

761

The POWER

A MONTHLY JOURNAL

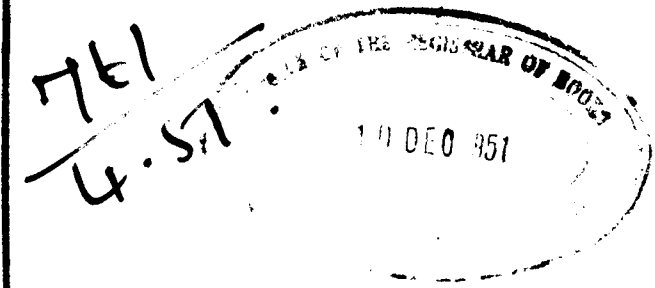
EDITOR:- P.S.PILLAI, M.A.

Vol. II
No. 3

DECEMBER 1951.

Single Copy As. 8.
Annual Subs. Rs. 5.

761
4.57

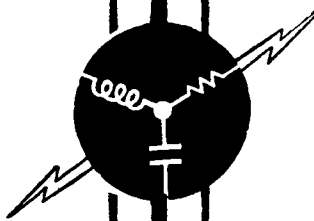


380

CONTENTS.

Madras Markets
Where to Buy?

1. Editorial
2. Special Articles
3. Consumer's Companion
4. Trends of Trade
5. Books and Brochures
6. News & Notes
7. Here & There
8. Madras Markets



RESERVED

Performance of "Power"

- * Regular every month.
It contains up-to-date information of technical and general interest.
- * Overseas Representation.
A direct link between your firm and the overseas organisation is assured.
- * Contacts suppliers and buyers.
It helps you to sell or buy the goods by contacting concerned manufactures, or firms or parties.
- * Free service to Regular Subscribers.
It provides all possible assistance in your business careers or trips.

ASK THE



ABOUT IT

In this issue :—
Dome of Discovery
The Pilot Project
The Man of the Hour

For Your Pleasure & Profit— REPUBLIC DAY NUMBER

OF "THE POWER"

(JAN., 1952 ISSUE)

Will Contain

- ★ A Prayer & A Pledge—
Pictorial Representation.
- ★ Messages from Prominent Persons.
- ★ Contributions from Eminent Engineers.
- ★ Tit-Bits on Children's Corner, Female Forum Etc.
- ★ Wide & Varied Advt's.,
- ★ An Excellent get-up on Art paper.
- ★ Coloured picture studies of Science serves man-kind, Romance of Electricity, The City from where the "Power" Starts, Rivers in the service of Mankind, Hydro-Electric Power in India and its projects, Plough for Plenty, The world in progress, ETC.,

Price : Rs. 1—8—0
(Payable strictly in advance within 15th December.)

BOOK YOUR COPY FROM
Circulation Manager.

IT PAYS TO ADVERTISE—
FOR RATES AND PARTICULARS

APPLY TO

Advertisement Manager.

The Power like Time does not stop.
It progresses in Circulation all over the World—

The Power's Pick.

Over 500,000 read
"Power" every month.

1. DECEMBER 1951.

S.	30	2	9	16	23
M.	31	3	10	17	24
T.	...	4	11	18	25
W.	...	5	12	19	26
T.	...	6	13	20	27
F.	...	7	14	21	28
S.	1	8	15	22	

2. QUIZ.

Blow it out!
Suck it out!!
—Which will do it!

Which is the famous birth place of
Britain's best domestic appliances?

What is a Nomogram?

Answer — November Quiz.

They are Nash Cars Air Flyte-1951.—
Creda Cornet Electric Cooker is introduced by
The Simplex Electric Limited, Birmingham.

The 6 factors for Light Loss are

1. Lamp ageing,
2. Incorrect voltage,
3. Inefficient luminaries,
4. Room Surfaces,
5. Dirt and Dust and
6. Lamp outages.—



3. HERE'S HOW.....

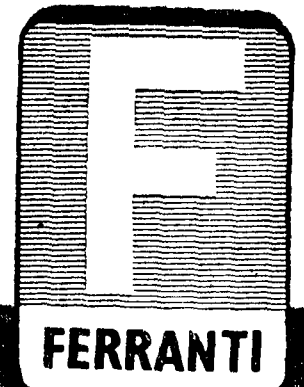
The most important function of paper is
as an ambassador to trade. It is paper
that clothes and carries the message of
manufactured products to the markets
of the world.

200,000,000 passengers per year travel in
the London transport.

Economic in cost, Lightweight, easy to
handle, mechanically strong is B. I
Callender's Aluminium sheathed cable.

POWER IS PROGRESS.

Ferranti



*maximum
demand
meters
and
alarm
relays*



SOLE AGENTS IN INDIA

BRITISH INSULATED CALLENDER'S CABLES LIMITED.

Head Office:—Esplanade House,
Waudby Road, Fort, BOMBAY, I. P. O. Box No. 111
MADRAS OFFICE: 37, Second Line Beach, P. O. Box No. 33

BRANCHES ALSO AT:—

AHMEDABAD AMBALA BANGALORE CALCUTTA COIMBATORE ERNAKULAM
KANPUR NAGPUR NEW DELHI SECUNDERABAD (DN.)

RALLIS INDIA LIMITED

P. B. No. 153

MADRAS

Tel: {3981
2673

SOLE DISTRIBUTORS FOR
MASSEY—HARRIS

TRACTORS

and

THE WORLD'S FINEST FARM AND AGRICULTURAL IMPLEMENTS.

ROCKWELD LTD., ENGLAND

SUPERIOR ARC WELDING ELECTRODES

Fully approved by M. O. S. (C.I.E.M.E.) and
Admiralty suitable for use either A.C. or D.C.
Mild Steel Cast Iron, Hard Surfacing,
Stainless Steel and

ALSO

ROCKWELD MOTOR DRIVEN WELDING GENERATORS

FAMOUS FOR

- * Smooth Stable Arc
- * Infinitely variable Current Control
- * Negligible Maintenance
- * Low Energy Consumption

ALSO

Welding Transformers and Bare Shaft Generators
**ELECTRIC CONSTRUCTION & EQUIPMENT CO.,
LTD., CALCUTTA**

Electric Motors Upto 10 H.P. Transformers,
Control Gear etc.

WOLF ELECTRIC TOOLS LTD., LONDON

The world famous 'Wolf' range of Electric
Drills, Grinders, Sanders, Polishers, Screw
Drivers, Nut setters, Chisel Mortisers, Blowers,
Hammers, Valve Grinders, etc.

B. ELLIOTT & CO., LTD., LONDON

Milling Machines— 14" Band Sawing Machines—
Drilling Machines— Grinding Machines—

ALSO

"SAMSON" Hand Lever Operated Pipe and
Tube Bending, Angle Bending, Shearing
Rod Cutting and Punching Machines,

M. W. M. Benz DIESEL ENGINES

(German Make)

5/6 H. P. and 10 H. P.

SKODA WORKS LTD., CZECHOSLOVAKIA

DIESEL ENGINES 7 to 180 H.P.

DIESEL GENERATING SETS

DIESEL PUMPS

YANMAR ENGINES

(Japanese Make)

4, 6, 8 and 10 H. P.

Phone: 3096.

P. O. Box 293.

Grams: "HIGHSPEED

MODI and MODI

11, LINGHI CHETTY STREET,
MADRAS-1.

