meat and poor or underdeveloped countries must rely on foods other than meat. However, a significant postwar development is the rise in Japan's import of carcase meat suggesting, incidentally, that Australia may find an alternative market for beef or mutton if the U.K. imposes a tariff like the E.C.M. countries.

The more significant feature of the post-war period has been the preference for fowls and, in the U.S.A., demand for roast chicken rather than roast beef has gone up. This is part of the progress of the poorer classes towards comfortable living. While Denmark exports poultry meat the North American region consumes more in consonance with the desire for a better or more varied diet. The rising West German standard of living is fully reflected in the larger offtake of poultry meat in recent years. Italy, as compared with Germany, does not buy much and the explanation may lie as much in economic as in climatic differences. The passion for sea-food is another factor.

While subsidies stimulated meat production in the U.K., the trend towards higher consumption helped

imports especially from Eire which supplies beef on the hoof. The forecast of a steady rise in European meat consumption means very little to India which exports only a few live animals for breeding purposes to approved buyers. In any case, the whole trade in meat is internal, not international, and its size or nature can be glimpsed only in the reports on the marketing of hides. It is known that hide exports from the U.S.A. are derived from the meat packing industry while in India meat signifies much less than hides and skins which remain a major item in export trade. It may be added that rising consumption in Europe has been assisted by a decline in prices particularly for beef and mutton. Whether a large trade in meat with the Soviet Union can develop in the future is an issue that scarcely arises, but it needs to be mentioned because exports of pork from Yugoslavia or Denmark may well follow an upsurge or new pattern in East-West trade.

A major development of recent years has been the diminished importance of the Argentina as an exporter. The present economic difficulties can be related to the decline in meat shipments in 1960-61. While Uruguay's export shipments increased to the U.K., the Argentina lost ground in Western Europe also. The agricultural surplus of France explains the strong rise in German imports of meat and lower prices for cattle led to higher output of meat in most exporting countries. There is another factor—the cost of feeding cattle, for outside the U.S.A., Argentina or Australia, ranching is unknown and the limits set to grazing affect the output of meat.

Supplies of meat from Africa are rising but the relative cheapness of American steers, as compared with young oxen in Germany, signifies very little in terms of international trade. For the U.S.A. local supplies are supplemented by regular imports from Canada and Mexico. But this is again a pointer to what the U.S.A. consumes by way of meat, since prosperity reduces the consumption of cereals and raises the proportion of meat, eggs and milk. The protection given to wool-growers in the U.S.A. has led to a steady rise in the number of sheep, leading also to the increased supply of mutton at home

(Continued on page 28)

VIRUSES

Invisible Enemies of Crops

CAN NOW BE CHECKED

I.C.A.R. Information Service

FROM time immemorial, man has been a victim of diseases caused by viruses. Small-pox, influenza, the common cold are diseases caused by viruses. They attack our domestic animals too. Virus is responsible for the foot and mouth disease that attacks our cattle. It still remains as one of the most dreaded of all animal diseases.

There are several plant diseases caused by virus such as the sugarcane mosaic, tobacco mosaic, chillies mosaic and leaf curl, potato leaf roll, etc. Till recently, factual information on the agents causing the disease was virtually absent, even though sustained efforts were made by agricultural scientists all over the world. The fundamental concepts about the nature of the virus were worked out by Dr Stanley, an American scientist in 1935 for which he was awarded the Nobel Prize in 1946.

A virus is an extremely minute disease-agent which cannot be seen even by an ordinary, powerful microscope. It requires the help of an electron microscope which has the power to enlarge objects 30 or 40 thousand times. For instance, the tobacco mosaic virus which Dr Stanley separated from the sap of infected tobacco plants is only visible through an electron microscope when it appears as straight rods. Unlike bacteria, a virus can multiply itself only when inside a living cell.

Of the several kinds of viruses affecting plants, some 150 are so far known all over the world. More than 70 different virus diseases affecting crop plants have been reported in India. Almost every group of crop plant has one or more virus

diseases. Many affect a wide range of plants; for example, the tobacco mosaic virus may infect a tomato plant.

