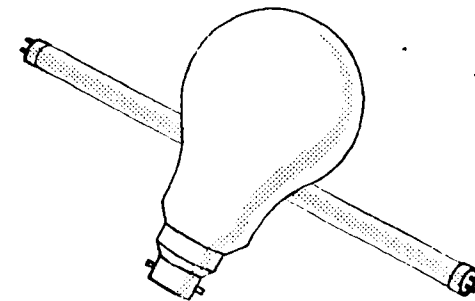


ELECTOLITE

A Journal of Electricity Supply and Utilization



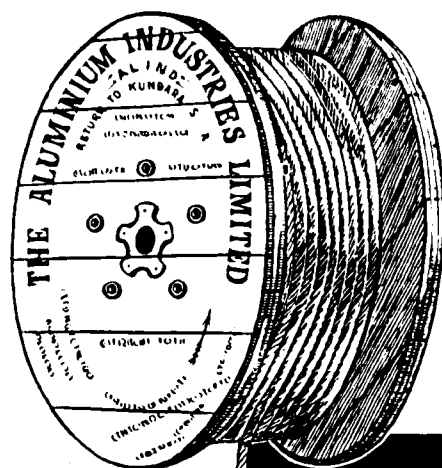
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In this issue :

Bhakra - Nangal
MPELA Conference
Advertising in business
Staff Day
&
Other usual features



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ELECTROLITE

...A Journal of Electricity Supply and Utilization

Power to the countryside

406

"RURAL Electrification" has again loomed as a subject of discussion—this time, at the Engineers' Seminar held at Roorkee in July.

The Seminar considered at length both the technical and financial aspects of rural electrification. On the technical side, the participants recommended a simplification of designs so as to reduce costs consistent, of course, with safety and satisfactory service. Dealing with the financial aspect, they pointed out that supply to villages would not, by itself, be an economic proposition. Financial subsidies were necessary, they said, and the benefits that accrued to the people indirectly in the form of improved production and better standards of living should be considered as more than an adequate return on the investment.

The problem of rural electrification does not, however, end with mere extension of lines. Even of greater importance is the proper utilisation of power by the villager. He has to be provided with the necessary facilities for the gainful utilisation of electricity. Arrangements should be made to market his production. Both these jobs—that is, taking power to the villages and planning its utilisation are complementary and are best tackled by a unified, independent agency—such as an Electricity Board, the need for the formation of which was stressed by Mr. P. Natesan, President, MPELA, at its recent conference.

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Mr. P. Natesan.

SPEAKING at a party given to the Chief Minister of Madras Mr. K. Kamaraja Nadar, Mr. P. Natesan, M.P. President of the Madras Presidency Electric Licensees' Association, said that the power position of the State would not permit of any delay in the execution of the Kundah and the Periyar hydro-electric projects and the Neiveli thermal project. Mr. Natesan emphasised the need for the early formation of an Electricity Board as contemplated by the Electricity Supply Act.

The following are extracts from his speech :—

"In 1937, when this Association entertained the first Congress Ministry, I, as the President of the Association, stressed the need for the closest co-operation between the Government

and the licensees for the rapid development of electricity. We have always been giving our utmost co-operation and assistance to Government in all their measures, including the passing of the Madras Electricity Supply Undertakings Acquisition Act, 1949. Indeed, our co-operation was acknowledged in very generous terms on the floor of the Assembly by Mr. M. Bhaktavatsalam, the then Minister for Public Works.

NATIONALISATION

"For some years now, nationalisation of electricity undertakings has been in the air. I, for one, consider, the word, "Nationalisation" itself to be a misnomer. The Madras Electricity Supply undertakings Acquisition Act is only a piece of enabling legislation for Government to acquire undertakings which in their opinion, were either

FORMATION OF ELECTRICITY BOARD

MPELA PRESIDENT'S PLEA

not working efficiently or, where its acquisition was essential in the interest of the co-ordinated power development of the area concerned.

"Criticism is often levelled against private licensees that they are, more often than not, interested in extending electricity supply to urban areas for the reason that rural lines are not remunerative. As a matter of fact, some of the members of this Association are virtually pioneers in rural electrification. In this connection, I would like to mention that with their limited resources and restricted areas of supply, private licensees have extended the benefits of electric supply, to well over 860 villages as against the 1400-odd villages to which supply has been rendered by Government—with all the resources at their command and the vast area at their disposal.

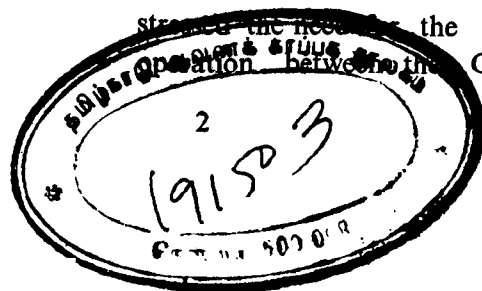
VARIED PROBLEMS

"The Electricity Department is today as big a department as the P.W.D. It has overgrown itself and its present organisational set-up is perhaps not conducive to efficiency. Running a large commercial concern as a department of the Government, subject to routine and red-tape perhaps, means much wasteful expenditure. The problems tackled by the Department range from negotiations

with the Planning Commission and the Centre, on power requirements, to considerations of small problems connected with distribution to the final consumer. The net result is we are left in the unfortunate position of inadequacy of power on the one hand and a dissatisfied public on the other.

ELECTRICITY BOARD

"I would urge the early formation of an Electricity Board as contemplated by the Electricity (Supply) Act; such a Board will have the freedom to act on its own, relieving Government to devote more attention to other urgent and immediate problems. A Board with a central body engaged mainly on the creation of new power stations and main transmission systems, with regional bodies dealing with compact divisions of the State for distribution of power, and for promotion of methods of proper utilisation is, I think, the correct answer to the problem of rational and economic development. I want to emphasise that these two problems—namely, planning for power production and its utilisation should not be mixed up. They are separate departments. The former calls for high technical skill and planning abilities and the latter requires commercial ability, salesmanship and an intimate knowledge of the needs of those who use electricity.



"The licensees may remain in the picture or may disappear. That problem does not exercise our minds much. We are only anxious that the rational development of electricity in the State should be assured, and to this end we are always ready to offer all co-operation".

CHIEF MINISTER'S REPLY

Replying to the address, Mr. K. Kamaraj Nadar said that the Government was determined to execute important hydro-electric projects as early as possible and to that end, necessary steps were being taken. He remarked

that everyone was eager to serve the people and there was no difference of opinion about that.

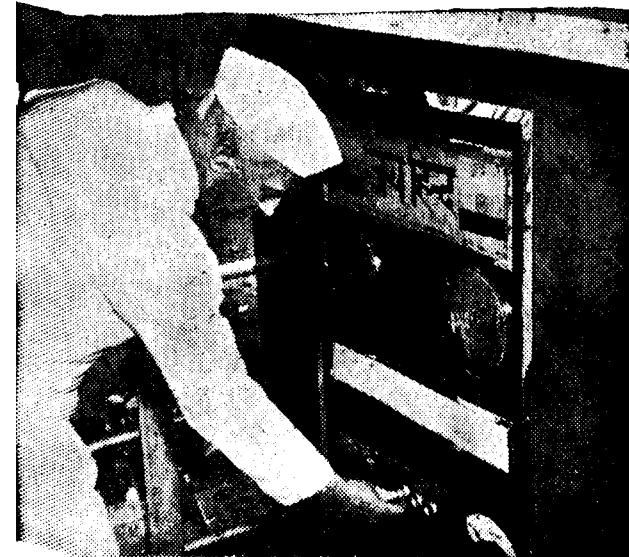
The Chief Minister further observed that Government would consider suggestions made by those with experience in the industry. He further stated that good works, wherever it was and whoever was responsible, deserved commendation. All those private undertakings which worked sincerely in the better interests of the people deserved praise.

Our Corporation was represented at the function by Mr. H. K. Ramaswami, Dy. Chief Engineer.

The customer is *not* always right !

From a consumer's letter: "The house belongs to me, but former accounts were rendered in the name of my late wife, who died on the 9th January for convenience sake".

P. S. We hasten to add that the writer of this letter is not one of our own consumers, but a consumer of one of the Area Boards in England !



THE BHAKRA-NANGAL PROJECT

ON July 8, the Prime Minister, Mr. Jawaharlal Nehru, pressed a button to raise the gates of the world's longest canal and release life-giving water through Bhakra-Nangal's irrigation network which interlaces one of the most arid regions of India.

The Bhakra-Nangal Project comprises two dams with two power-houses, the Nangal Hydel Channel, a new irrigation system, and augmentation of the old canals. The dam at Nangal has been constructed, while the one at Bhakra, will be taken in hand this winter.

A ROMANCE AND AN INSPIRATION

Completed a year ahead of schedule, the 40-mile long Nangal Hydel Channel runs along the foothills of Himalaya's Shiwalik ranges through one of the most difficult terrains in the country. Through their own efforts and resourcefulness, our engineers have surmounted tremendous odds in its construction. The opening-up of a

tract infested with thick thorny jungles constitutes a romance in itself and will remain an inspiration for generations to come.

The Nangal Hydel Channel takes off from the diversionary reservoir formed by the Nangal dam. Its primary purpose is to supply water to two power-houses on its course and irrigation water to the Bhakra Main Canal, near Rupar. The Hydel Channel is lined with cement concrete in some parts and tile masonry in others. The tiles, if laid end to end, would encircle the earth at the equator twice. Lined canals are considered to have several advantages, particularly with regard to permitting a higher velocity of water, accompanied by smaller loss from absorption.

About 140 feet wide at the top with a water depth of 20.6 feet, the Channel negotiates nearly 58 intricate cross drainage works. The longest cross drainage work is the Sirsa aqueduct.

Here the Channel passes over a stream in a huge trough resting on piers rising from the river bed. The Channel's excavation is said to have involved 26 million cubic yards of earth, gravel and boulders, and at some places high ridges and deep ravines had to be dug and earth-filled from 40 ft. to 80 ft., which, in effect, meant the construction of small dams.

TWO POWER HOUSES

Utilising the natural slope of the area, which is steeper than that of the Channel, the two power houses have been constructed, one at Ganguwal, 12 miles from the Nangal dam and the other at Kotla, six miles further down. The natural drop which is more than 170 ft. from one end of the Hydel Channel to the other, called for the location of both power houses at a depth of 93 ft. to take advantage of the decline. At Ganguwal, the foundations are laid 60 ft. below subsoil water level, while at Kotla they are 90 feet. Special de-watering arrangements had to be made to drain out water from the foundations. The two power stations will together generate 96,000 kW, with two units each of 24,000 kW at each power-house. Provision has been made in the estimate for the installation of another unit at each power-house, if necessary, at a later date. Electricity from Ganguwal will be available next month. Delhi will be one of the cities to benefit. The Kotla power house is expected to be ready towards the end of next year.

The 108-mile Bhakra Main Canal, which is a continuation of the Nangal Hydel Channel is tile-lined throughout as is its Main Branch 90 miles in length. The canals—Nangal Hydel Channel, Bhakra Main Canal and Bhakra Main Branch—form the longest single unit of a lined canal in the world. About 29 million cubic yards of earth had to be excavated, apart from nearly 30 million cubic yards for its main branches and distributaries. Along its entire route, gigantic cross drainage works have been built over wide streams.

NANGAL DAM

The hub of the entire irrigation network is the Nangal dam, which is expected to serve the dual purpose of acting as a balancing reservoir for the Bhakra dam and of diverting water into the Hydel Channel. Begun in 1946, it was finished in 1951, but could not be put into operation owing to the absence of gates which were, till this year, being manufactured at Amritsar and were only recently installed. Located at a point where the Sutlej debouches into the plains, the dam is 91 ft. high from the foundation rock and 1,000 ft. long. It has 26 bays of 30 ft. span each separated by 7 ft. wide piers which also carry a road bridge. On its left, at a right angle, the Nangal waters—before flowing into the Hydel Channel—percolate through a double-deck shingle excluder meant to

serve as a sieve for holding shingle and gravel. This extraneous matter is then swept down the river's current. Similar devices in the rest of the Channel's flow further clean the water, before it pours into the first power-house to churn the turbines.

GIANT BHAKRA

Eight miles upstream where through a canyon the Sutlej pierces the last spurs of the Shiwalik range, called Naina Devi Dhar, on its journey to the plains, the stage is set for work to begin next winter on the main dam of the project.