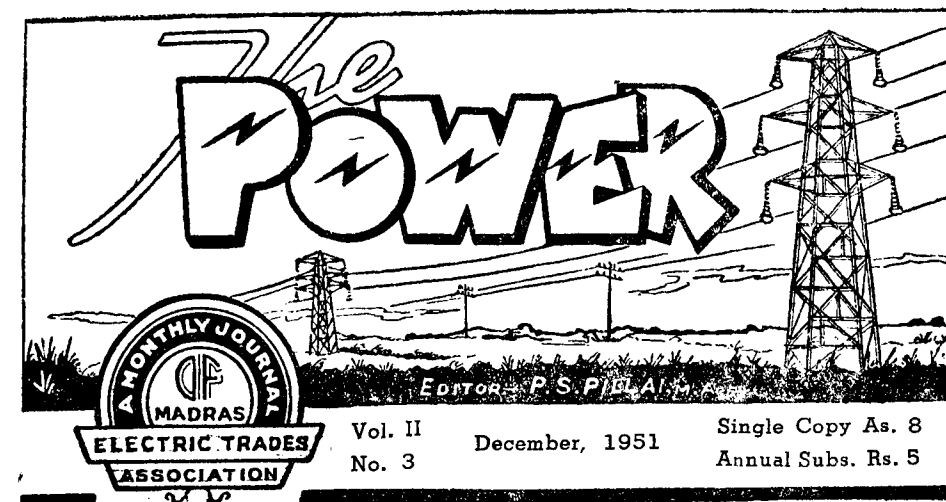
BRANCHES:
COIMBATORE—MADURA—VIJAYAWADA—MADRAS. P. T.,

IMPORTERS & AGENTS

Electrical Accessories, Motors, Generators, Switch Boards,
H. T. Insulators, Wires, Cables, Meters, Measuring Instruments Etc.,

CAN QUOTE FOR

Anything in Electrical or Mechanical Engineering Lines.



Published Monthly.

EDITORIAL BOARD

T. R. R. Swami, N. S. Sethuraman, B.A.,
C.L. Modi, B.A., I. S. Rao, B.Sc. (Eng). A.M.I.E.,
P. S. Pillai, M.A.,

All correspondence etc., should be
addressed to the Publisher
296, Linghi Chetty Street,
G. T., MADRAS-1.

TIT-BITS

Focus on Females, | Business Bunch
Children's Corner, | Power's Puzzle

CONTENTS.

1. Editorial	...	...
2. Special Articles	...	...
3. Consumer's Companion	...	...
4. Trends of Trade	...	...
5. Books and Brochures	...	...
6. News and Notes	...	...
7. Here and There	...	...
8. Madras Markets	...	...



THE HANDS THAT HOLD THE "POWER" RULE THE WORLD!

Ours is the first and foremost of its kind in India and has wide circulation among traders and consumers of power from home across the world covering villages and towns. Advertisement in the "Power" means

Attracting attention & arousing interest,
Inspiring confidence in you & your claims,
Studying prospective buyers & finding selling points,
And wide publicity & increased business—

Glad to hear from you about your required space.

ANNOUNCEMENT

To our esteemed and regular readers and subscribers, the REPUBLIC NUMBER issue of the "The Power" (January, 1952) will be sent by V.P.P. in case of non-receipt of their money in advance. They are requested to honour the same, as money actually spent is money really earned out of the fund of knowledge, art coloured picture studies etc., of the uses and advantages derived from Electrical Power.

Circulation Manager
"THE POWER"

Advertisement Tariff.

RATES PER INSERTION.

Full Page Inner	...	Rs. 75	0	0
Half Page Inner	...	Rs. 40	0	0
Quarter Page Inner	...	Rs. 25	0	0

COVER PAGES.

Second and Third	...	Rs. 85	0	0
Fourth	...	Rs. 100	0	0

(Payable with the order)

For contract of one year and above a rebate is allowed. Colour advertisements and Prominent Page-Special rates. For details apply to Advertisement Manager.

Subscription Rates.

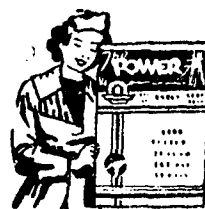
Single Copy	As. 8/-
Annual Subscription	Rs. 5/- (Inland)
"	\$ 14/- (Foreign)

Payable in advance :
Available at Messrs. Higginbothams,
Swadesamitran, other Book-Stalls and
News Agents at all places.

POWER'S PRIZES

FOR
CHILDREN, TECHNICIANS & FEMALES.

Apply for particulars to Competition Manager



380

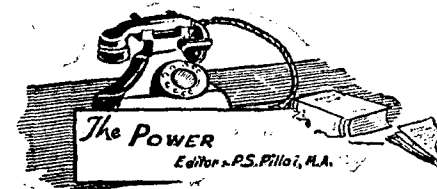
Vol. II

December, 1951

No. 3

Change is the rhythm that draws the world along...

— Alfred Noyes.



THE BUSINESS CYCLE

The term business cycle is used to describe the series of changes in business conditions which are characterised by an upward movement towards a boom, followed by a downward movement into a depression. It should not be confounded with seasonal fluctuations which affect practically every business. Business cycles have run their course fourteen or fifteen times in the world during the past century. The havoc they have wrought upon thousands of businesses and upon millions of investors is incalculable. Conversely, the opportunities for profit have been enormous, though they have seldom been properly availed of. This is largely because business cycles are not fully understood, no forecast of the time of recurrence can be told, few guard against

the dangers and few know how to avail themselves of the profits.

Jevons, an English economist, attempted to show that the cyclical movement had its origin in the sun spots, assuming that these had an effect upon crops, and that the crops in turn were the direct cause of the ups-and-downs of industry. After him many dogmas and doctrines have been told which do not meet the approval of majority.

We shall now examine the phases of the business cycle. It has five well-defined phases—depression, recovery, prosperity, financial strain, crisis.



Depression is marked by low prices of securities, small volume of speculation, depression of commodity prices, declining rates on commercial paper, increasing bank reserves and, in general, sluggish business activity. Labour becomes more productive in the face of unemployment. The demand for credit is reduced to a point which brings about the accumulation of large amount of money in the

banks. These funds are utilised for the purchase of securities, since these are now to be had at minimum prices. The purchase of such securities tends slowly to stimulate business activity. The prices of securities begin to rise so also do commodity prices. The situation brings speculation, with its bullish stock market, increasing demand for funds to business enterprise, to build factories and to promotion of various other expensive movements. Now comes prosperity. The demand on the banks by business men now obtains precedence over that by speculators. Commodity prices continue to rise. The continuance of this situation leads logically to the next phase, viz. financial strain. The earmarks of this phase are high credit tension and liquidation of securities. Business activity and the prices of commodities are now at their highest levels. Inflation is rampant. Unsound ventures threaten to fail. The weaker concerns are thrown into disorder. The last phase crisis, is characterised by severe liquidation of commodity and security markets. A number of failures is caused during this period, even though the crisis is not sudden or severe. The culmination of this phase brings unemployment, the closing of factories and general curtailment of business and industrial activity. Low interest rates, good opportunities for investment, and low commodity prices bring us back again to the starting point.

There are some obvious policies which will reduce the severity of business oscillations. In selling, it is logical to put in additional effort when business is hard to obtain. Advertisement should be done in proportion to the need of sales and not to the actual sales. In financial activities, it is best to build up reserves during prosperous times, instead of devoting surplus funds to projects of expansion. Thus a definite policy should be drawn up and put into effect.

The business cycle is a phenomenon which no business man can afford to neglect. Although

its causes are far from being clear, its effects are obvious. Numerous suggestions have been made towards the control or alleviation of the ill effects of violent fluctuations by collective or governmental control. None of these remedies would entirely overcome the indulgence of business activity; yet the focussing of public attention on the subject will tend to mitigate the severity of hard times.

Every business may be regarded as having a business cycle of its own, and if the laws which control the actions and reactions of its movements can be formulated, a great advance will have been made.