Viruses do not normally kill a plant completely. They multiply inside the living tissue. Sometimes the chlorophyll is destroyed and the leaves turn yellow. This affects photosynthesis and consequent nutrition of the plant. This is how it attacks sugarcane also. In some infections, leaf-like outgrowths are produced. In others there are distorted flowers with green petals. These are some of the symptoms by which virus attack is identified. In extreme cases a plant may wilt and die. In these and various other ways, agricultural crops are attacked by viruses resulting in reduced yield. Such losses are sometimes very heavy.

prevent insects from feeding on crop plant through deterrent sprays. Fortunately, only few viruses are transmitted from one parent plant to its offspring through its seed. The disease, therefore, can be prevented in many crops when plants are grown from seeds. Another way is to obtain virus resistant types, as some plants have been found to be resistant to virus attack. Heat treatment of planting material is also found helpful in some cases.

In vegetatively propagated plants like sugarcane and potato, the disease is passed on from year to year. In the same way, trees once affected, may continue to suffer throughout their life. As stated, virus disease spreads easily and its control has proved a difficult problem. Many viruses are yet to be studied.



How to Control Viruses

Datura leaves affected with Virus 'X'

Viruses spread from one plant to another easily. A virus particle can enter a plant through small wounds. Many viruses are transported from plant to plant by insects. Millions of insects suck the sap from an infected plant and go to another healthy plant and infect the same.

Of the methods of control studied throughout the world one is to

As plant viruses are depriving us of thousands of tons of food every year, there is need to study this new invisible 'germ'. A Virological Research Unit is now at work at the Agricultural College and Research Institute, Coimbatore. We can look forward to useful results from this unit which will help in removing this scourge.

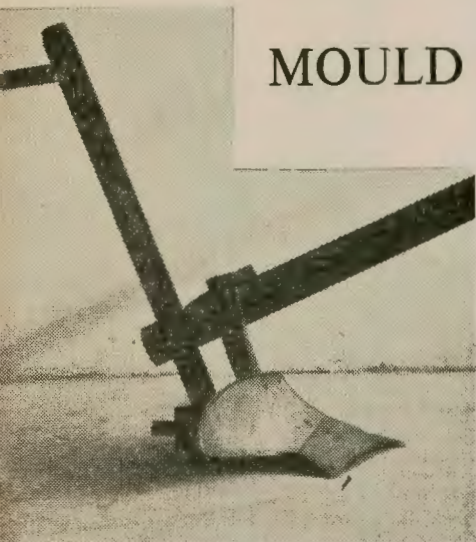
Better Tools for Farmers

PLOUGHING is the first agricultural operation a farmer has to perform. He does it by means of a country plough, the shape of which remains almost same throughout India. Soil variations and modifications are found in different areas. But a *desi* plough pulled by pair of bullocks remains even now the most important indigenous agricultural implement that is used by Indian farmers. It has been found that if these indigenous ploughs are replaced by improved implements such as mould board ploughs, they will help the farmers in ploughing the land more efficiently.

even lighter than the Meston ploughs. These have been named as Assam Ploughs. They cost approximately Rs 20. The cost of light ploughs range between Rs 22 and Rs 26. The medium ploughs such as CARE Senior cost Rs 45 to Rs 50 and the heavy ploughs, Rs 70 to 90. The heavier ploughs require two to four pairs of bullocks. These are very popular in the black cotton soil areas. These are all turn-wrest type, that is, the direction of the mould board and the share can be turned from one to another.

Ploughing should be done immediately after the crop is harvest-

MOULD BOARD PLOUGH



ed so that the land remains fairly soft. If the land is allowed to dry ploughing becomes difficult. The light and medium mould board ploughs are easy for adjustment as they have long beams. The heavy mould board ploughs have short beams with one controlling wheel. However, the heavy ploughs are most efficient because the depth and the width of the furrow can be controlled. For the share of the plough high carbon steel should be used. If properly adjusted, these ploughs do not require much control by the driver. Very small mould board ploughs are quite popular in Madras State. They are known as Melur Ploughs, having a combined mould board and a share with a total length of about 6" to 7". These are useful in lighter soils.

By D. N. KHERDEKAR

Agricultural Implements Specialist,
Ministry of Food and Agriculture

This is the first of a series of short articles on various types of improved agricultural tools which could be of much use to our farmers. Tools to help harrowing, sowing, harvesting and winnowing operations are to be covered in the articles to follow.