The canyon has been a beehive of intense activity since 1948 when work started on two huge tunnels. The tunnels, which are now practically ready, have been constructed to divert the Sutlej river from the dam site to keep it clear of water for work to begin. The right tunnel has been tested and has stood up to the pressure of a 40,000-cusec discharge of the Sutlej, since March this year. In the left tunnel, grouting operations are in progress in some parts. Lined with a layer of cement concrete over 3 ft. thick, the tunnels will withstand the onslaught of the river's swift current for the next four to five years. Considered to be a stupendous engineering feat, they are about half-a-mile long each and 50 ft. in diameter. They have a capacity of 205,000 cusecs to

pass the maximum flood discharge of the river. On the completion of the sky-high dam, the need for the tunnels will not exist.

The process of diversion will commence during the winter of 1954—55 when a coffer dam upstream of the site, will be built to bifurcate and pack

SOME OUTSTANDING FACTS

1. The Bhakra dam will be the world's second highest and the highest among the straight gravity-type dams.
 2. The Nangal Hydel Channel, the Bhakra Main Line and the Bhakra Main Branch form the longest single unit lined canal system in the world.
 3. The 10 generating sets of 90,000 kW each to be ultimately installed at the power houses near the Bhakra dam will be the biggest units in India and among the biggest in Asia.
 4. The total power potential of the Bhakra-Nangal scheme which is approximately 700,000 kW at 60 per cent. load factor is roughly 20 times the peak capacity of the generating station at Joginder-nagar, serving the major portion of the requirements of the Punjab State to-day.
 5. The total length of high-tension and extra high-tension transmission lines under the Bhakra-Nangal scheme is nearly 2,500 miles and their voltage ranges between 11,000 volts and 220,000 volts.
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the river into the tunnels. Another coffer dam will be raised downstream to prevent the water from receding to the site of operations.

BENEFITS FOR THE PEOPLE

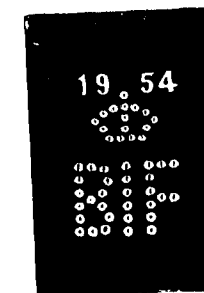
The millions of gallons of water stored in the reservoir will be utilised for generating ultimately 900,000 kW of energy in two power-houses at the base of the dam on both the banks of the river. The power-houses, which will be earthquake-proof, will be set up as and when the load demand justifies them. The total output of the entire Bhakra project is ultimately expected to be nearly one million kW.

Estimated to cost about Rs. 156 crores, this colossal project is being financed by the Governments of Punjab, PEPSU, and Rajasthan on loans

obtained from the Government of India. The annual return, including betterment fee, will be 3 per cent on the capital outlay on irrigation, 10 years after the completion of the project. The relief to the people and the State exchequer in the form of alleviation of famine conditions in the area of the Bhakra Main Canal system can be gauged from the fact that the State Government had to spend from—1938 to 1940—a sum of Rs. 3 crores on this account.

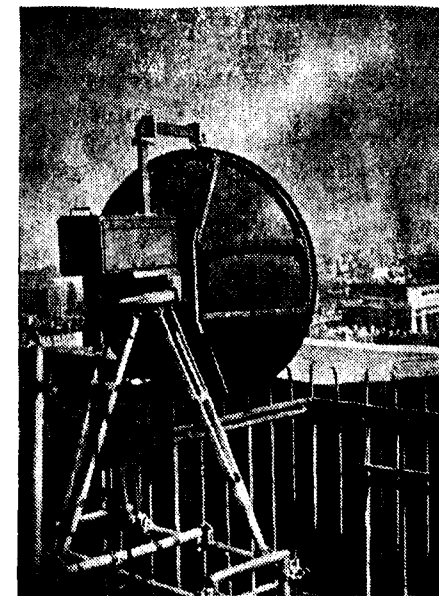
From a dream, the Bhakra-Nangal Project has become a reality. It embodies the unrelenting endeavour of a people impoverished by the loss of their rich ancestral lands, but full of determination even in their darkest hour to strive and not to yield.

Electrical and



Electronic Exhibits

THE televising of the coronation ceremony of Queen Elizabeth II was a triumph of organisation and an amazing technical achievement. An outstanding feature was the microwave relay-link across the Channel which carried the coronation scenes into the homes of several million viewers in Western Europe.



The antenna assembly of the television transmitter on the roof of Senate House, London — which enabled viewers in Western Europe to see the Coronation of Queen Elizabeth II.

One of the firms which contributed greatly to this particular aspect was

Standard Telephones and Cables Ltd., London, who supplied the microwave, relay-link equipment which transmitted the television programme from London to Cassel, in Northern France, where it joined the European net-work. This firm's exhibit at the Birmingham section of the British Industries Fair which was held from May 3 to 14 consisted mainly of a large-scale model of the United Kingdom and European television net-work at the time of the Coronation.

“WALKIE-TALKIE”

At the Earls' Court section of the Fair was a display of the special radio transmitting and receiving equipment used by the Mount Everest Expedition. One of the most vital factors in the planning and timing of the assault was an accurate knowledge of the meteorological conditions in the Himalayas. Monsoon weather forecasts were broadcast by the All-India Radio and the British Broadcasting Corporation's Overseas Service, and specially-designed short-wave receivers were used by the expedition for this purpose. Another important radio requirement was the need for a communication-link between climbers and between the various camps established along the mountain, to control the flow of stores and personnel during the build-up and so get the climbers poised for the final assault.

This latter requirement was most easily met by V. H. F. (very high

frequency) "walkie-talkie" sets, which are miniature transmitters and receivers. These short-wave receivers and v. H. F. sets were designed and manufactured by Pye Telecommunications Ltd., who are among the largest makers of this kind of radio communication equipment. The short-wave receivers were slightly modified versions of the standard export model, but the v. H. F. sets were specially designed to withstand the rigours of Everest and the tropical heat on the way to the Himalayas, and at the same time impede the climbers as little as possible by weight and bulk. The use of these sets contributed significantly to the build-up of the final assault, and the greatest



Walkie-Talkie radio receiving and transmitting sets used by the members of the Mount Everest Expedition.

height at which they were used was 24,000 feet—a remarkable tribute to the soundness of the design and manufacture.

ELECTRONIC ORGAN

Another interesting exhibit at the Earls' Court section was a new type of electronic organ with several attractive features for the organ-lover.

Pipe organs, although highly desirable from the musical point of view, are expensive instruments and require considerable space. They are often beyond the means of most people, and because of their size, they cannot be accommodated in the average home. In such cases, the harmonium is the only substitute. Electronic organs, on the other hand, can reproduce synthetically all the tones of the pipe organ with a quality that is readily acceptable, and at the same time the space requirements are much less severe.

The new electronic organs, manufactured by the John Compton Organ Company Ltd., of Minerva Road, London, has been designed to be as simple as possible and yet have the same range as a full two manual and pedal instrument. It is no larger than a miniature piano and, except for the loudspeakers, which can be conveniently placed in the hall, is completely self-contained. There is only one manual, but an automatic pedal bass section can be coupled to the manual by means of conventional stops.

Organ tones are produced electrically by rotating wheel generators on which are engraved the complex electrical wave-forms corresponding to the tones. The output signals from the generators are fed into two high-quality amplifiers, one of which deals with the lower register and the other with the higher register. Each amplifier has its own loudspeaker, and by this means many of the complications associated with a single amplifier and cross-over net-works, are avoided.

Power Development under the Plan

IF consumption of power is the barometer of the march of civilisation, demands for electricity voiced in the remotest parts indicate that India is rapidly forging ahead.

The consumption of power in 1939 was 2,083.5 million kWh and the output 2,439.9 million kWh against today's 5,438.1 million kWh and 6,627.3 million kWh respectively. This upward curve is attributable to developments during and after World War II. Confining our survey to the progress made so far during the Five-Year Plan period, India has registered an increase of 34.6 per cent in the installed capacity of power plants, from 1,712,515 kW, on January 1, 1951, to 2,304,255 kW on Jan. 1, 1954.

RISE IN POWER GENERATION

Similarly, the energy generation has during the same period risen from 5,106.7 million kWh to 6,627.3 million kWh, or about 29.8 per cent. The comparatively low stepping up of energy generation may be ascribed to the fact that some of the new plants commissioned in 1953 could not be loaded to capacity, as transmission lines,

sub-stations and other allied works, were not ready.

On March 31, 1956, when the Five-Year plan ends, the installed capacity is expected to be 2.94 million kW against a target of 3.17 million kW.

Power development has been both thermal and hydro. Thermal power capacity has recorded a mounting trend from 1,153,253 kW in 1950 to 1,57,300 kW in 1953; and it is hoped, will touch 1,839,900 kW by March 1956. The 1950 hydro capacity of 5,59,285, kW was, by the end of 1953, raised to 731,185 kW, and it is expected this figure will be 1,099,400 kW by March, 1956.

Thus, for the first time, a determined effort is being made throughout the country to harness the energy of flowing waters now going waste to the sea. More sites are being investigated to build hydro-power stations to conserve the country's precious coal deposits.

Practically every State in India has registered some improvement in the power position during the last three years of the Plan. The progress made

in some of the principal States is summarised in the following paragraphs.

WEST BENGAL

West Bengal, commissioned a 30,000-kW set at Mulajore in 1951, and has almost finished the North Calcutta Grid scheme intended for the benefit of the area covering about 1,000 sq. miles lying north of Calcutta. Progress on the Mayurakshi project raises the hope that the power station of 5,000 kW will be in operation some time next year. The decision that the Damodar Valley Corporation should supply power to Calcutta ensures that the city's future requirements will be satisfactorily met.

BIHAR

The most outstanding achievement in Bihar is the completion of D.V. C.'s Bokaro thermal power station whose generators began to revolve in 1953. The three sets here, said to be the first of their kind to be installed in India, generate 150,000 kW. Provision has been made for installing a fourth set of 50,000 kW when the load justifies it. Simultaneously with Bokaro, the Tilaiya hydel station (4,000 kW) lit the Hazaribagh district and the Kodarma mica mines. Maithon, another D. V. C. project, where work is in full swing, will have a capacity of 60,000 kW in 1957. By the end of 1957-58 when all of D. V. C.'s

projects (first phase) are completed power will be available to Gaya, Patna, Dalmianagar and Calcutta, besides the Damodar Valley basin, which comprises the districts of Hazaribagh, Manbhum, Singhbhum, Ranchi and Burdwan.

BOMBAY

In the Greater Bombay and Poona areas, Tatas have installed an additional 22,000 kW set at the Bhira hydel power station. The Central Railways' 24,000 kW plant at Kalyan steam station started production in 1952-53. In April this year, the Bombay Government's steam plant at Kalyan, set in motion one set of 18,000 kW while two more of the same capacity are ready for commissioning. Tatas' Trombay steam station will have one 50,000 kW plant by 1956. Work is also planned to commence on the Koyna hydro project (240,000 kW initially).

In the North Gujarat and Ahmedabad area, 15,000 kW were added to Ahmedabad's supply in 1951, and of the three 15,000 kW sets, which have arrived for the Sabarmati new 'C' station, one started functioning in March this year. The 66 kV transmission line around Ahmedabad city has been energised. The North Gujarat Grid scheme is nearly complete and supply is available up to

Kalol in the north and Baroda in the south. The South Gujarat Grid was started in 1952 with two 7,500 kW units at the Utran steam station near Surat while a third of the same capacity is being set up.

With the completion of the 33-kV transmission line between Harihar and Byadgi and 110-kV line between Jog and Hubli, the Jog Karnatak Grid scheme is likely to give power in 1955. The Radhanagari irrigation-cum-electric project (6,000-kW) undertaken by the Bombay Government began supplies in 1952.

DELHI

Delhi's power scarcity was relieved by one 5,000 kW plant in March 1951, and two 10,000 kW sets in 1952 at 'B' power house. The position will ease further early next year, when hydro-power from the Ganguwal power house on the Nangal Hydel Channel of the Bhakra project will augment supply by 10,000 kw.

ANDHRA

Andhra's future is linked up with two hydel stations, one at Machkund (51,000 kW), and the other at Tungabhadra (36,000 kW—Mysore side.) At Machkund, 132-kV transmission line to Vijayawada has been completed and civil works for the power house are

in hand. The target date for this project is 1955. Two steam plants of 3,000 kW capacity have been added at Vijayawada and one 1,500-kW at Vishakapatnam since April 1951.

MADRAS

In 1953, the Madras city power house equipped itself with a 15,000 kW set and is now installing another of 15,000 kW. Orders for yet another 30,000 kW plant to be obtained under the Technical Co-operation Mission are likely to be placed this year. To the other parts of the State, the Moyar hydro-electric station brought some relief through its 36,000 kW capacity in 1953. An additional 7,000 kW hydro-electric unit began working at Papanasam in 1951 and a 14,000 kW steam station at Madurai. Additional plant consisting of two 13,600 kW sets has been commissioned at Pykara this year. The Periyar hydro-electric project which will, to begin with, have three 25,000 kW sets, has also been recently sanctioned for execution.