COMPENDIUM ON COMPANIES:

The E. E. C. (The English Electric Coy., Ltd.) Queens House, Kingsway, London W.C.2 with its branches, agents and associates throughout the world, was formed in 1918 to consolidate under one management a number of old established firms whose activities dated back to the earliest days of electrical engineering and who were pioneers in their respective branches of the industry. These include Siemens Brothers Dynamo Works, Stafford, Dick, Kerr and Coy Preston, Williams and Robinson, Rugby and Phoenix Dynamo Manufacturing Coy., Bradford.

In 1943, the Company acquired the famous and old established firm of aeronautical and automobile engineers, D. Napier and Son Ltd, and in 1946 it purchased Marconi Wireless Telegraph Company Ltd., the world's greatest name in wireless.

The activities of the original concerns were gradually extended to cover a wide field of engineering interests and some of its products vary from prime movers, generators, transmission and distribution equipment for

electricity supply systems, to the many and varied products available for all industries.

The Nelson Research Laboratories at Stafford have highly qualified staffs in fully-equipped laboratories, engaged on the analysis of physical, electrical, chemical, metallurgical and engineering problems.

English Electric Steam Turbines, and Generators, Diesel Oil Engines, outdoor and

indoor switchgear and transformers for all voltages, electric vehicle for rail and road transport, motors, heavy duty cooking equipment (for example the well-known Ritemp' Cookes) are some of its manufactures well-known throughout the world.

For full particulars ask Messrs. Binny & Company (Madras) Ltd., 7, Armenian Street, Madras-1.



FROM BUSINESS BUNCH

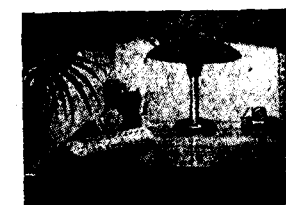
The "day-sheet"

The day-sheet in a big contract especially in electrical ones is a very important factor. It may take various forms—in a printed duplicate book or on suitable loose sheets numbered with an abbreviated copy in a daysheet book or typed loose sheets with carbon copy. In practice the last is the best system because it is neater and more exact labour saving and yet providing easily for possible extra copies. The office duplicates should be filed in numerical order with an index to the contract to which they relate. The day-sheet of convenient quarto form, will be printed on both sides. The front will bear the firm's usual heading, and spaces for the serial number date of issue,

name and address of the customer and the foreman's name. The rest is left blank for a description of the work covered. At the foot a provision is made for any variation. The sheet should be returned to the office as soon as the work it covers is completed.

The prompt return of the day-sheets is important. It avoids completion from memory or guess work, assists the engineer to go ahead of the task on hand, helps the accountant to price up those completed for final account. The back, faint ruled for convenience, will repeat the serial number, and should be headed by the date of commencement of the work. Columns for date, workman's name, hours booked, material and cash columns for cost are to be found and filled in respectively. The date of completion and the foreman's signature are to be found.

(to be continued)





SOLE AGENTS FOR SOUTH MADRAS STATE:

RM. S. & CO., LTD.,

16, Broadway, MADRAS-1.

Distributors for ANDHRA DISTRICTS (except CHITTOOR Dist.)

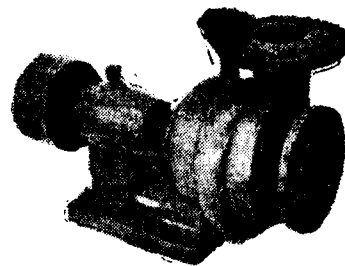
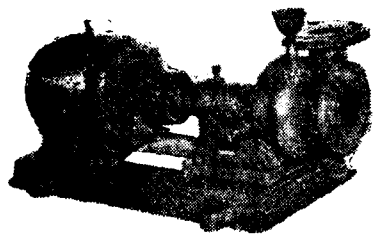
Mc DOWELL & CO., LTD.,
Post Box No. 36, MADRAS-1.

CHANDRA

Phone : 2079

CENTRIFUGAL PUMPS

FOR AGRICULTURE, CIVIL SUPPLY,
MINING, PAPER & SUPPLY MILLS,
DRAINAGE ETC.



SUCTION LIFT MAXIMUM 30 FEET
TOTAL MONOMETRIC HEAD 80 FEET
21100 G. P. H. AT 60 FT., WITH 6 H. P. MOTOR.

For Further Particulars Contact :

THE CHANDRA FOUNDRIES LIMITED,
55, BASIN BRIDGE ROAD, WASHHERMANPET,
MADRAS-21.

Special Articles

(By Miss K. Saraswathi, B.Sc.,)

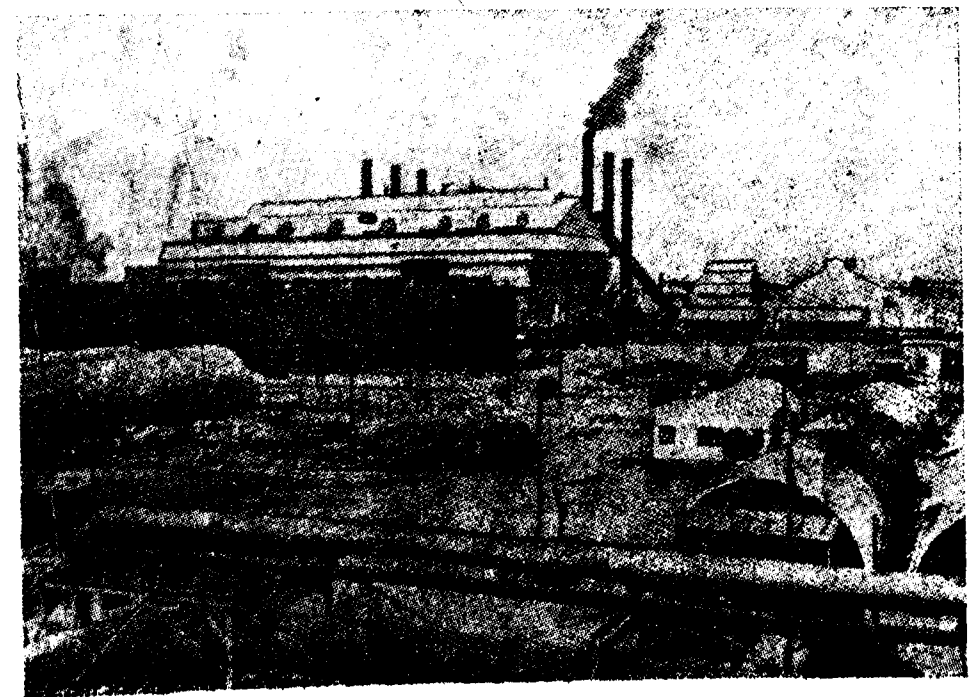
The Sindri Fertilizer Factory

India is indeed proud of the first big State-owned enterprise since Independence and Asia's largest—the Fertiliser Factory at Sindri in Bihar which has gone in production recently. The factory costs 23 crores of rupees and has been planned by providing ample scope for further installation and for producing different types of products such as nitric acid, ammonium nitrate or nitro-chalk as fertilizer etc. The four main engineering sections in the factory are the Power, the Gas, the Ammonium Synthesis, and the Sulphate sections. It has a production target of 1000 tons of ammonium sulphate daily to meet the demand of the

Indian farmer in order to raise bigger and better crops. Also this will help the Country's economy to save nearly 9 crores of rupees spent on imported fertilisers.

The factory has been named after a village of the same name, on the banks of the river Damodar, 14 miles downstream from Dhanbad in Bihar State. The factory with its township covers an area of 5000 acres. Here stands now a modern town, throbbing with the life of a new industrial centre, with all reasonable amenities of civilization—markets, hospitals, schools, clubs, welfare centres and decent homes. When cheap electric power becomes available from the near-by multi-purpose Damodar River Valley Project, further expansion will be made.