The mould board plough consists of a steel share having a sharp edge for cutting the land and a steel mould board for inverting the furrow slice. A beam and a handle is provided. These ploughs can be classified into three main groups: Light ploughs, medium ploughs and heavy ploughs. Among the light ploughs are Meston Plough, CARE Junior, Shahbash type plough, Konkon etc. The medium plough group includes The CARE Senior, Monsoon, Gurjar, etc. In the heavier types, mention can be made of U.P. No. 1 and 2, Kirloskar Nos. 11, 15 and 100.

Light ploughs are most popular and require one pair of bullocks. Hilly areas require a plough which is

MEAT

(Continued from page 26)

though the U.S.A. does not consume as much mutton as Japan or the U.K. The growth of both population and prosperity in Hong Kong can be measured in the rise in imports of meat. There is a trade in live sheep confined largely to Arabia, and the supplies are drawn from Somalia which ships hides and skins also mostly to Aden. The Algerian shipments of sheep have fallen away greatly owing to the war, but a significant postwar development is the supply of Australian sheep to Malaya. One wonders whether India can hope for a share in this trade. But one must remember in this connection that the mainstay of the mutton trade in India is the flesh of the goat. The preference for the goat is not on account of its being an animal suited for sacrifice but the low cost of maintenance—at the expense of all vegetation.

The Commonwealth survey has omitted the goat altogether though the Indian butcher may be said to depend largely on the number of goats available locally. Perhaps it is right to add that the regular supply of meat is confined to big towns. And the villages are condemned to long spells of vegetarianism. This too is based on sheer economic factors. Yet the growth of fish consumption, for instance in Madras, supported by new, larger supplies from inland sources, may be taken as a sign of local vegetarians being in the minority.

The more significant aspects of the meat trade is that it is largely based on a pastoral industry in newly settled regions and India is an old country with a diverse population that has to live by intensive farming. This radical distinction deserves special notice, because it is patent that breeding cows for milk production must be the aim of cattle improvement schemes. A question as to the disposal of surplus males will arise.

However, the main interest of the survey of meat is that it contains little to suggest that India has any contribution to make and the new trade in shrimps or frogmeat from the West Coast cannot be taken as evidence of an industry that is going to lift export trade.

Someone lonely, someone loved

This is Gomti Devi. Her husband died in 1960. "I am all alone now," she said. "We had no children." Yet she sits there in serenity, reading her prayer book.

Her husband used to earn only Rs. 250 a month. He died young—suddenly, of heart failure. Yet he left her Rs. 5,000. "I got this from his Life Insurance Policy*", she explained.

So Gomti Devi has some money to fall back on, some security in life. Today she can sit there in serenity, reading her prayer book, because her husband had the forethought to insure his life. She is lonely today, but she has the memory of his love.

* Endowment Assurance Policy without profits



There is no substitute for

LIFE INSURANCE

PRIDE OF PLACE

"KHARI" WORK OF NAGPUR

WHILE in Nagpur recently I entered a shop and asked for a handloom sari. The shopkeeper spread before me a full-length sari studded with star-like designs. To convince me of their distinctive features he asked me to examine the stuff more closely.

"The designs you see are not any needlework as you seem to believe", he said, "they are pasted".

On closer observation I found that they were raised a little above the fabric and actually pasted in different colours on one side. The process, I was told, is called 'khari' work for which Nagpur is famous. The colours are fast and they stick to the fabric as long as it lasts.

To prepare 'khari', the craftsman mixes lithopone, a white pigment of barium sulphate and zinc sulphide, with 'rogan' or a kind of linseed oil. The mixture turns into a thick, gum-like substance. He gets a small lidless metal box, the base of which is made of perforated designs. The box is kept on the surface of the fabric and the 'khari' placed inside the box. Pressure is applied and the designs get transferred on the cloth. To safeguard against over-spreading, mica dust is applied on the pasted designs.

"Are the design boxes also made in Nagpur?"

"No, the perforated boxes are made by craftsmen at Maunod Bhanjan, a village in Hoshangabad district of Madhya Pradesh," the shopkeeper replied.

Though only floral and ornamental designs are used, what gives 'khari' work a special charm is its freshness. Because of contrasting colours a network of white designs, particularly on a black or a red fabric, comes out in bold relief.

As the shopkeeper told me, there was a time when almost every woman in a Maharashtrian family possessed a sari or a blouse with 'khari' work. Because of cheaper printed varieties, 'khari' work is losing its popularity, though there is a demand for the work in the rural areas.

K. B.