MYSORE

In Mysore, an increase of 72,000 kW was registered under Stage II of the Jog power station in 1952. The power houses envisaged under the Tungabhadra project, one near the dam site, and the other on the canal, each having two sets of 9,000 kW will

in 1957 supply power to Bellary district and to Andhra. Plans are afoot to take up the Honnemaradu project (12,000 kW initially).

PUNJAB & PPSU

Punjab's power capacity will be augmented by supplies from one of the two stations of Nangal project, each of which will have an initial capacity of 48,000 kW. A network of transmission lines and substations is being laid throughout the Punjab, PPSU and parts of Rajasthan. PPSU will receive this power towards the end of this year.

TRA-COCHIN

The Madupatty Dam in Travancore-Cochin, meant to impound water so

that the firm capacity of Pallivasal power house can be raised, is scheduled to be completed by 1955. This year at Sengulam 48,000 kW will be generated. In 1955, three 8,000-kW sets, parts of which are now being delivered at Poringalkuthu, will go into operation. Travancore-Cochin will soon help relieve power shortage in Madras by about 20,000 kW when the transmission line from Pallivasal to Udumalpet is completed.

With this picture of power prospects throughout the length and breadth of the country, the hope can reasonably be expressed that the pace of industrialisation in urban and rural areas and provision of amenities long denied, will be fairly rapid.

SEAMLESS STEEL TUBULAR POLES

FOR OVERHEAD TRANSMISSION LINES FOR ELECTRIC LIGHT & POWER

From stock and Incoming consignments.

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MILANO, ITALY.

Agents: **FRANCIS KLEIN & CO., (BOMBAY) LTD.**

Shale Building, Bank Street,

Fort, Bombay.

The role of advertising in business*

BY R. PARTHASARATHY

ALTHOUGH the word advertising is frequently heard in conventions and conferences of businessmen, it is doubtful if many businessmen care to investigate its commercial significance.

As some one once put it, a business man will shave with an advertised blade, first thing in the morning, use an advertised soap, read an advertised newspaper, drive to his office in an advertised car, use in it a very much advertised lubricant, and will turn down a sound advertising proposition, all because he doesn't believe in advertising!

For this pig-headed attitude, the advertising man has himself to thank—largely. "The fault, dear Brutus, is not in our stars, but in ourselves that we are underlings". It is somewhat ironical that a profession which lives by selling—or at least by trying to sell—the products of others has not made any serious attempts at selling itself.

WHAT IS ADVERTISING?

Be that as it may, every business has something to sell—it may be a product or it may be a service. It may be soaps or sulphur drugs, or it may be insurance or airline travel. Selling is

fundamental to business, and so is advertising to selling.

It is, however, difficult to define advertising in a few simple words. The dictionary meaning of advertising as the art of making known, is basically correct—although it does not fully bring out all that advertising really means to business. Endorsement for this definition has, however, come from a company which bulks very much in India's advertising life, and is a sizable part of it. Not long ago, this company, declared in one of its own announcements. "The *cliche* that the object of advertising is to sell, is a silly statement and a dangerous one. It would be just as wise to say the object of manufacturing is to sell. The object of manufacturing—for instance—vacuum cleaners is to clean. The object of advertising them is to make their cleaning ability known. This is the direct and only object of advertising".

Advertising in the sense of "to make known" is really as old as history, but still the advertising man will be well-advised to eschew tall claims. For instance, it would be absurd to say that a simple Roman inscription like "The gladiators will fight at noon" is really the ancient version of a modern

* Being an address to the Commerce Association, National College, Tiruchi.

display advertisement. For one thing, critics of advertising would chuckle that a salient feature of our civilization could find a parallel only in Rome's decadence !

HISTORY

Advertising, as we know it to-day, goes back only to the latter half of the seventeenth century. In this period, news-sheets first made their appearance in England and from them evolved newspapers. Along with articles appeared advertisements, more or less on the lines we know them to-day, but the copy was very much crude, rather verbose, and reeked with insincerity. For example, an advertiser claimed for coffee in an issue of the *Public Advertiser* (1657) virtues that even a confirmed South Indian addict would hesitate to make for it ! Among other things that he claimed for coffee was that it was "good against Eyesores, Coughs or Colds, Rheums, Consumption, Headaches, Dropsie, Gout, Scurvy and King's Evil".

As C. F. Highnam, the author who quotes this extract, remarks: "It was, and is, alas, such idiotic exaggerations that cast a stigma upon advertisement from which it is not yet wholly free." In the latter part of the eighteenth century and the beginning of the nineteenth, it would appear, that space-buyers, for the most part, were quacks and charlatans who tried to palm off spurious drugs on a swallowing public. Up to the beginning of this century, a Press advertisement was but a dull recital of the advantages of the merchandise offered for sale. Only in the period between the two World Wars, advertising really

came into its own. Of course, advertising agencies came into being before 1914, but only in succeeding years, they grew and multiplied. In this country, agencies are said to have started functioning around 1934.

PRESS ADVERTISING

Press advertising is but one type of advertising, although it is, perhaps, the most important one. There are various other media, but before we consider them, let us for a moment take a quick glance at Press advertising. By the Press of a country is meant its various newspapers, journals and periodicals—dailies like the *Hindu*, the *Statesman*, *Dinamani*, etc., weeklies like the *Illustrated Weekly of India*, trade journals like *Automobile News*, the *Electrical Trader and Contractor*, and so on. The Press in this country is divided into English papers and the Indian language papers. An advertising campaign to be effective will have to be produced at least in 14 languages. Even then only about 10 per cent of the population will have been reached. Press advertising is far too complex and a ramified subject that to go into its technicalities would be to turn the spotlight only on one aspect of advertising. But please bear in mind this basic fact—namely, that the time you take to glance through an advertisement hardly bears any proportion to the time and trouble taken to prepare an advertisement. The copy or the advertising text reads so easily, so effortlessly, as not to bear any trace of the creative travail behind it.

RADIO ADVERTISING

A medium which is increasingly coming to the fore is the Radio.

According to figures available, there are 12,000,000 radio sets in the country. On an average, five people are said to listen to one set. It would appear that out of the 500,000 sets tuned in at any given time at least 100,000 sets are tuned in to Radio Ceylon. This is not surprising as there is no accounting for adolescent tastes ! To put it charitably, the *penchant* of college-going youth for film music and quiz and similar programmes is an understandable enough weakness.

In our own home, as in most homes, I believe, purchases are made by the distaff side, and the only visible reaction of this side to commercial "plugging" is a violent gnashing of the teeth and the heaping of a very comprehensive but dread course on the product, the sponsor and the announcer ! Personally speaking, again, I give the same respectful attention to the lilting tunes of Lata Mangeshkar as I give to the honeyed words on hair-restorers—not because I am afraid my hair would fall out if I did not use a particular cream, but because I have a professional interest in advertising. But I must mention, however, that unless the "pluggers" are going to mend their radio manners and stop being overbearing, arrogant, patronising or downright silly, they would drive listeners stark, screaming mad, and they would scream things which would definitely be unprintable !

Then there is what is known as poster advertising. A poster tries to tell a story from a hoarding or a platform or a bus or a tramcar.

And then we have other forms of printed matter, such as folders,

brochures, leaflets, booklets and other publicity material like show-cards, cartons, reminder advertising like blot-ters, calendars and diaries, sales letters, house magazines, and such-like.

IS ADVERTISING NECESSARY?

The gentle art of business lies in persuading people into accepting that you have something to offer them, either goods or service, which they need and which you can supply. But, by itself, advertising is no magic wand, and although brilliant advertising copy can fool some of the people all of the time, and all of the people some of the time, cannot fool all of the people all of the time. A large-size advertisement in the morning paper might make women queue up for a particular brand of soap or toilet-aid, but to make them return to the shops, the product advertised must have an intrinsic worth. Before advertising is condemned as a wasteful form of expenditure, a business must ask itself a few searching questions.

(1) Have we a good product or service to sell ?

(2) Have we been spending our advertising appropriation wisely ?

There is an element of risk in every business venture. This is, also, true of advertising. If a company has a good product to offer, has analysed its market properly, its distribution machinery is sound, has set apart an adequate enough advertising appropriation, and the job of advertising itself is in the hands of a competent agency, advertising will certainly yield results. A necessary factor in the scientific distribution of merchandise, advertising is

Pudukottah, Tiruvarur, Tirupathi and Tirur. The Trichy Mills, Dalmia Cement and Mettur Chemicals (Pudur Vanaspati) are other companies who have all, on occasion, generously availed themselves of his assistance on the electrical side.

Among Mr. Chari's several achievements must be mentioned in particular his laying out a test bench—and the necessary procedure—for the testing and calibration of energy meters. Indeed, the entire Meter Department was organised by him, and remained in his charge until 1944.

Mr. Chari's two "technical" heroes are the late Mr. R. Seshasayee and the late Mr. T. S. Ramachandra Iyer, Superintending Engineer. He worships both of them this side of idolatry and frankly admits that to them he is vastly indebted for his own knowledge.

Chari was promoted to the position of Assistant Engineer, Maintenance, in 1936 and to that of Resident Engineer, Maintenance, in 1938. During the years 1944-48, he was in charge of several rural stations and from 1948 June onwards, he has been our Workshop Engineer.

Mr. Chari is an Honorary Magistrate and an ardent Theosophist. His two great interests in life are agriculture and electronics—radio sets and cinematography equipment. He is also, the inventor of a power-driven betelnut cutter, and a vermicelli-making press.

A genial and cheerful personality—cheerful in the Addisonian sense of not being unduly elated on account of

successes nor being unduly depressed on account of failures or disappointments in life—Chari is a friend whom it is a rare pleasure to know.

J. SESHAN

One of our most capable and conscientious employees, Mr. J. Seshan, Junior Engineer, Operations, joined the Corporation on February 1, 1929. He is the holder of a Madras Government diploma in Light and Power.

The late Mr. T. S. Ramachandra Iyer was always unstinted in his praise of the good work of Mr. Seshan. Our Deputy Chief Engineer, Mr. H. K. Ramaswami, has also left on record his appreciation of the expeditious and efficient manner in which Seshan—along with V. Sivaswamy, Junior Engineer, H. T. Mains—handled the job of the conversion of the dual ratio-transformers at Karaikudi receiving station into single ratio units.

In the erection of transformers, switch-board panels, generators, etc., Seshan is particularly adept. On such work he has been deputed by us to other organisations like the Mettur Chemical and Industrial Corporation Limited, Mettur Dam, the Elphinstone Spinning and Weaving Mills, Limited, Bombay, the Indian Rare Earths, Limited, Alwaye, and the Electro-Chemical Research Institute, Karaikudi.

Seshan is rather a quiet and modest type of person. His favourite game is volleyball, but in recent years he has become more and more of a spectator sportsman—watching others play (bad) bridge or (good) caroms!



*Lieut. P. V. G. Menon with his bride
Miss Parvati, daughter of Mr. P. R. Panicker, Madras Office.*

P. V. RENGASWAMI

P. V. Rengaswamy, Rengudu to his many friends, joined the Corporation on December 1, 1928. After a service of four years in different capacities, such as Assistant Storekeeper, Purchase Clerk and Engineering Clerk, he was posted to the Revenue Department in August 1932. He is now one of our senior Bill Clerks.

Devoted to his duty and acutely sensible of the obligations of the Corporation as a public utility, Rengudu always tries to do his best, willingly and cheerfully.

If we have a visitor to show round Trichy or have a document to be registered or some such job, our choice invariably is Rengudu.

Witty, well-informed and worldly wise, Rengudu is ideal company particularly for idle moments.

Opinion may not be unanimous about his musical abilities, but it is—

about his histrionic talents. His role as Nagalakshmi Ammal in our Silver Jubilee play *Kalyani* is still vivid in our minds. As barber and barrister he took the second prize in Fancy Dress last year and this year, respectively!

M. VENKATARAMAN

Mr. M. Venkataraman, Bill Collector is a former Village Munsiff and stamp-vendor. No less a person than Mr. K. P. S. Menon, I.C.S., our Ambassador at present to Russia—and a former Sub-Collector at Tiruchirapalli—has testified to Venkataraman's smartness and intelligence.

Venkataraman joined the Corporation as an electrical Maistry in its very early days circa 1927. He also assisted the company in canvassing shares and finding consumers for it. A loyal and efficient servant, he has earned both our affection and gratitude.