Water supply has been a major problem. Adequate supplies are now made for the needs of the first two or three years. By 1954 the completion of the Tilaiya Dam under the Damodar Valley Project would help Sindri to



achieve the target of 12 million gallons of water daily to satisfy its entire requirement. A novel and successful experiment has been carried out by way of an infiltration gallery to extract sub-surface water running below the sands in the bed of the Damodar river during the hot season. The infiltration gallery is expected to yield 5 to 6 million gallons of water a day.

The Sindri factory has utilised in its structure 91000 cubic yards of reinforced concrete, 11000 tons of structural steel, 45,000 tons of plant, 80 miles of pipe line, 12 miles of railway track and 170 miles of electric power cables. For its working, it requires every day 12 million gallons of water, 600 tons of coke, and 600 tons of coal. The daily consumption of gypsum (the main raw material) would be about 1800 tons—besides 400 tons of other raw materials. The power plant has an installed capacity of 80,000 KWs. The silo constructed for the storage of the finished product is one of the

longest monolithic reinforced concrete buildings in the world—all air-conditioned and with an overhead conveyer to stock the product without manual labour. In the process of manufacture of 1000 tons of ammonium sulphate per day, about 900 tons of Calcium Carbonate sludge will be thrown up as a by-product. This by-product is proposed to be utilised as a raw material for a cement factory with an installed capacity of 300 tons per day of first rate Portland Cement.

The construction of Sindri, in short, is an outstanding example of international co-operation for the establishment of a vast industrial undertaking for the good of the common man. The American, English, German firms and engineers have given their assistance and co-operation in this upheaval task. Thus the foundation of a national chemical engineering industry have been well-laid in our Free India. This will lead to further industrialisation and nationalisation in the Country.

FOCUS ON FEMALES



The poets of all the ages have rhymed so beautifully about *maternity* and the singers from time immemorial have sung so sweetly about it that we cannot give up the thought that the Great Divinity which fashioned all good things in the universe must have invested this instinct of motherhood with a peculiar essence of sacredness. It is a delightful thing to witness, that of a 5 year old girl cooing and singing over the crib of her little pink-ribboned doll. Where does the actual story begin? It begins when the daughter develops into a well-round-

ed woman and is given every possible advantage for securing life-companion. She then has the crowning ambition and joy of all human existence; namely to bring good children into the world; feel the touch of baby hands and of the delicate cheek against the breast; to enjoy the noisy play and prattle; to care for the little ones in their childhood ailments and misfortunes; to watch them over while they eat and sleep and grow; to see them develop into mature men and women; and finally to advise and counsel with them as they eagerly seek out a place of their own in the world.

"The pipe is sweet, the lute is sweet"

say those who have not heard the prattle of their own children.

— St. Valluvar.

Phone: 2715.

Grams: "RAJENCO"

M. T. RAJEN & CO.,

(ESTD. 1914.)

195, Nethaji Subhas Chandra Bose Road,
G. T. MADRAS 1.

Branches at

62, Manjanakara Street,
MADURA.

4/357, Avanashi Road,
COIMBATORE.

IMPORTERS & DEALERS

OF
ALL ELECTRICAL ACCESSORIES, SWITCH & MOTOR CONTROL
GEARS, WIRES, CABLES, METERS, FANS ETC.

"REMCO"

Plastic Wires for use in Textile Mills, House wiring and other industries approved by

THE INSURANCE ASSOCIATION OF INDIA,

BOMBAY REGIONAL COUNCIL
(Fire Sectional Committee)

Telegrams:

'UNDERWRITE' BOMBAY

Tele. No. 30081-2 Lines

Ref. No. 5603/12

JACOB SASSOON BUILDING
6, RAMPART ROW, FORT.

Bombay, 15th Sept., 1951.

Messrs. INDUSTRIAL & AGRICULTURAL ENGINEERING CO., (Bombay) LTD.,
43, Forbes Street, Fort, Bombay-1.

Dear Sirs,

"REMCO" PLASTIC WIRES.

I acknowledge receipt of your letter No. BPD: RR dated 11th instant and confirm that there will be no objection to the use of Plastic cables you mention in textile and other industrial risks.

Yours faithfully,

Sd. VAMAN H. THAKOR.
Secretary.

'Grams: FUELPUMP.

DEALERS—

It will pay you to recommend a
BOSCH

NOZZLE
FUEL PUMP OR
NOZZLE HOLDER

The next time your Petter AVI, II (Series I) client calls on you for a replacement,

Write in for Special Terms to:—

THE FUEL INJECTION SPECIALISTS'—

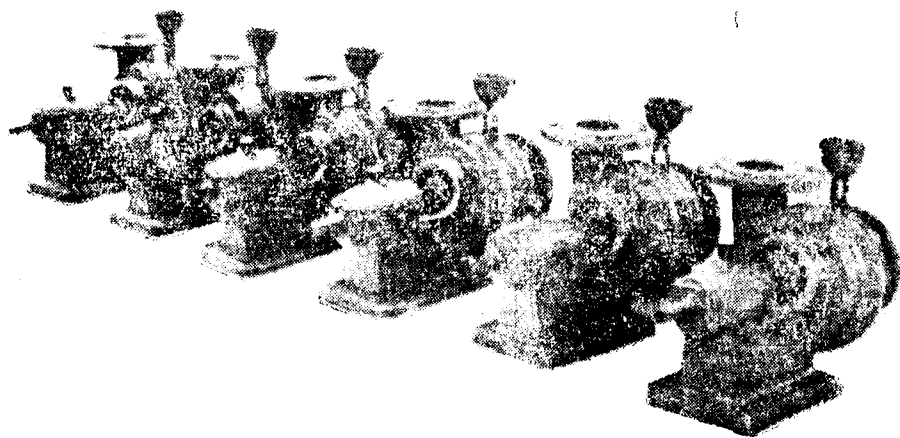
THE INDIAN ENGINEERING & TRADING COMPANY,
"Boag Buildings," 31, Wallers Road, MADRAS-2.

CONSUMER'S COMPANION

(The Consumer of Power-Electrical and Mechanical — has every reason to keep closely in step with the fundamentals of this power and widespread modern applications. All calculations and complicated formulae have been scrupulously avoided but practical hints and notes in the form of elementary treatise are given in the POWER to be of help to the common Consumer).

FOR FARM & INDUSTRY

Power Pumps (Series-5)



The early history of pumping problem is interesting. From the time of Hero the Elder a philosopher of Alexandria in the reign of Ptolemy Philadelphus, living 130 years before the Christian Era up to the time of Sims in the 19th century A. D. many eminent scientists like Watt, Wolf have made history in the invention and introduction of mechanical contrivance to raise water for palaces, gentleman's seats, draining fens, houses etc.

Later, various types of pumps like Bucket pump, Plunger pump came into existence. The Steam Engine played an important part in pumping machinery with its limitations in application. Next, the transmission of electric

(or mechanical) power was made use of for the working the centrifugal pumps of modern construction which vary according to the manufactures. But the efficiency of the pump is the important factor.

One of the efficient centrifugal pumps that are in the Indian field to-day is **CANDRA PUMPS** manufactured by Messrs. **The Chandra Foundries Limited, Washermanpet, Madras 21**. The Pioneers like Kirlosker and P.S.G. have already wiped out the false impression of the Indian farmer that foreign pumps alone are of better performance. Chandra foundries who always care more for their reputation than for quick money have a decade of experience in the

field and they have now brought into the market a new type of pump similar to Sigma, Sulzer under the personal guidance and supervision of their European Engineer. Their pumps are very robust and compact in construction and leave the factory only after test.

They are now concentrating on the production of 3" agricultural pumps to help the farmers. The output is 12000 GPH. at 53 feet monometric head at 2880 rpm. with 5 HP. Motor or oil engine. The pump is so designed that it can be either directly coupled or arranged for belt drive. The pump shaft runs on two ball bearings and two metal bearings which avoids pull in single direction. There is

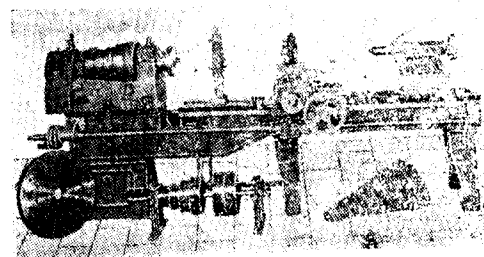
ample space for lubricating the bearings. The metal bearings which come on either side of the impeller are layered with white metal and are water lubricated. The suction side is sealed with a rotary rubber ring which ensures perfection in suction, avoids airlock. A tiny hole from the body of the pump to the stuffing box enables water to get into the other side and seal off the body from outer atmosphere. The pumps are sold with a guarantee of one year and is indeed worth a trial. Chandras concentrate on the manufacture of 1" Domestic pump to meet the growing need of the township. It is capable of an output of 1200 GPH. at 60 feet monometric head when coupled to a ½ HP. Motor at 2880 rpm. which is fairly a good record for its class.

If you visit Chandras, the manager greets you with smile and never leaves you without seeing the demonstration and performance of their pumps. You are posted with all facts and figures, you are given all possible guidance and you cannot afford to lose their valuable service. Contact Messrs. **THE CHANDRA FOUNDRIES LIMITED**, for your benefit and advantage.

FOR FACTORY & WORKSHOP

(Tools—Series-3)

If the world required 5,000,000 wooden or metal busts say, of Mr. Winston Churchill with his pipe, exactly alike, there would be no mechanical difficulty in producing a machine



which would turn them out practically finished for a cost of labour of only a few annas, instead of many rupees. The *lathe* is by far the most

ancient of such machines. In its treadle form it is probably as old as the potter's wheel which takes it back to long before the Christian era. In principle it remains the same today as it was then, but innumerable improvements have been imported into its design and constructions which have immensely widened its field of activity. The power-lathe is of later manufacture and enables to deal with every sort of intricate turning, oval, tapering spiral, curved, fluted and irregular designs. Apart from turning work, the lathe is in itself the parent of the boring machine and in many of its adaptations is used as such.

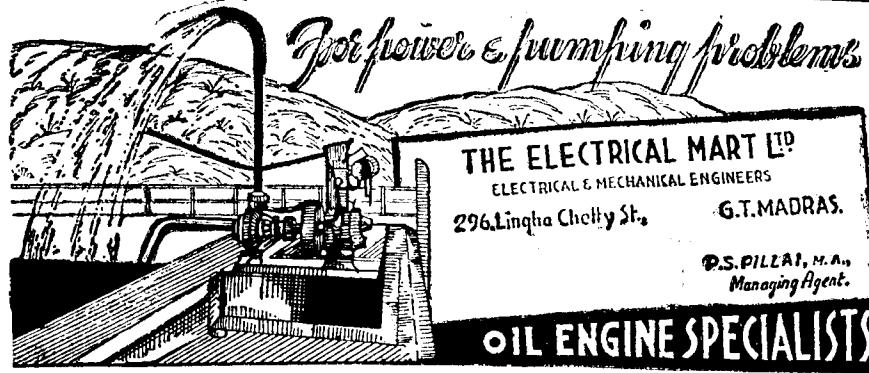
Lathes are divided with respect of the mode of setting them in motion, into pole-lathes, foot-lathes, handwheel lathes and power-lathes, with respect to the species of work they have to perform into centre lathes, and spindles, mandrel or chuck lathes.

Our Free India is proud of its manufacture of *Enterprise Lathes* by Messrs. **JAYEMS ENGINEERING COMPANY**. (H.O. at Bombay) whose Madras Office is at 41, Lingha Chetty Street, Madras-1. These lathes are self-acting, sliding, surfacing and screw cutting. They are of 8, 10 and 12 feet heavy duty 11" and 13" centre, with powerful gap-bed, sliding, surfacing. They are very accurate and robust in construction specially recommended to meet the requirements.

Enterprise	5 feet	Rs. 2800/-
"	6 "	Rs. 3500/-
"	8 "	Rs. 4000/-
"	10 "	Rs. 4500/-
"	12 "	Rs. 5000/-

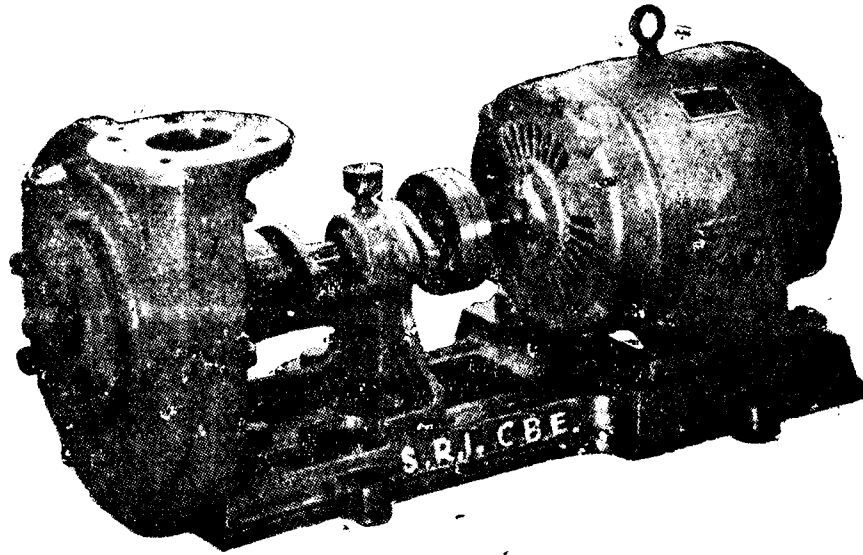
with standard accessories supplied at extra cost.

Besides **JAYEMS** are the sole agents in India for **CAPSTAN LATHES** (Swedish) which are constructed of the best materials and which possess all the most recent improvements. Ask **JAYEMS** about it. They will gladly assist you to equip your factory and workshop with the latest of machine and machine tools to your need and satisfaction.



ஸ்ரீ பம்புகள்

நீடித்த
உழைப்பு
குறைந்த
செலவு
நிறைய
விளைச்சல்



STOCKISTS IN MADRAS
G. JANSI & CO., ELECTRICAL MART LTD.,
TEE YEN BEE MILL STORES, Madras - Hyderabad - Dn.
Distributors:—NELLIKUPPAM INDUSTRIES LIMITED.

TELEPHONE: 4467 P. P.

P. B. No. 1756.

TELEGRAMS: SHAFTINGS

TEE YEN BEE MILL STORES
RICE MILL ENGINEERS & MACHINERY MERCHANTS,

Dealers in:—

OIL ENGINES, ELECTRIC MOTORS, PUMPS & PUMPSETS, ETC.,
55, Thambu Chetty Street, MADRAS-1.

Trends of Trade

(To-day the world of Trade offers more and better opportunities to ambitious men and women, anxious to succeed in life than any other type of career. But competition is keen and in business as in everything else the biggest rewards go to those who have taken the trouble to perfect themselves and to increase their knowledge and efficiency.)

With the professions so over-crowded, more and more of the best brains in the country are embarking on business careers. The expert moves on to the top of his profession, while others have been content to drift. The Power will prove that pride.)

A FINE PHRASE

The Electrical Engineer and Contractor is a fine phrase but his future is rather on the lines of corned beef. Here and there some wealthy corporation or authority has the money to spend on a good electrical installation; but the ordinary householder has not. The electrical contractor is daily faced with advising his customer not how to arrange for the new or best installation, but how to make the best of the limited allocation from his budget which the latter could afford. It is really a testing time for conscientious contractors who understand the limitations of their customer's purse as well as the safety nature of their work to do.