T. SHANMUGAM

Shanmugam joined the company as an office boy in 1928. A patient,

persevering and quiet type, he has a good service record.

An affectionate father, he has himself been taking care of his two daughters, after the sad demise of his wife about twelve years ago. He is a very devout and religious person and you will always find on his forehead the sacred ash of the pious *Saivite*.

Congratulations and good wishes:

Recent weddings of special interest to us were those of:

(1) Miss Parvati, daughter of Mr. P. R. Panicker of our Madras Office, with Lieut. P. V. G. Menon,

(2) K. Natarajan, *Workshop*, with Miss Lakshmi,

(3) V. Srinivasan, *Sales, SMA*, with Miss Thaiyanayaki,

(4) S. Rajagopal with Miss R. Sundaravalli, daughter of Mr. S. N. Rengaswami, *Shares*,

(5) T. S. Srinivasan, *Meter Department*, with Miss Padmavati,

(6) K. Ganesan, son of T. Karupiah, *Junior Engineer*, with Miss Anandavalli,

(7) S. Dandapani with Miss M. Lalitha, daughter of Mr. S. Halasyam, *Engineering*, and

(8) K. Vittalraman, *Telephones*, with Miss Saroja.

Our congratulations and good wishes go to all these couples.

Our best wishes, also, go to the following youngsters whose *upanayams* were celebrated recently:

(1) R. Ramanathan, son of P. N. Raman, *P. A. to Dy. Chief Engineer*,

(2) S. Sivaraman, son of T.S. Sethuraman, *Accounts*,

(3) K. Subramanian and K. Vaidyanathan, sons of N. S. Krishnan, *Supervisor*, Koothanallur, and

(4) B. Ramachandran and B. Ramani, sons of N. Balasubramanian, *Establishment*.

St. John Ambulance Brigade:

On August 4, Rajakumari Amrit Kaur, Union Minister for Health, and the Chief Commissioner of the St. John Ambulance Brigade, inspected two Divisions of the Corporation at a local presentation ceremony.



Mr. M. Dandayuthapani, Divisional Superintendent, being presented to Union Minister for Health.

RECREATION ROUND-UP

"I AM glad to note that Mr. V. Seshasayee himself is the Life President of the Association. An Association like yours is a joint and co-operative effort between labour and management, and is, as it should be," declared Mr. M. Bhakthavatsalam, Minister for Agriculture and Labour, presiding on the occasion of the "Staff Day" celebrations of the SME Staff Association on August 22.

The Minister further stated: "An attractive feature of your activities is that instead of remaining content with your own participation in games and sports and awarding prizes to yourselves, you are also giving an opportunity to your children for participation in sports activities. Children are even fonder of sports than adults, and I am very pleased to note that they have been given a chance."

The objectives of the Association—physical well-being and cultural advancement of members—though simple were laudable, Mr. Bhakthavatsalam said.

Earlier, after an invocation song by Kumari P. V. Lalitha, daughter of Mr. P. P. Venkatasubramaniam, Secretary, Seshasayee Bros. Limited, Mr. R. Parthasarathy, Vice-President, welcomed the gathering.

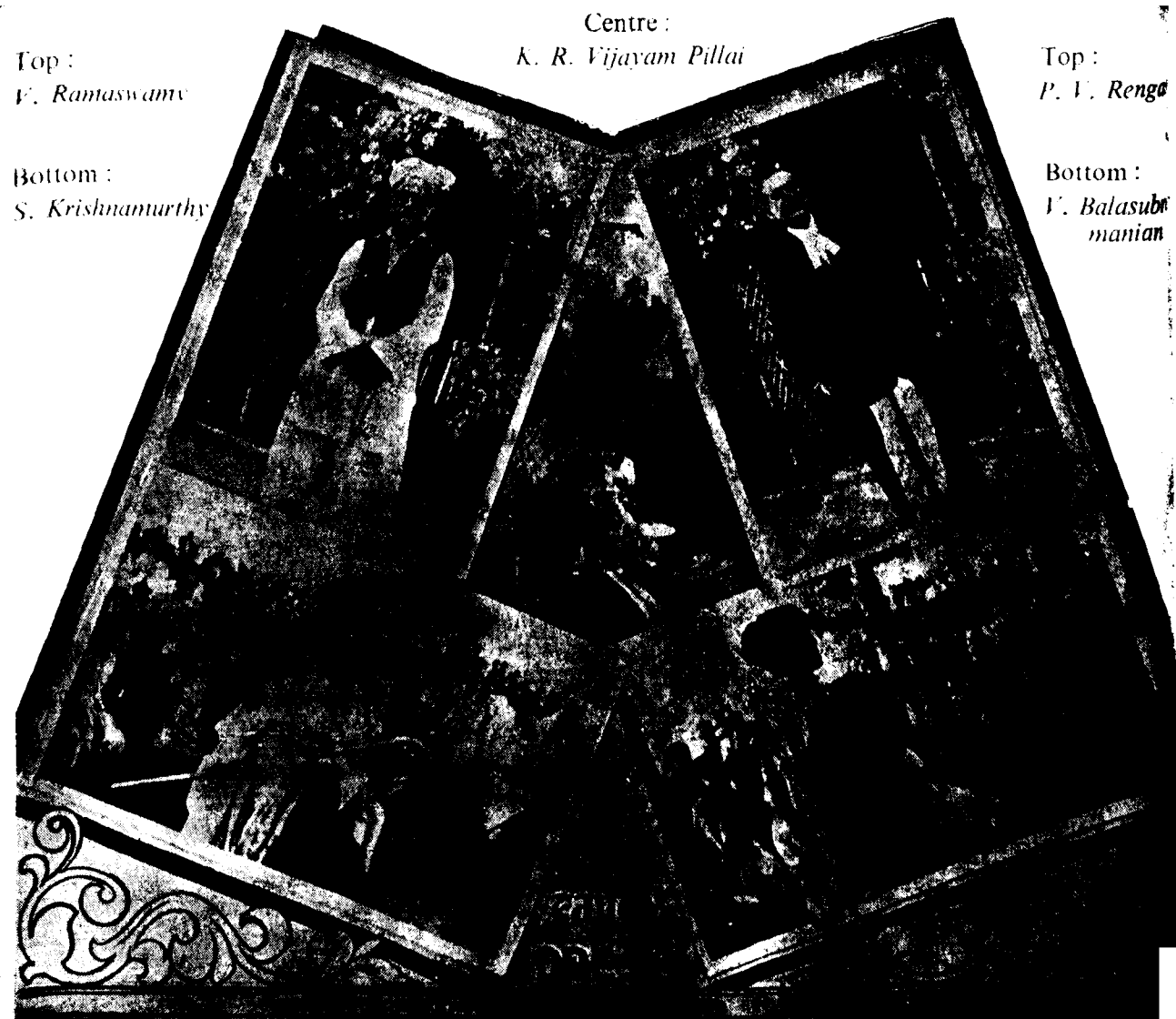
Mr. Parthasarathy said: "This is, indeed, a red-letter day in the annals of the Association. All these years the Association has been celebrating its annual day more or less as a domestic function. For the first time in its history, the Association is having a high dignitary of the State for its chief guest."

Continuing, he said: "With our company and its activities, you have long been familiar. You have, always, readily assisted the Corporation in its efforts to extend supply to rural areas."

Mr. Parthasarathy went on: "Man does not live by bread alone," as the Bible put it long ago. Energy must find an outlet in sports and pastimes, and relaxation should necessarily be sought in the reading of books and magazines."



R. Santanam, Hon. Secretary, reading the Annual Report



Top :
V. Ramaswamy

Centre :
K. R. Vijayam Pillai

Top :
P. V. Rengaswamy

Bottom :
S. Krishnamurthy

Bottom :
V. Balasubramanian

Presenting the Annual Report, Mr. R. Santanam, Hon. Secretary, stated that in the year under report there was initially a spectacular rise in membership, but latterly there had been a decline in strength. As in previous years, he continued, entertainment of a varied kind was provided. Magic and puppet shows, music and dance recitals and pictures constituted the fare offered, he said.

As the Secretary finished reading his Report, the Fancy Dress competitors showed up one after another.

First to decant himself on an unsuspecting audience was V. Balasubramanian, Maintenance. As a megalomaniac with a competition complex, he showed himself to great advantage. Closely on his heels came S. Krishnamurthy, Workshop as a *kudukudu* (rattle) soothsayer. And then came K.R. Vijayam Pillai, Meter Department made up as an attractive gypsy girl—and wriggling from base to apex with a positive girlish enthusiasm. His dress was fancy, so also were the prices that he quoted for his cutlery pieces! But the judges fancied most V. Ramaswamy,

STAFF DAY CELEBRATIONS—SPORTS

LIST OF PRIZE-WINNERS

VOLLEYBALL

WINNERS

S. Sundaram
J. Natesan
S. Narayanan
S. K. Swaminathan
R. Ramamoorthy
K. Gangadharan
N. Sundaram

RUNNERS

R. Sivanandham
A. V. Rajaraman
T. S. Sethuraman
J. Mahalingam
K. V. Ramanujam
K. Balakrishnan
T. V. Subramaniam
A. K. Renganatha Thathachari

BADMINTON FIVES

J. Natesan
M. Kuppu
P. N. Krishnaswami
R. Subburathnam
S. Krishnamurthy

S. Sundaram
T. V. Muthukannu
M. A. Sundararajan
R. Venkataraman

TABLE TENNIS (SINGLES)

P. Rengaswamy

K. V. Mahalingam

CAROM DOUBLES

P. Rengaswamy
M. R. Krishnan

Y. K. Rengachari
S. Srinivasan

CHESS

R. Parthasarathy and T. A. Radhakrishnan

AUCTION BRIDGE

R. Parthasarathy and
P. N. Raman

N. Venkataraman and
A. K. Ramiah

QUIZ

J. Gopalan I

V. R. Venkataraman II

E. G. Subramanian III

CHILDREN'S SPORTS

Musical Chairs (Boys)

A. Natesan
S/o S. Angamuthu.

G. Gopalan

S/o K. Gangadaran.

(Girls)

S. Kanchana
D/o P. Subburathnam.

K. Kamala

D/o B. V. Kuppuswami.

Lime & Spoon (Senior)

K. N. Chandramouli
S/o K. S. N. Sarma.

S. Ramadurai,

S/o P. Subramanian.

(Junior)

A. Natesan
S/o S. Angamuthu

K. N. Swaminathan

S/o K. S. N. Sarma.

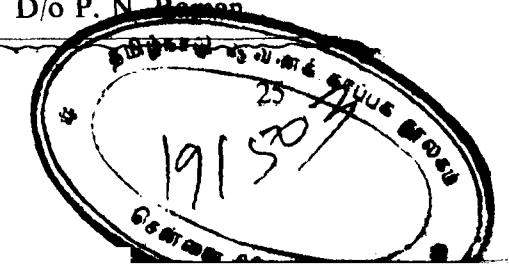
Thread & Needle (Girls)

S. Kanchana
D/o P. Subburathnam.

R. Bhuvaneswari

D/o P. N. Raman

DL
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N. Balasubramanian and
R. Santanam in a scene from
Magudapathi.

Publicity, who was practically unrecognizable as a *Pathan* moneylender. Tall and well-built and clad in the traditional costume of a Frontier tribesman—loose pyjamas, long shirt, waistcoat and turban—Ramaswamy looked the last person any creditor would like to run into in a dark alley. A first prize-winner for seven years in succession, he easily overshadowed the rest of the competitors.

P. V. Rengaswamy, Revenue, who turned up as a barrister, and who was awarded the second prize, gave convincing proof of his ability to talk. In an ex-barber, (his prize-winning act of last year) this gift of the gab was not at all surprising!

Mr. R. Santanam proposed a vote of thanks.

Mr. Bhakthavatsalam was, also, the guest of honour at the dinner held later. Having had to catch a train, he could not, unfortunately, be present for the play put on boards by employees afterwards.

Magudapathi, the play, is an original story by "Kalki", dramatised by "Kuzhalan", a local playwright.

A review of the play appears in our Tamil Section.

Pictures :

Pictures screened in recent months included :

Tarzan and the Slave Girl, You can make a million, Trading Post, Joan of Arc, and Treasure Island.

(contd. from page 27.)

Chairman of the International Service Committee of the Rotary Club of Tiruchirapalli and Hon. Secretary of the Institution of Engineers (India), Tiruchi Paper Centre, Sankaran is often in demand as a speaker by local organisations and colleges.

Since the war ended, the Corporation has been putting through an intensive programme of rural development, and the benefits of electric supply have been taken to several outlying villages. The responsibility of implementing this programme has largely rested on Sankaran, and we hand him bouquets for lightening life's little loads in many rural premises. Here's wishing him all luck personally, and also in his efforts to spread electricity further and farther.

OUR PEOPLE

* * * S. SANKARAN.



S. Sankaran.

A former student of the American College, Madura, and an engineering graduate of the Banaras Hindu University, Mr. S. Sankaran, Superintending Engineer, joined the East-Tanjore Electric Supply Corporation, Limited, as an Assistant Engineer, H. T. Mains and Meters, back in 1934. As a prelude to this appointment, he served a period of apprenticeship in Tirupati (under the late Mr. R. Seshasayee) in the erection and maintenance of diesel engine sets.

In 1936, Sankaran had again to proceed to Tirupati to work for the Tirumalai-Devasthanam Electricity Department, as a lent officer of the Corporation. A result of this service

was the continuation of Messrs. Seshasayee Bros., Limited, as Consulting Engineers of the Devasthanam for yet another term—its efficiency of supply had to be improved, and the switch-over to hydro-electric supply arranged.

In December 1940, Mr. Sankaran was transferred as Resident Engineer to Mayavaram, and from there, in 1943, to Tiruvarur in the same capacity. In 1945, he was promoted as Engineer-in-charge of the East-Tanjore area. Early in 1947, he was transferred as Deputy Superintending Engineer to assist Mr. T. S. Ramachandralyer, Superintending Engineer, and after his unfortunate demise, in August of the same year, Mr. Sankaran assumed charge as Superintending Engineer.

Mr. Sankaran was awarded a fellowship by the United Nations Technical Administration in 1952 to study in the United States and Canada, methods of financing, administration, and power utilization, especially on farms and in small industries. He also toured Europe for a few weeks on the return journey home.

Mr. Sankaran is a good Sanskrit scholar and quite an authority on Carnatic music.

Good in his work and popular alike with members of this organisation and consumers, Sankaran is a past-master in the art of winning friends and influencing people.

(continued in page 26.)

Current TOPICS

COMMENTING on the revival of the demand for heavy electrical equipment reported by its Midlands representative, the *Financial Times* commented in an article: "It is clear that British manufacturers are fully determined to take the opportunity of finding their share in an expanding market. An average annual seven per cent increase in world electricity generation means that capacity will have to be extended if the United Kingdom is going to secure its shares of a widening market.

"The development of existing plans, which had previously been held back, means that the basis for such an expansion will be ready; the problem remains to make certain of it in an increasingly competitive market. It is here that the British industry has faced its chief difficulties in the past few years. The industry has had to contend in the past with price cuts, export incentives and extended credit from oversea competitors".

"None of these, however, can be maintained indefinitely on any basis of

sound financing, and even the difference in delivery times, which has in many cases been the worst enemy to British manufacturers, will even out as the order books grow longer. The present expansion plans of the main British companies engaged in heavy electrical equipment, at any rate, shows confidence in their ability to command their share of the market".

CANADIAN AID UNDER THE COLOMBO PLAN

Canada is providing 20 million dollars for India to construct the Mayurakshi hydro-electric and irrigation project in W. Bengal, it is reported.

The Indian proposal that Canadian Aid be allocated to the project has been approved.

Canadian Aid was provided under the Colombo Plan for economic assistance to under-developed countries.

Scheduled for completion next year, the project is expected to irrigate an average of 120,000 acres in the dry season.

TRANSFORMER FACTORY IN TRAVANCORE-COCHIN

Travancore-Cochin will soon have a transformer factory called the Indian Transformers, Limited, Alwaye. It is a public limited company in the private sector, with an authorised capital of Rs. 25 lakhs. This venture representing the ninth transformer factory to be started in India, has been undertaken with the help of a leading English firm. The new factory is expected to go into production within six months and will have a manufacturing capacity of 200 transformers a year. The entire output may be used in the State itself.

ELECTRICAL WIRING ACCESSORIES

According to a notification dated 31st March 1954 issued under the Indian Merchandise Marks Act 1889, the country of origin has to be marked on the containers or coverings or otherwise of "parts, spare parts and accessories of apparatuses and appliances, electric and all kinds".

It has been contended that a switch-plug though assessed as an electrical accessory cannot be called an accessory of any apparatus or appliance, and therefore it is treated as an electrical wiring accessory. It was proposed that in case of electrical accessories the markings should be on the goods themselves, and a notification inviting

objections to and suggestions on the proposal was issued by the Government of India on January 18, 1954.

It now appears from the representations received in this connection that such marking will not be feasible in all cases. It has, therefore, been decided that in the case of electrical wiring accessories, markings should be indicated on the containers or coverings or otherwise. A notification to this effect was issued in the Gazette of India dated May 29, 1954.

RAILWAY ELECTRIFICATION

In a debate in the Council of States, Shri Lal Bahadur Shastri, Minister for Railway and Transport, said that the Government of India would consider the question of electrification of about 500 miles of railways around Calcutta. This depended upon the availability of power with the execution of the river valley projects, Mr. Shastri added.

The Minister stated that while electrification required heavy initial expenditure, the railways would have to plan ahead, and examine various schemes to be put through on a programmed basis. For example, electrification could be undertaken of several sections of the Southern Railway and electrified sections on the Western and Central Railways could be extended.



POWER AND PROSPERITY—British Electricity Authority, London.

A nation's economic progress can indeed be measured by the expansion of electricity supply. The wider use of electricity increases industrial production and raises the standard of life.

THIS booklet which is a masterly survey of the progress of electricity supply in Great Britain gets off to a good start with the aphoristic statement quoted above.

In the year 1948, the entire electricity supply industry in Great Britain passed over to public ownership. The British Electricity Authority came into being as an autonomous body, under the Ministry of Fuel and Power, and this body is charged with the responsibility of planning, developing and operating the power stations and the inter-connecting grid.

Fourteen Area Boards deal with the problems of electricity distribution and utilisation in the areas under their control.

In the six years in which the Authority has functioned, installed plant capacity has gone up to 17,000 mW. Units sold rose up to 52,264 millions

of which 49.5 per cent was industrial, 31.1 per cent domestic, the balance being used by other categories of users. Per capita consumption has also gone up to 1,100 units with a total of 13.9 millions of consumers.

In the field of generation, special attention has been paid to plant design and operation, to achieve maximum utilisation of coal. From a thermal efficiency of 20.87 per cent in 1948, the figure has improved to 22.72 per cent in 1953 resulting in a saving of over 4 million tons of coal.

To enable the transfer of blocks of power from one end of the country to another, a 275-kV Supergrid is being developed. Such a scheme, when completed, would meet the probable system requirements of another 20 years. The towers are being so designed as to make the upgrading of the transmission voltage possible at a later date, if power requirements demanded such a change. An interconnection between the British and French National Grids by means of a 162-kV submarine cable is also being contemplated to take full advantage of the diversity in the peaks of the two systems. Since Vesting Day, the Authority has been giving urgent and continuing attention to the extension of supplies to rural

areas. In the six years, in which the Board has functioned, 49,000 farms have been connected to the public electricity mains, besides another 300,000 rural premises on existing distribution systems.

Research in problems relating to supply, fuel utilisation, improved generating and boiler plant, atomic power development, etc., and a study of utilisation equipment are all specific responsibilities with the Authority. Besides its own research department, the Authority co-ordinates with the Universities and bodies like the Electrical Research Association and the British Coal Utilisation Research Association.

Financing is done by the Board from its internal resources—depreciation funds and revenue surpluses—and from public borrowings on its own authority with the sanction of the Fuel and Power Ministry.

The booklet makes inspiring reading, and this reviewer hopes that planners in this country will give electricity the same amount of importance as a national asset, and strive to achieve what Great Britain has achieved so well and so quickly.

— H. K. R.

**(1) MATERIALS HANDLING IN INDUSTRY
(2) ELECTRIC RESISTANCE HEATING**

Published by the British Electrical Development Association, 2, Savoy Hill, LONDON.

THESE two books belong to the Electricity and Productivity series. Two of this series have already been noticed in the columns of this Journal.

Materials Handling has been written with the object of showing how better materials handling can lead to increased productivity.

Contrivances like slat conveyors and sack pilers can find applications only in industries having heavy materials to handle, and may not be of much interest to us in this country in its present state of development or under-development. But the need for such contrivances will arise once the country gets going on an intensive programme of manufacture of heavy machinery.

Construction engineers and engineers in heavy industries will find the book to be of special interest to them.

Published as the book is by the Electrical Development Association, it naturally shows how electrically-operated, mechanical handling equipment can increase productivity and decrease production costs.

* * *

Electric Resistance heating is primarily a book for the practising engineer, but it can be read with advantage by every one concerned in any manner with industrial production.

Starting with the advantages of electric heating and the fundamentals on which the theory of heat is based, the book proceeds to give examples of electric heating equipment of several types. The numerous illustrations contained in the book considerably add to its value.

— M. S. G.

SME SUPPLY NEWS

Tiruchi-Srirangam Area: On April 8, supply was rendered to a 25 h. p. rice mill in Parali, a village belonging to Rajendram Panchayat in Kulitalai Taluq. Besides this mill, 12 lighting services and 12 street lights were contracted for, but on the day of formal supply the rice mill—as already mentioned—and twelve street lights only were connected.

A short, high-tension, spur line (11 kV) for 210 feet was drawn off post No. 16 (Parali line), and a 30-kVA, pole-mounted transformer substation was erected. L. T. lines were drawn for 3200 feet. Fifty-pound rails and ACSR "Squirrel" (both for the H. T. and the L. T. lines) were used. The cost of this extension is approximately Rs. 10,600.

Sorathur, a village near Turaiyur, in the Musiri Taluq, received formal supply on May 27. Fifty agricultural pumpsets totalling 150 h. p. and twelve lighting services were to come up in all, but on the day of supply only ten pumpsets (30 h. p.) and six lighting services were connected. Supply to the village is off post No. 29 on the Turaiyur-Keerambur feeder—a 11-kV

high-tension, overhead, spur line for two miles and two furlongs was drawn. Fifty-pound, second-hand rails and ACSR "Gopher" were used. A four-mile L. T. line was also drawn with all-aluminium conductors—Pansy and Rose—the copper equivalents of No. 4 and 8 S. W. G.

The cost of the scheme is approximately Rs. 73,500. A loan of Rs. 20,000 was raised in the village.

At the brief function arranged on the day of supply, Mr. P. Rengaswami Reddiar M.L.A. who presided said that villagers should come forward to help themselves, then Government would come forward. The village lacked several elementary amenities and the residents should put their shoulders to the wheel in the provision of good motorable roads, he added.

Mr. H. K. Ramaswami, who switched on the supply, said that the Corporation was keen on doing its share of "good works" in rural areas and that he was grateful to the residents of Sorathur for all the understanding and co-operation they had shown. Paying a tribute to the leadership of Mr. P. Rengaswami Reddiar, Mr. Ramaswami said, that in Mr. Reddiar, the villagers had a true friend and well-wisher.

East-Tanjore Area: Thiruvaimur village in Nagapattinam Taluq was given supply on April 13,

A short, 11-kV, high-tension spur line for 320 feet was drawn off post No. 106 on the feeder to Thalanayar. A single-phase, 5-kVA pole-mounted transformer was erected. A single phase low-tension, overhead line for 680 ft. was drawn from the substation to feed the Devasthanam Temple and half-a-dozen lighting services. The cost of the scheme is around Rs. 4,250.

ACSR "Squirrel" conductors, both for the H. T. and the L. T. lines, were used with fifty-pound, second-hand rail posts.

Another village in Tanjore District to receive supply was Adambar in Nannilam Taluq. To start with, supply was given to a 10 h. p. rice mill on

June 20. A spur line for 100 ft. was tapped off post No. 150 on the Northern Ring Main from Tiruvarur. A 10-kVA, pole-mounted transformer substation was erected and supply was given to the mill.

The cost is about Rs. 4,500. ACSR "Gopher" conductors were used with fifty-pound, second-hand rail posts.

Industrial and agricultural services connected in the quarter are as follows:

Area	Industrial	Agricultural
Tiruchi—		
Srirangam	138 h. p.	207 h. p.
East-Tanjore	18 "	94 "
East-Ramnad	15 "	43 "

MUNICIPAL EXHIBITION

The South Madras Agencies, Limited subsidiary of the Corporation, participated in the Municipal Exhibition held in Tiruchi in April-May.