A client was really annoyed with his local contractor for having quoted Rs. 40/- for running a heating point to his dining-room. He pointed out with pride that he himself had

done the job at a cost of not more than Rs. 10/- some flex, some staples, and a two pin 5 amp. socket and plug, taking the supply from a wireless plug.

So the days of festivals and feasts are gone to the electrical contractor perhaps never to return!

IMPORT AND EXPORT

The confusion and muddle existed 2 or 3 years ago in the administration of import and export has been improved by the Ministry of Industry and Commerce. The procedure has been rationalised and rendered smooth and expeditious. The vexatious delays are now rare. The credit goes to the Minister in charge.

INDUSTRIAL FRONT

Six and half miles east of Bangalore, on a plot of land of 360 acres, lies the new Telephone City of India where the Indian Telephone Industries was established in 1948 and the Indian Telephone Industries Ltd., (I.T.I.Ltd.,) function for the manufacture of automatic telephones, automatic exchange apparatus carrier telephone apparatus and other communication equipment.

The company began to function under the Ministry of Communications, Government of India with a Board of Management, consisting of the Secretary to the Ministry of Commerce as the Chairman, representatives from the Posts and Telegraphs Department, the Finance Department, the Automatic Telephone and Electric Co. Ltd., of London and Liverpool, the Government of Mysore and a non-official Director. The patent Rights, technique manufacturing information and the technical personnel were obtained through an agreement with the Automatic Telephone and Electric Co. Ltd., Liverpool.

The Telephone City was well planned. The permanent buildings for the factory consist of 8 factory units each measuring 120' x 220' with an administrative building which is of a three-floored store structure measuring 28,000

sq. feet with optimum light and ventilation: each of them is self-contained in all respects eg. sanitary arrangements, power unit etc., Railway sliding, necessary power, water supply, housing for the employees, co-operative hostel, canteen, sports club, hospital, library, transport system are all well laid for.

The I.T.I. Ltd., now produces 25,000 telephones a year of which most of the parts are manufactured in the factory. It is also manufacturing all the frame work and iron work for the automatic exchange equipment and assembling all the relays for the automatic switches. The Machine shop of the factory has extremely fine machinery. Facilities have been provided to mould all the bakelite bodies.

The beginning of 1950 saw the formation of I.T.I. into a private Joint-stock Company with a Board of Directors consisting of two non-official Directors. The capital of the Company is Rs. 2½ crores, the major portion of which is held by the Government of India.

The present national industry in these days of quick business through Telephones, which is nurtured under the auspices of the I.T.I. will grow more and more to the benefit of the country's economic wealth.

AROUND THE MARKET

After Deepavali holidays, The Madras Stock Exchange opened fairly steady. Share values rose only to a small extent but the gains were consolidated. The results of the elections in Britain have not produced the ex-

pected eager response from U.K. in Hides and Skins markets. The groundnuts market was dull with no keen buyers. Arrivals of the new crop pea-nut variety were fair and averaged about 80 tons daily. In Bombay progress in steel section featured trading on the Stock Exchange where other sections followed with a mild response. Textiles were additionally buoyed up by expectations of increased prices for superfine varieties of cloths, but with follow up lacking, enquiry petered out bringing in partial reaction.

The Reserve Bank of India announced one Nov. 15th that the Bank rate would be raised from 3 to 3½%. It is intended to prevent the scheduled banks from over-expanding credit by unloading securities in their portfolio. The increase has followed in the make of similar increases in the United Kingdom and France was a coincidence. It was a disinflationary measure. It would tend to curtail over investment and would act as a good damper on speculative holding of stocks and would have therefore a salutary effect on prices.

Later there was cautious trading in the Planting section. Business in the hides and skins market was passing through a critical period. Arrivals of new groundnut crops were fairly large and Calcutta interests were the main buyers. Buyers from Adoni were also interested to a small extent. Larger arrivals were reported in South Arcot and Tanjore Districts centres with the market tending to be slightly easier.



projection on the screen, the film is spin by jerks. The film must be at rest when the picture is photographed and must stop for a tiny fraction of a second on the screen. Each frame comes to rest for an instant before the next frame comes into position. All along the shutter of the camera or projector must be closed during the time the film is moving, to avoid blur. The key device for the same is the rotary shutter.

Efforts to make picture talk began about 1894. The major difficulties were keeping the phonograph and film synchronized and the 'phoniness' of the early phonograph. Both the difficulties were overcome and modern talkies began with the advent of electronic tube. The electrical recording brought new realism to the reproduction which was achieved by putting the sound right on the film, along with the picture. On a modern film there is a sound track, a narrow band near one edge while the film is being shot microphones pick up the dialogue and other sounds. An electronic tube converts the sounds into vibrations of light in a glow tube. Focussed on the sound track of the film, the tube makes a light-record. In the film projector, the variations in light caused by the track fall on a photoelectric cell; an electronic tube reconverts light to sound. In some cases the sound effects are made separately from the action photographed and are then 'dubbed in' in the film.

We shall continue the rest later.

Yours sincerely,
Power's Pearls.



Children's Corner

Dear Children!

Last time, I started by giving you an idea of a studio and its working. We shall continue now. Repetitions and out-of-door shots are finished. Now comes the task of making a single connected story out of these. That is the job of the film editor or cutter. Script in hand, he picks out the best shot of each scene and put them together in correct order. Scenes are shortened and faulty scenes are cut out as the case may be. It all requires skill and experience.

Immediately after the scene is shot, the film is developed and printed. The first prints called rushes are given to the cutter for processing. Later they are viewed and checked by the direction. They are also viewed by the producer and by sound-tract men also, in order to plan musical accompaniment and other sound effects to be dubbed in.

How do pictures move and talk? The moving picture projector flashes on the screen a rapid succession of still pictures—16 per second. Through persistence of vision, the prints are run through a projector at the same rate they reproduce the action before your eyes. In the original photography and the

EVENTS ABOUT ELECTRICITY

The Power we use

—Electricity

Self—instructor (Lesson 2)

(This is an electrical age. You have to press the button to put Electricity in Action. So extensively are electrical devices employed in home, farm and factory that a very large number of people need a sound knowledge of electricity—its generation, transmission and application. To this end in view, this series of lessons is placed before the reader.)

We have in lesson 1 defined the electron as the smallest possible quantity of electricity. We shall soon meet the word 'ampere' as the unit of current together with its smaller associated units, milli ampere and micro-ampere.

Electricity can be produced by either mechanical means as in the case of the dynamo or by chemical means as in the primary cell (torch battery) or secondary cell (car battery). The general current will flow along prepared paths metallic cables, wire, metal etc. The materials used for carrying current are known as conductors. Certain materials do not permit the flow of electricity through or along them, and they are known as insulators. Strictly speaking there are no perfect conductors and there are no perfect insulators for all, after some resistance allow some slight flow across them. Carbon, for example, does not permit of a ready flow of current and such of them are called resistances. The best insulators are those whose resistance to electric current is so great that the leakage across them is inappreciable.

The best conductors are all metals, the important among them being copper. It is used

in supply mains. Water is a tolerable conductor. Silver is a fine conductor but very costly. Another good conductor is iron but resistance increases with rise in temperature. The best insulator is air, apart from mica, glass, rubber, slate, ebonite, paper, cloth, silk, cotton, wax, shellac etc. All current carrying cables should be separated by insulators lest there should be a short circuit. The type of insulators used depends upon the nature of work and also on the voltage. With the exception of insulators, all substances conduct electricity to a greater or lesser degree. They are also called bad conductors or mild insulators. Carbon, Nichrome, Manganese etc., are best resistances. The property of resisting current flow is put to practical use as in the case of electric lamp, flat iron, heat radiator cooking stove-(to be continued).



THE DOME OF DISCOVERY



This magnificent building-housing exhibits which tell the story of Britain's achievements in discovery and exploration—is one of the most striking features of the South Bank Site. The dome itself, is the largest in the world, being 365 feet in diameter and 93 feet height and is made up of aluminium alloy throughout. One of the unusual features in the design is there are no windows. B.I.C.C. cables were used for sections of the extensive wiring installations for lighting and power distribution. One of the most interesting exhibits in the Dome is the giant 74 inch reflecting telescope of 30 feet in length and 8 feet in diameter.

B. I. C. C. Bulletin.



L. S. E. - Laurence, Scott & Electromotors Ltd.,— is a very well known name in the field of Electricity. They are one of the leading manufacturers of electric Motors for more than Sixty Years. Having started in 1883 the firm has grown in modest beginnings in Norwich to to the present one; the Company operating three large modern factories in Norwich and Manchester and employing more than 4,000 men.

Today L.S.E. offer to industry a wide range of machines from which a great majority of industrial electric power requirements can be met. Their chief manufactures are Electric Motors and allied machines upto 500 H.P. and Control Gear for use with its own or other Motors.

A few years back L.S.E. Ltd., adopted a new principle in Electric Motor construction, viz. "STEEL FRAME" Construction, which gives extra strength and rigidity, freedom from distortion, and accuracy of power which is possible. Better ventilation is also provided to the motor. There are very many other advantages which are not possible to be listed here.

As leading makers of Electric Motors, L.S.E. claim to have developed many characteristic features and patented designs of approved superiority during these years of their service to the Engineering World.

Testing of L.S.E. Machines is remarkably thorough. The new test-bed at Norwich is

claimed, probably to be, the best of its kind in the country, and good use is made of its facilities.

The makers claim that "L.S.E. are setting the best in Electric Motor design" and say that they can substantiate the same. Their wide range includes the following:—

General Performance Squirrel Gage A. C. Motors,

"EMCOL" Patented, Totally Enclosed, Fan Cooled, Motors,

"N-S" Variable Speed A.C. Motors,

Auto-Synchronous Motors,

Hypo-Synchronous Motors,

Slipring Induction Motors,

Low Current High Torque Motors,

Flame-proof Motors,

A. C. Crane Motors,

Loom Motors,

Fractional Horse Power Motors,

Motor Generators,

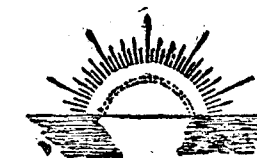
Welding Generators,

Alternators,

All types of D. C. Machines.

Motors for Ships' auxiliaries are specialised by L.S.E. and their Scott Winches can be found in almost all the Ships.

Any further details can be obtained from their sole agents, in India: Messrs. WILLIAM JACKS & COMPANY LIMITED, Madras, Bangalore, Bombay, Calcutta and New Delhi.



DELHI DIARY

(From our correspondent)

The First Test Match in cricket between India versus M.C.C. dominated the first week of last month. The over-confidence of the home team led them play into the hands of the visitors who were able to force a draw by field craft, combination and discipline.

The Central Committee of the Congress was busy in spite of local machinations and manipulation in the choice of the candidates for the coming general election. Many sur-

prises were found in the choice and Delhi knew little about some of the candidates chosen for the House of the People. Many of the local Congress bosses appear to pin their faith on the name of the Congress and not on their merit and integrity while the large majority of the villagers are indifferent about the election.

The journey to Delhi undertaken by Acharya Vinoba Bhava on foot has made a greater impression in the public mind than election manifestoes and addresses. His campaign for the land gift to the landless may account for a new approach to alleviate rural misery.

PLEASURES
&
PRIVILEGES
OF THE PEN



The life we live - Do you know?

Twice in the year the sun seems to stand in the heavens and the day remains about the same length for a week or more. This is at the time of the Winter and Summer Solstices (sol, the sun and sto, I stand) which take place respectively about December 22nd and June 21st. Early man watched the doings of the sun at the Winter Solstice with much concern. Early in history, December 25th was reckoned as the Winter Solstice and on it was celebrated the festival of the Nativity of Sun. There was rejoicing that the Sun was reborn and the life of the coming year assured. The adoption of December 25th for the celebration of the Birth of Jesus Christ came into being in the Roman Empire, to counteract the great rival religion—the religion of Sun worship. Christmas is the

occasion which reminds the world of Jesus Christ bringing a great breath of new life to the world; at Christmas people celebrate all that typifies, interprets and crowns which the world means.

Communism is as old the hills. It is to be found in a form in Plato's Republic, in Sir Thomas More's Utopia.

"What is a Communist? One that has yearning,

For equal division of unequal earnings,
Idler or burglar or both, he is willing

To Fork out his penny and pocket your shilling"

Communism is only aimed against Capitalism and not against Capital. Capitalism is a system, vicious, irreligious, without public spirit and mere congeries of possessors and pursuers. Real Communism is religious, has discipline and self-restraint.

MACHINE FOR EVERY INDUSTRY

WOOD WORKING MACHINERY

LATHES 3' to 12'

CLAEYS ENGINE-E

STEYR TRACTOR

LANCASHIRE AND VERTICAL BOILERS

ELECTRIX SPRAYERS

IMPERIAL KEIGHLEY

JAYEMS PUMPS

CAMPBELL

SERVICE AFTER SALES

JAYEMS ENGINEERING CO.,

MADRAS - BANGALORE - COIMBATORE - BEZWADA - SECUNDERABAD - NAGPUR

FEDERALS-669

FROM READY STOCKS

STEAM HEATED FRESH
WATER GENERATOR.
(BY EVAPORATION OF SALT OF DIRTY WATER)

MADE IN GERMANY.

Output about 20 tons (i. e. nearly 4400 gallons) of fresh water in 24 hours, eminently suitable for shipment installations, fisheries, ice—making plants, etc., where fresh water is not readily available. Supplied with a spare heating coil.

For Full Particulars, please apply to:

THE BRITISH & EASTERN ENGINEERING COMPANY,
16, General Patters Road, Mount Road,
Madras.

Phone: 85229

Grams: "BRITEAST."

Who is Who in Business & Banking.

Mr. C. Rajam, the managing Director of The India Company Ltd., (Oriental Buildings, Armenian Street, Madras 1) is a prominent figure in the Indian Business World. Born in November 1882 in Tanjore District, he had his early education at Kumbakonam. He started his business career at the early age of 20, as the representative of the Mysore Tanneries. His business initiative and enterprise made him start his own business in 1919 under the name "The India Coy Ltd.," dealing in Tata Coaltar, Asphalt and Steel. The year 1921 saw his venture in Motors and Motor Transport and to-day we find the 'Garage Ltd'.

In 1927 he made an extensive tour of the Continent and widened his experience and knowledge in the business world to the benefit of his countrymen. In the year 1930, he obtained the Kumbakonam Electric Licence for electrifying the revenue taluks of Kumbakonam, Papanasam and Tanjore Taluks and in 1933 the Negapatam Taluk. He is a pioneer in the field of electric supply development in the State.

The vital Steel Industry of the Country did not lose his attention. In 1933 he started the Indian Steel Rolling Mills, Nagapattinam to manufacture mild steel sections. Against odds he had to compete with the Tata Iron & Steel Coy Ltd., who later became a partner in the concern, which is working very satisfactorily and is producing over 20000 tons of steel materials per annum.