On display were samples of the several electrical accessories and articles sold by the company. Picture shows the SMA stall with some members of the staff who were in charge of it



எலக்ட்ரோஸ்ட்

தமிழ் அநுபந்தம்

எங்கள் பட்டரை
ஏ. வி. சாரி
(Workshop Engineer)

நமது அன்றாட வாழ்க்கையில் கலந்து நின்று நம்மை முன்னேற்றுவதற்கும் சக்திகளில் மின்சாரம் முதன்மையானது. வரவர மின்சாரத்தின் உபயோகம் அதிகரித்து வருகிறது. ஆலைகளில் இயந்திரங்களை ஓட்டவும், வீவசாய நிலங்களுக்குத் தண்ணீர் இறைக்கவும், வீடுகளிலும், தெருக்களிலும் இருட்டை அகற்றி வெளிச்சம் தரவும் மின்சாரம் இன்று பேருதவியாக இருக்கிறது.

உற்பத்தியாகும் மின்சார சக்தியைப் பல இடங்களுக்கும் கொண்டு சென்று மக்களுக்குப் பயன்படுத்தும் பணியில் ஈடுபட்டிருக்கும் பொதுநல ஸ்தாபனங்களில் தென்சென்னை மின்சார விறியோகக் கார்ப்பொரேஷனும் ஒன்று.

தான் இருக்கும் இடத்தை யாரும் அறியாமலும், தன்னை அணைவரும் உணரும் படியும் பரவியுள்ள மின்சார சக்தி இழைந்து வருவதற்கான கம்பிகள், மின்சாரத்தைக் கடத்தும் கம்பிகளைத் தாங்கி நிற்கும் உறுதியான பிராக்கட் பட்டங்கள் (Brackets) ஸப்ஸ்டேஷன்களுக்குத் தேவையான அமைப்புகள் (Sub-station structures) போன்ற உபகரணங்களைத் தயாரிக்கும் பட்டரை (Workshop) மின்

சார விறியோகஸ்தாபனத்துக்கு மிகவும் அவசியம். பட்டரை, ஸ்தாபனத்துடன் இணைந்திருப்பதால், தேவையான பொருட்களைக் குறித்த கால அளவில் உற்பத்தி செய்ய இயலும்.

நமது கார்ப்பொரேஷனிலும் இவ்வித பட்டரையொன்று ஏற்படுத்தப்பட்டிருக்கிறது. ஆதியில் கார்ப்பொரேஷன் எண்ணெய் இயந்திரங்களின் (Oil Engines) உதவியுடன் 2000 குதிரை வேகம் (Horse-power) உள்ள மின்சாரத்தை உற்பத்தி செய்தது. மேற்படி, இயந்திரங்களில் ஏற்பட்ட சிக்கல்களைப் பழுதுபார்க்க பட்டரை நிறுவப்பட்டது. அப்போது பட்டரையில் சுமார் ஆறு பிட்டர்களே (Fitters) வேலை செய்தனர்.

ஆரம்பத்தில் ஆட்களால் நடத்தப் பட்ட உலை (Forge) இரும்பைத் துண்டாக்கும் கருவி, (Iron Cutter) துவாரமிடும் கருவி, (Drilling Machine) பிடி கொள்ளும் கருவிகள், (Vices) மற்றும் முடுக்குவதற்கும், இழைப்பதற்கும், ராவுவதற்கும், உபயோகப்படும் கருவிகள் முதலியவைகளை எங்கள் பட்டரையில் நாளடைவில் மின்சாரத்தின் உதவி கொண்டே ஓட்ட ஆரம்பித்தோம்.

பட்டரையில் செய்யப்படும் பல்வேறு சாமான்களில் சில :

பொதுமக்களின் மின்சாரத்தேவை அதிகரித்ததற்கேற்ப பட்டரையில் பல ரக சாமான்களைத் தயாரிக்க வேண்டியதாயிற்று.

பிராக்கட்டுகள் (Brackets)

கிராமங்களிலும் நகரங்களிலும் பெரிய போஸ்டுகளில் உபயோகப்படுத்தப்படும் பிராக்கட்டுகளை (Cross-arm Brackets) பட்டரையில் செய்கிறோம். இந்த பிராக்கட்டுகள் மின்சக்தியைக் கடத்தும் கம்பிகளைத் தாங்கி நிற்கும்.

சர்க்காரின் மின்சார இலாகாவிலிடமிருந்து (Hydro-electric Department) பெறும் 22 kV (அழுக்குசக்தி) கொண்ட மின்சாரத்தை, மின்சாரத்தைக் கடத்தும் கம்பிகளின் வழியாக ட்ரான்ஸ்பார்மர்களுக்கு மாற்றுகிறோம்.

கொள்ளிடம் காவேரி ஆகிய நதிகளுக்குக் குறுக்கே பெரிய போஸ்டுகளை நட்டு இந்த ஆறுகளுக்கு அப்பால் உள்ள இடங்களுக்கு மின்சார வசதி அளித்து வருகிறோம். இந்த போஸ்டுகளில் நமது பட்டரையில் தயாராகும் பிராக்கட்டுகளை உபயோகப்படுகின்றன. மேலும் தெரு விளக்குகளில் உபயோகப்படுத்துவதற்கென்றே எமது பட்டரையில் செய்யப்படும் தனி ரக பிராக்கட்டுகளைப் (Street Light Bends) பல நகரசபைகளும், பஞ்சாயத்து போர்டுகளும், மற்ற கன்ஸ்யூமர்களும் பெரும் அளவில் வாங்கி பயன்படுத்தி வருகிறார்கள்.

ஸப்ஸ்டேஷன் ஃபென்சஸ் (Sub-station Fences)

நகரங்களில் ஆங்காங்கு சிறு ட்ரான்ஸ்பார்மர்கள் நிறுவப்பட்டிருப்பதை நீங்கள் பார்த்திருப்பீர்கள். பாதுகாப்பிற்காக அவைகளைச் சுற்றி அரைக்கால் அங்குல முதல் அரையே அரைக்கால் அங்குலம் வரை கன அளவுள்ள இரும்புக் கம்பிகளால் வேலிகள் போடப்படுகின்றன. இந்த இரும்பு வேலிகள் பட்டரையில் செய்யப்படுகின்றன.

ஸ்டே ராட்கள் (Stay rods) :

பல மின்கடத்திகள் கூடும் போஸ்டுகள் பூமியின் ஒரு பக்கத்தில் சாயாமல் நிமிர்ந்து எதிர்வலுவூட்டும் ஸ்டே ராட்களும் தயாரிக்கப்படுகின்றன.

அடித்தட்டுகள் (Base Plates) :

மின்சாரப் போஸ்டுகள் உறுதியாக நிற்கும் பொருட்டு அவைகளின் அடிப்பாகத்தில் (பூமிக்குக் கீழே) எங்கள் பட்டரையில் செய்யப்படும் தனி ரக பிளேட்டுகள் பொருத்தப்படுகின்றன.

எர்த் குழாய்கள் (Earth Pipes) :

சில சமயங்களில், எதிர்பாராத வண்ணம் மின்சாரம் இரும்பு போஸ்டுகளின் வழியாகத் தப்பிப் பாய்ந்து (Current leakages) அந்தப்போஸ்டுகளைத் தொடுவோரின் உயிருக்கு ஆபத்தை விளைவிக்கக் கூடும். இந்த அபாயத்தை நிவர்த்திக்க மின்சக்தியைப் பூமியினுள் செல்லும்படிச் செய்யவேண்டும்.

வலிவுள்ள இரும்புக் குழாய்களுக்குள் செப்புக் கம்பிகளைப் பதிவுசெய்து இந்த குழாய்களை போஸ்டுகளின் அருகில் பூமியில் புதைத்து விடுவார்கள். பூமிக்கு அடியில் இருக்கும் குழாய்களிலுள்ள கம்பிகளின் ஒரு நுனி, மின்சாரபோஸ்டுகளின் 'எர்த்' கம்பிகளுடன் இணைக்கப்படும். இவ்வித ஏற்பாட்டினால் மின்சாரம் தப்பிப் பாய்ந்தாலும் அது ஆபத்தை விளைவிக்காமல் பூமியினுள் செல்ல ஏதுவாகும். இக்குழாய்கள்தான் 'எர்த் குழாய்கள்' பட்டரை செய்யும் பலரக சாமான்களில் இதுவும் ஒன்று.

விவசாயப் பம்பு செட்டுகளின் பாகங்களை ஒன்று சேர்த்தல் :

பூமி மட்டத்திற்குக் கீழேயுள்ள தண்ணீரை மேலே கொண்டு வந்து பயிர்களுக்குப் பாய்ச்ச விவசாயப் பம்பு செட்டுகள் உபயோகிக்கப்படுகின்றன. இந்தப் பம்பு செட்டுகளின் தனித்தனியான பாகங்களை நாங்கள் ஒன்று சேர்க்கிறோம்.

இது தவிர மின்சார வழியடைப்பு சாதனங்களும் (High tension and Low tension gang switches and fuses) தயாரிக்கப்படுகின்றன. இவை அரசாங்கத்தின் அங்கீகாரம் பெற்றவை.

பட்டரையில் அலுவல் புரியும் சிப்பந்திகள் :

பிட்டர்கள், கருமான்கள், இரும்பு வெல்டிங் வேலை செய்வோர், டிரில்லிங் மெஷின்களைக் கையாளுவோர், இரும்பை வெட்டும் மிஷின்களை இயக்குவோர், பெரிய பவர் ஸ்விட்ச்களை (Gang switches) தயாரிப்போர், லேத் இயந்திரத்தில் வேலைசெய்வோர் ஆகிய பலதரப் பட்ட சிப்பந்திகள் பட்டரையில் வேலை செய்கின்றனர். இவர்கள் ஊக்கமுடன் உழைக்கவும், பாதுகாப்பு முறைகளை (Safety Methods) அனுஷ்டிக்கவும், தாமதமின்றி, தேவையான பொருட்களைத் தயாரிக்கவும் பட்டரையின் போர்மேன் (Foreman) பொறுப்பாயிருக்கிறார். இவர்கள் அனைவரும் ஒருவருக்கொருவர் பரஸ்பர ஒத்துழைப்புடன் வேலைசெய்யவும், பட்டரையின் அன்றாட நிர்வாகம் சரியாக நடைபெறவும், மொத்தத்தில் பட்டரையின் முழுப்பொறுப்பும் எஞ்சியிராகிய என்னைச் சார்ந்தது.

1928ம் ஆண்டில் சுமார் ரூ. 12000க்குத் தளவாடங்கள் செய்துவந்த எமது பட்டரை இப்போது சுமார் ரூ. 20 லட்சம் மதிப்புள்ள சாமான்களைச் செய்கிறது. இந்தப் பட்டரையில் தயாராகும் பொருட்கள் எல்லாம் எங்கள் கம்பெனியே உபயோகித்துக் கொள்கிறது. பட்டரையில் தயாராகும் தளவாடங்கள் அதில் வேலை செய்யும் சிப்பந்திகளின் திறமைக்கும், உழைப்பிற்கும் ஓர் எடுத்துக்காட்டு.

எதிர்காலத்தில் மின்சாரம் சம்பந்தப் பட்டவரை அயல் நாட்டினரின் உதவியைச் சிறிதும் நாடாமல் விவசாயத்திற்கும், இயந்திரங்களுக்கும் தேவையான தரமுள்ள கருவிகளை குறைந்த விலையில் தயாரித்துப் பொது மக்களுக்கு மேன்மேலும் தொண்டு புரிய இது எமக்கு ஊக்கம் அளிக்கிறது. “இரும்பைக் காய்ச்சி உருக்கிடுவீர், யந்திரங்கள் வகுத்திடுவீர்” என்று முழங்கினுள் அமரகவி பாரதி. அவன் காட்டிய அற வழியிலேயே நாங்கள் செல்கிறோம். அன்னை பாரதத்தின் புகழ் உலகில் ஒங்கவும், உற்பத்தி பெருகி நாடு செழிக்கவும், பட்டரையில் அலுவல் புரியும் நாங்கள் இதயபூர்வமாக உழைப்போம்.

கவனமிருக்கட்டும்!

மின்சாரத்தை உபயோகிக்கும் விவசாய, வீட்டு கன்ஸ்யூமர்கள் முக்கியமாக கவனிக்கவேண்டியது.

மழைக்காலத்தில் கிணறுகளில் நீர் மட்டம் வெகு விரைவில் ஏறிவிடுமாதலால் கிணறுகளுக்குள் வைக்கப்பட்டிருக்கும் மின்சார மோட்டார் பம்பு செட்டுகள் தண்ணீருக்குள் மூழ்கிக் கெட்டுப்போகாமல் பாதுகாக்க வேண்டியது அவசியம். ஒன்று பம்பு செட்டுகளை கிணறுகளிலிருந்து உடனே எடுத்துவிடுங்கள் அல்லது தண்ணீர், பம்பு செட்டுகளுக்கு எவ்வித அபாயமும் ஏற்படுத்த முடியாத உயரமான மட்டத்திற்கு அவைகளை மாற்றுங்கள். நனைந்த பம்பு செட்டுகளைப் பிறகு வெய்யிலில் காயவைத்துவிட்டால்மட்டும் போதாது அவைகளின் உள் ஈரமும் போக்கப்பட வேண்டும்.

சிப்பந்திகள் தினம் 1954

“திரு வி. சேஷசாயியே இந்த சங்கத்தின் ஆயுள் தலைவராக இருக்கிறார் என்றறிய மிக்க மகிழ்ச்சியடைகிறேன். இதுபோன்ற சங்கம் நிர்வாகத்திற்கும் சிப்பந்திகளுக்கும் இடையே நிலவும் ஒத்துழைப்பு மனப்பான்மையின் சிறந்த அறிகுறியாகும். விளையாட்டுப் போட்டிகளில் சிப்பந்திகளுடன் அவர்களுடைய குழந்தைகளும் பங்குகொள்வது பாராட்டுக்குரியது. குழந்தைகள் எப்போதுமே ஆர்வத்துடன் விளையாட்டுகளில் கலந்து கொள்வார்கள். அவர்களுக்கும் சங்கம் ஒரு சந்தர்ப்பம் அளித்ததற்காக நான் சந்தோஷமெய்துகிறேன்.” இவ்வாறு ஆகஸ்ட் 22-உ அன்று “சிப்பந்திகள் தின” விழாவுக்குத் தலைமை வகித்த சென்னை விவசாய, தொழில் இலாக்கா அமைச்சர் எம். பக்தவத்சலம் அவர்கள் கூறினார்.

இதற்கு முன் சிப்பந்திகள் தென்மதுராஸ் மின்சார கார்ப்பொரேஷன் சங்கத்தின் உபதலைவர் ஆர். பார்த்தசாரதி அமைச்சரை வரவேற்றுப் பேசுகையில் ‘மனிதன் மகிழ்ச்சியுடன் வாழ உணவுடன் உல்லாசக் கேளிக்கைகளும் தேவை’ என்று உரைத்தார்.

பின்பு சங்கத்தின் கௌரவ காரிய தரிசி ஆர். சந்தானம் ஆண்டு அறிக்கையைப் படித்தார்.

தொடர்ந்து ‘வி சி த்திர வேடப் போட்டி’ ஒன்று நடைபெற்றது. அதில் காண்பவர் அனைவரும் திடுக்கிடும் வண்ணம் வி. ராமசாமி (விளம்பர பிரிவு) அசல் எல்லைப்புறப் பட்டாணியனின் வேடத்துடன் தோன்றினார். பி.வி. ரங்க

சாமி வழக்கறிஞராகவும், எஸ். கிருஷ்ண ஸுர்ததி குடுகுடுப்பாண்டியாகவும், கே. ஆர். விஜயன் பிள்ளை காபூல் கன்னியாகவும் பாலசுப்ரமணியம் பைத்தியக்காரனாகவும் மேடையில் தோன்றி யாவரையும் களிக்கச் செய்தனர். வி. ராமசாயியே முதற் பரிசுக்குரியவர் என்று நீதிபதிகள் தீர்ப்பளித்தனர்.

வெற்றி பெற்றவர்களுக்கு அரைச்சர்பரிசுகள் வழங்கினார்.

ஆர். சந்தானம் நன்றிகூற விழா இனிது முடிவுற்றது.

மகுடபதி

இரவு ‘வெள்ளி விழா மன்ற’த்தில் சிப்பந்திகள் ‘மகுடபதி’ நாடகத்தை நடித்தனர்.

அன்னிய ஆட்சி நாம் அன்னை நாட்டை அலங்கோலப்படுத்தியதை சகிக்க முடியாமல் விடுதலை வேட்கைகொண்டு அண்ணல் காந்தியின் தலைமையில் செம்மல்கள் ஆகஸ்ட் அறப்போர் புரிந்த போது ‘கல்கி’ வரைந்து வெளியிட்டார் இக்கதையை.

கார்க்கோடகக் கவுண்டன்; அறத்தின் வைரி, மனித உருவில் உலாவிய அநீதியின் அவதாரம், மதுவரக்கனின் உற்ற நண்பன்.

மகுடபதி; நேர்மையின் சின்னம், அண்ணல் காந்தியின் அறப்பாதையில் சென்ற அகிம்சை வீரன், மதுவிலக்கு இயக்கத்தில் தீவிரப் பங்கு கொண்ட தேசியவாதி. அவன் கார்க்கோடக

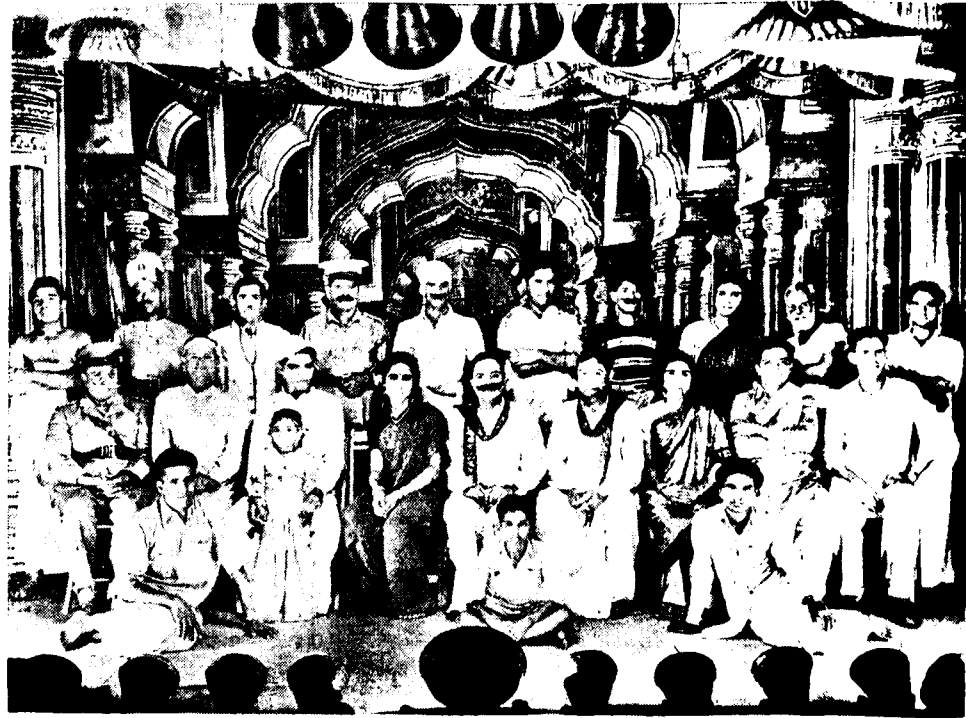
னிடம் கடன்பட்ட தங்காமிக் கவுண்டின் அண்ணன் மகள் செந்திருவைக் காதலிக்கிறான். தங்காமியோ செந்திருவைக் கார்க்கோடகனுக்குத் தாமாக்கத் தீர்மானிக்கிறான்.

அவள் பெரியண்ணன் உதவியுடன் தப்பி தன் காதலன் மகுடபதியை அடைகிறாள். இவ்விபரமறிந்த வஞ்சகமே உருவான கார்க்கோடகன் குழ்ச்சியினால் செந்திருவைத் தன் மாளிகையில் சிறை வைக்கிறான். மகுடபதியும் கார்க்கோடகனுடைய காராக்கிருகத்தில் வாடுகிறான்.

தன் கைத் துப்பாக்கியைக் குறிவைக்கிறான் மகுடபதியின் மீது.

ஆனால் அறம் குறுக்கிட்டு நிறுத்துகிறது நீரச் செயல் புரிவதிலின்று அவனை. உணர்த்துகிறது அவனுக்கு உண்மையை, மகுடபதி அவன் மைந்தனென்று!

முடிவு மங்களகரமானதுதான். மகுடபதி கட்டிய நாங்கல்யம் செந்திருவின் கழுத்தில் மின்ன நாடகம் இனிது முடிவடைந்தது.



மகுடபதி நாடகக் குழுவினர்.

இதற்கிடையே மனம் திருந்திய தங்காமி, பைத்தியம் பிடித்தவள்போல் நடித்த செந்திருவை விடுவிக்கிறான். மகுடபதியும் விடுவிக்கப்படுகிறான்.

மகுடபதி செந்திருவைக் காண வரும் போது கார்க்கோடகன் குறுக்கிட்டுத்

இந்த நாடகத்தின் வசனத்தை திரு. குழலன் நல்ல முறையில் எழுதியிருக்கிறார்.

கார்க்கோடகனாகக் காட்சியளித்த ஆர். வைத்தியநாதனே நாடகத்தை டைரக்ட் செய்திருக்கிறார். அவர் மேடையில்

தோன்றியபோது நான் மெய்ம்மறந்தேன். தன் பாகத்தைப் பாராட்டுக் குரியபடி நடித்தார் வைத்தியநாதன்.

சின் ஸெட்டிங்ஸ், மேக்-அப்-குழை கூறா விதத்து அமைந்திருந்தன.

மகுடபதியாகத்தோன்றிய ஆர். ஜெய ராமனுடைய நடிப்பு பிரமாதம். மற்றும் பி. என். ராமன், ஆர். சந்தானம், வி. ராமசாமி ஆகியோர் சிறப்பாக நடித்தனர்.

இந்த நாடகத்தில் பங்குகொண்ட யாவரும் தத்தம் பாத்திரத்தை உணர்ந்து நன்றாகவே நடித்தனர். அனைவருக்கும் நம் பாராட்டுக்கள்.

மொத்தத்தில் “மகுடபதி” நமது கார்ப்பொரேஷன் சிப்பந்திகளின் நடிப்புத் திறனை மக்கள் அறியச்செய்த சிறந்த நாடகம். அன்று பெய்த பெருமரையையும் பொருட்படுத்தாமல் திரளான மக்கள் நாடக முடிவுவரை இருந்து தங்கள் ஆசியையும் நல்லாதரவையும் நல்கினர் என்பது குறிப்பிடத்தக்கது.

—வே. ரங்கராஜன்.

அமோனியம் சல்பேட் சூப்பர் பாஸ்பேட் கோபுரம் கலவை உரம்

விற்பனையாளர்கள் :

தென் மதராஸ் ஏஜென்ஸீஸ் லிமிடெட்,
பவர் ஹவுஸ் :: தென்னூர், திருச்சி.

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செய்திக் கதிர்

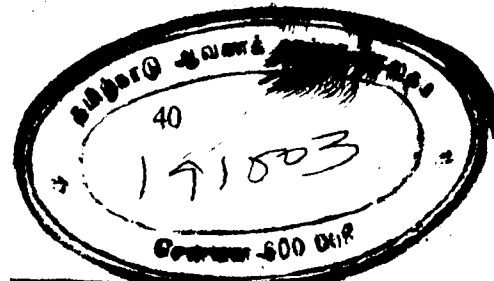
மைசூர் ராஜ்யத்தில் 684 கிராமங்கள்
மின்சார வசதி பெற்றன.

1954ம் ஆண்டு ஜூலை மாதம் மைசூர்
ராஜ்ய சர்க்கார் 105 பாசனக் குழாய்
களுக்கு மின்சார வசதி அளித்துள்
ளனர். இதுவரை 5914 பாசனக்குழாய்
களுக்கு மின்சார வசதி அளிக்கப்பட்டுள்
ளது.

இது தவிர ஜூலை மாதத்தில் ஏழு
கிராமங்களுக்கு மின்சார வசதி செய்யப்
பட்டது. இதுவரை மொத்தம் 684
கிராமங்களுக்கு மைசூர் ராஜ்ய சர்க்கார்
மின்சார வசதியைப் பெருக்கியுள்
ளனர்.

சென்னை சர்க்கார் திட்டங்கள்

ஜூலை 16ம் தேதியன்று ஒரு கூட்டத்
தில் உரை நிகழ்த்திய சென்னை நிதி
அமைச்சர் திரு. சி. சுப்ரமணியம் ராஜ்ய
மின்சார இலாக்காவிற்கு 'தேவைக்கும்
அதிகமாகக் கொடுப்பதற்கு, அரசாங்கத்
திட்டம் பணம் இருப்பதாகத் தெரி
வித்தார். இந்தத்தொகை முழுவதும்
அபிவிருத்தித் திட்டங்களை நிறைவேற்
றப் பயன்படுத்தப்படும் என்று தாம்
நம்புவதாக அமைச்சர் கூறினார்.



மின்சார அபிவிருத்தித் திட்டங்களை
நிறைவேற்ற 1954-55ம் ஆண்டு மத்திய
சர்க்காரிடமிருந்து ரூ. 5.88 கோடி
சென்னை அரசாங்கம் கடன் கோரி
யிருப்பதாகவும் சுப்ரமணியம் குறிப்
பிட்டார்.

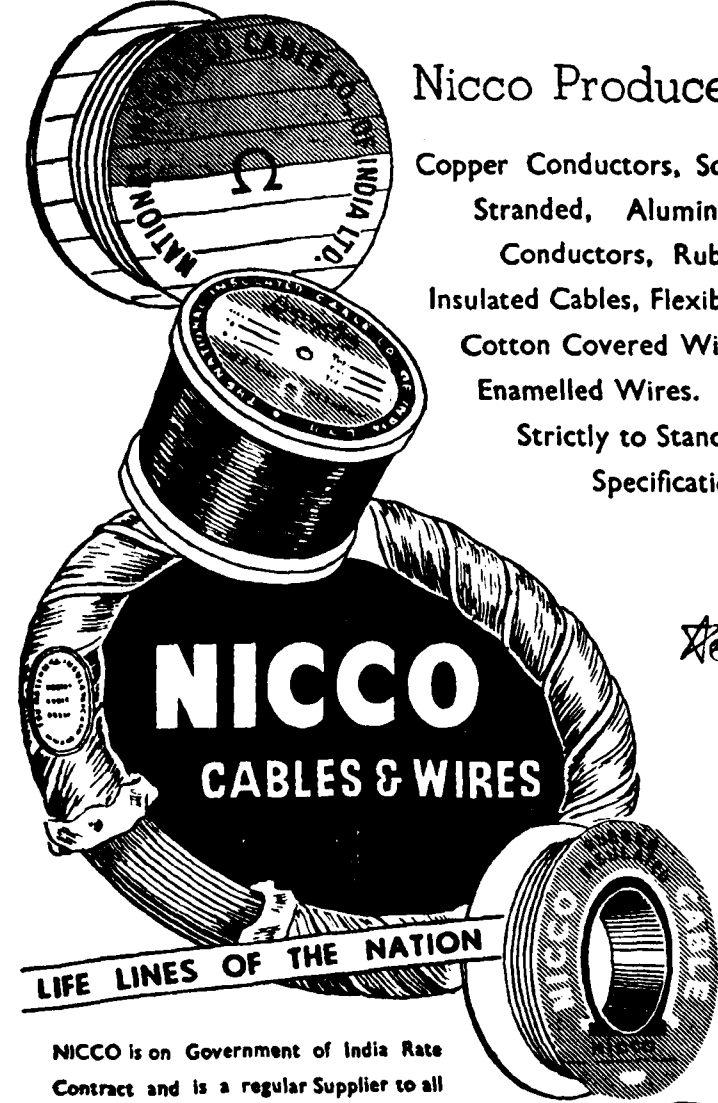
பல திட்டங்களை ராஜ்ய அரசாங்கம்
வகுத்திருப்பதாகவும், அவை நிறை
வேறியவுடன் பல கிராமங்கள் மின்சார
வசதிபெறும் என்றும் நிதி அமைச்சர்
கூறினார். "கிராமங்களுக்கு மின்சார
வசதி அளிப்பதில் சென்னை மாகாணமே
தலைசிறந்திருக்கிறது" என்று அவர்
கூறினார். மேலும் அவர் சொன்ன
தாவது: "இதுவரை சுமார் இரண்டா
யிரத்திற்கும் அதிகமான கிராமங்
களுக்கு மின்சார வசதி அளிக்கப்
பட்டிருக்கிறது. இரண்டாவது ஐந்
தாண்டுத் திட்டம் நிறைவேறுமுன் நம்
ராஜ்யத்தில் பல கிராமங்களுக்கு மின்
சார வசதி அளிக்கப்படும்."

அணு குண்டும் அசைக்க முடியாத
மின்சார நிலையம்!

பிரிட்டிஷ் கொலம்பியாவில் கெமாநோ
மலைச்சிகரத்தைக் குடைந்து மின்சார
உற்பத்தி நிலையமொன்றை மின்சார
நிபுணர்கள் நிறுவியுள்ளனர். கானடா
அலுமினியம் கம்பெனி இந்த நிலையத்
தைக் கட்டி முடித்துள்ளது.

ஜல வாயு குண்டுகூட இந்த நிலையத்
திற்கு எவ்வித ஆபத்தும் விளைவிக்க
இயலாது என்று கூறப்படுகிறது. மின்
சார உற்பத்தி இயந்திரங்கள் (Power
generators) 500 கெஜுதாரப் பாதை
களுக்கும் கீழ் அமைக்கப்பெற்றுள்ளன.
இந்த மின்சார நிலையம் 4,50,000
குதிரை ஓட்ட மின்சார சக்தியை உற்
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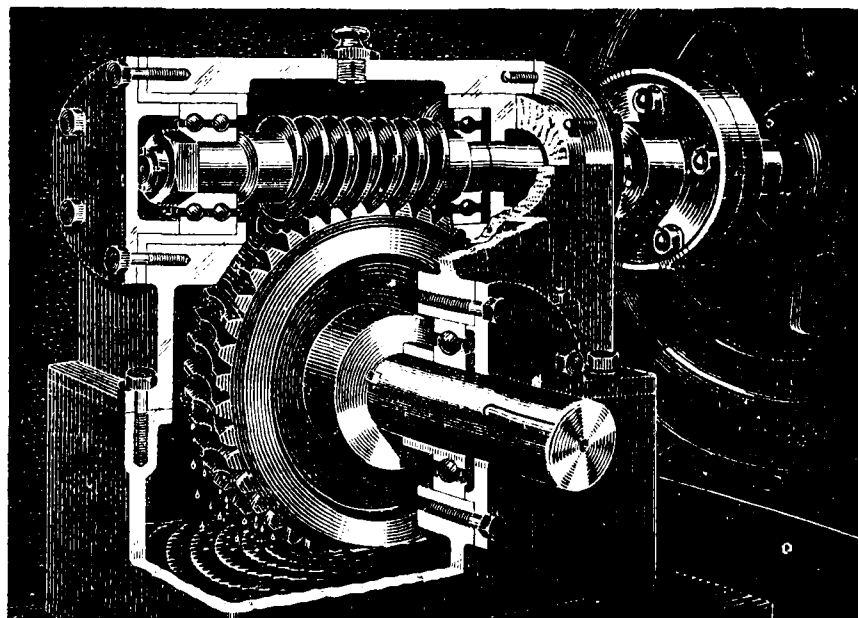
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Three main ingredients go into making these oils. The first: careful selection of crude oils with high natural affinity for metal. The second: scientific incorporation of additives which increase this affinity, and give great 'anti-weld' properties.

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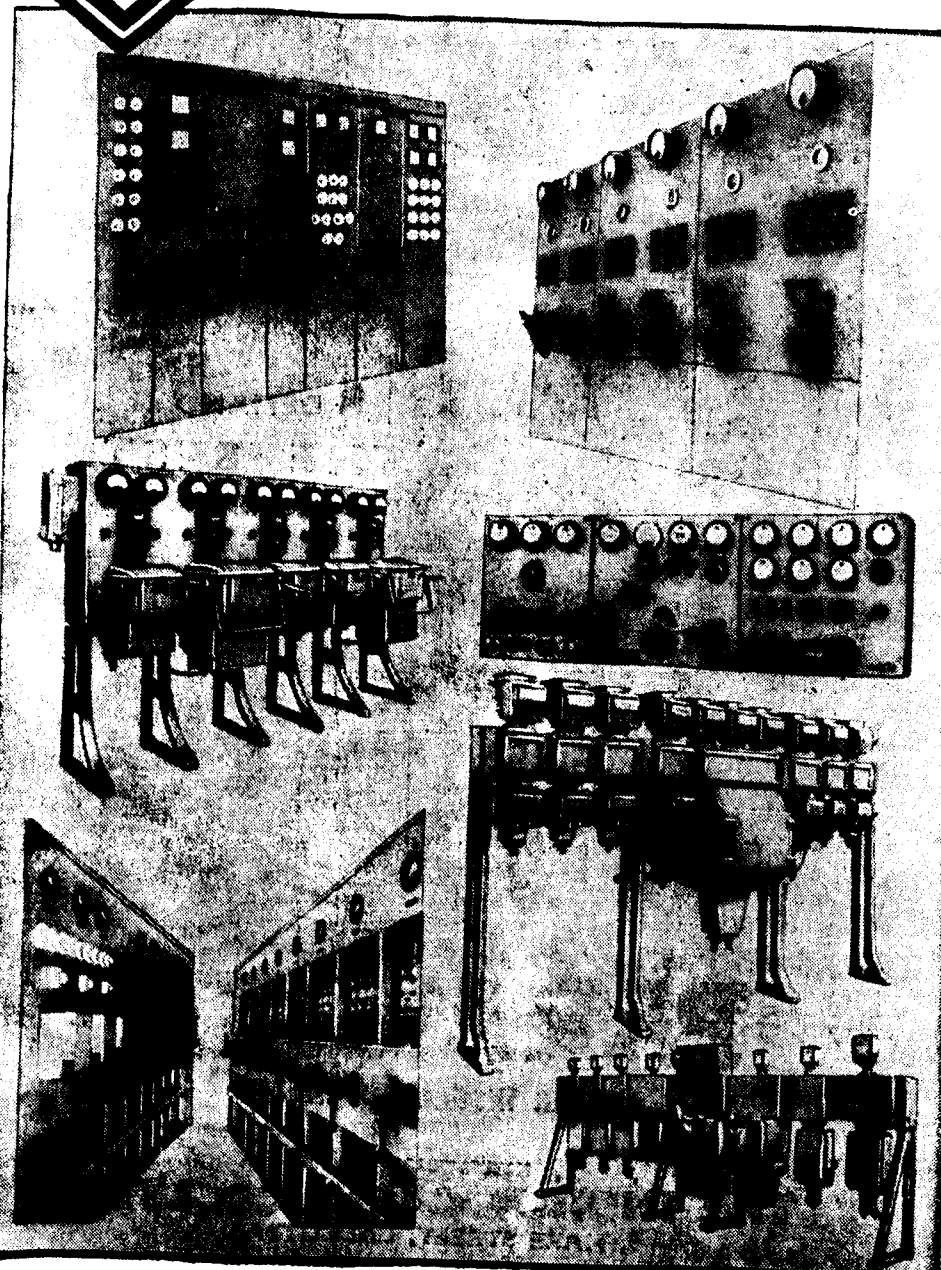
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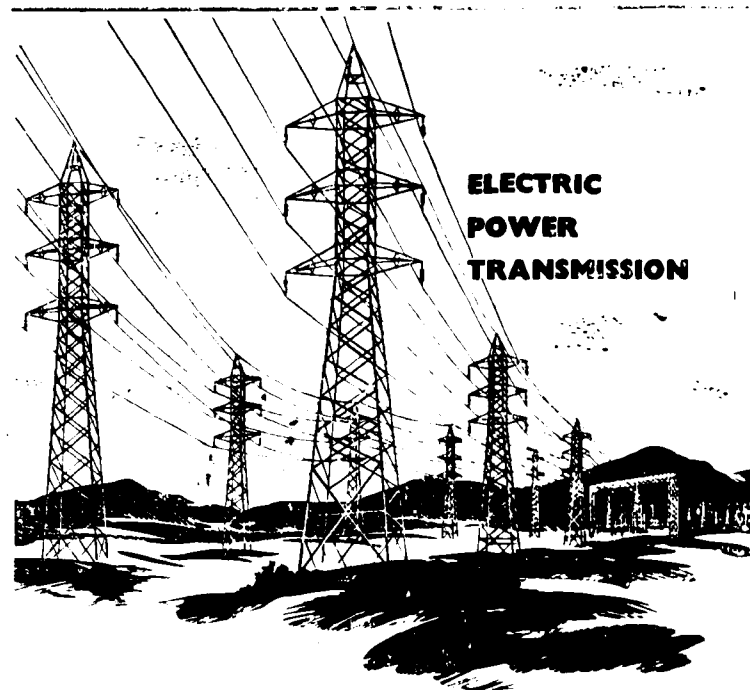


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