By far, the greatest achievement of Mr. C. Rajam is the founding of the Madras Institute of Technology at Chromepet (Madras) with his liberal donation of Rs. 5 Lakhs. The Institute provides higher technical education to students of all community. The Institute has met with ready response both from the public and the Government—provincial and central. It is modelled on the Massachusetts Institute of Technology in U. S. A. and has faculties (generally not taught by other Engineering Colleges in India) such as Aeronautical Engineering, Automobile Engineering, Instrument Technology, Electronics etc. Mr. Rajam is a man full of enthusiasm and energy. At the ripe age of 70, he is still leading his countrymen in the advancement of Industry and its pursuits.



THE UNITED ELECTRICAL WORKS

1/11 Umpherson Street, G. T. MADRAS.

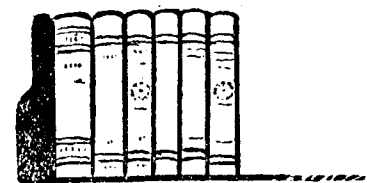
"ALL SORTS OF ELECTRICAL REPAIRS UNDERTAKEN"

REWINDING OF A. C. & D. C. MACHINES

ALL REWINDINGS ARE GUARANTEED

REWINDING A SPECIALITY UNDER EXPERT SUPERVISION

OIL ENGINES, ELECTRIC MOTORS, DYNAMOES, AGRICULTURE
AND DOMESTIC PUMPS AVAILABLE AT COMPETITIVE RATE.



Books & Brochures

"KNOWLEDGE IS POWER"

(Book Review is a regular feature of this monthly. Authors and Publishers are requested to send in their latest publications to the Editor).

The Practical Electrician's Pocket Book:

1951 Edition, edited by Roy. C. Norris. Odhams Press, 6, Catherine Street, W. C. 2. ... Price 5 sh. Post free.

Advice on the planning, installation and testing of wiring—system is given in this edition. The wiring section shows what factors have to be considered, explains the standards laid down by I. E. E. and other regulations, describes the methods and materials, old and new, that are available and indicates how the required tests are to be carried out.

Another important section is on Testing a Motor, another on Maintenance of Cookers; another on the Lighting Section. The number of pages has gone up to 550.

Engineering and Western Civilisation:

By James Kip Finch. Published by McGraw-Hill Book Coy., 330, West 42nd, St., New York 18. Pp. 397. Price \$ 5.

Members of all branches of the engineering profession and also historians and laymen will welcome this book as the first authoritative study of the engineers' contribution to society.

Dean Finch of the Columbia University tells a swift and powerful story of the

engineers 50-century struggle to make man the master of his own dwelling — the engineer's relations with farmer, worker, capitalist and Government.

The author is open to criticism for his espousal of the teachings of Lord Keynes and Sir Norman Angell. But his strong case for "an engineering interpretation of history" will be acknowledged by all.

Engineering News of India:

Edited by Prof. S. K. Roy and published by the Engineering Association of India, 35, Stephen House, Calcutta—Price Re.1-8-0.

This special Pooja Number devotes itself to a discussion of various industries with which engineering, both mechanical and electrical, is closely linked. The machine tool, metallurgical, agricultural implements and electric motor industries in India are dealt with. The other interesting articles are "Rivers in the Service of Man" by A. N. Khosla, "A Balance Sheet of India's achievement" by Dr. John Matthai. The editorial deals with the planning commissions Report.

GENERAL:

The Pilot Project:

The Pilot Project is the outcome of the new conception of libraries envisaged by UNESCO, as a part of its campaign for the spread of social education among adults. The Pilot library was established and inaugurated in New Delhi by Pundit Nehru and would be run by an autonomous body financed by the UNESCO, the Government of India and the Delhi Municipality. It would form an integral part of the literacy drive for children and adults. The needs of the general reader would be satisfied.

*Additions to Power's Library
The Engineering News of India
(Pooja Number.)*



Power

for your
Specific
needs...

- ★ ELECTRIC MOTORS—
Laurence Scott and Electromotors, Ltd.,
England.
- ★ STARTERS & SWITCH-GEAR
Allen West & Co., Ltd., England.
- ★ OIL ENGINES—
Horizontal, Robey of Lincoln, England,
Vertical, Pelapone Ricardo, Made in U.K.
- ★ PUMPSETS—
Sigmund Pumps, Ltd., England.
- ★ ALSO LATHES, DRILLING MACHINES,
WOODWORKING MACHINES and other
MACHINE TOOL & SMALL TOOL, TRAC-
TORS & IMPLEMENTS, EARTHMOVING
EQUIPMENT, HOT MIX EQUIPMENT.
STAINLESS STEEL, AGA Cookers and other
household appliances, etc., etc.

ask Jacks about it.

Phone: 3226 & 55129.

(Grams: LIMPET.

WILLIAM JACKS & Co., Ltd.

NATIONAL BANK OF INDIA BUILDINGS.

FIRST LINE BEACH, MADRAS.

Chitrakala—JG-1

Power's Publicities

SUCCESS
IN
SERVICE

We have passed the days of accidental success in business. Now a days success lies on Advertisement—and on nothing else.

Days of Crude Advertising are gone. A new era in this Art has dawned. Like Literature, Advertisement reflects the character and characteristic of a concern, nay even of a nation.

Advertising in the Daily is effective but ephemeral: like the butterfly it lasts only for the day and then lights a fire or feeds a goat. The Advertisement in a Monthly like the Power will keep fresh by tens of thousands of people who thumb over every day for the whole month or the year.

There is a Way—to lay out your Advertisement and Publicity, to select the media, to plan the campaign and at last to check up and record results. Therefore play your part through Power's Publicities whose watchwords are:

Success in Service

And Service in Success.



News And Notes

*"What'ever the busy bustling world employs,
Our wants and wishes, cares and joys,
These the "POWER" of our time-display,
And call them News and Notes,—the hodge Podge
of the day."*

PERSONALITIES:



The Man of the Hour is

Mr. Winston Churchill who is 76 years old. He is half-American through his mother. Enjoying a special prestige in America, he is the happy warrior, a modern Saint George in a shining armour who can kill the dragons. He is a professional politician whose business in life is to deal with problems of men and state, state and state. For the seventh time since 1925 Churchill heard himself proclaimed member of Parliament. Good old Winnie was elected in suburban constituency with a majority of 18,000 votes, in the recent Britain's elections. He had only a victory not a triumph and formed his Tory Government, with a narrow majority.

Comment is varied on the Labour Government record of 6 years especially in economic and foreign policy. The outstanding events of Atlee rule are the independence of India, Pakistan, Ceylon, and Burma. India's interest in the result of the General elections in Britain remains green due to her Commonwealth relationship—Churchill's rise to power forebodes if not evil, at least no good to India.

True it is that Churchill is the noblest as well as the most eloquent Englishman alive, he has come to power again with Britain's unsatisfactory role in world affairs and the labour Govt's.. lapses in Iran, Iraq and Egypt, when the domestic issues like high prices, shortage of food, housing and fuel, increasing taxes and debts have not been solved satisfactorily. With his deputies—Eden, Butler, Maxwell Fyfe and the rest—he has to take an intense interest in the destiny of western civilization, has to play a leading role in the future of the Moslem world where the crisis runs from Egypt to Iran. With his dynamic personality he may be able to make Russia see reason again.

The Conservatives will be more sympathetic to French schemes for pooling Europe resources. They are pledged to scrap iron and steel nationalisation, decentralise the vast state-owned transport and coal industries and will have a huge building programme. The welfare state will go on. To help pay for it and to cut taxes, Churchill has begun to make an assault on the cost of the Government.

Young Churchill, a rough rider in Cuba before Teddy Roosevelt ever got there, author, soldier, hero and cabinet minister all before he reached the age of 40, never did get the knack of seeing things from the narrow perspective of lesser men. Where they saw despair, he saw hope, where they saw defeat, he saw challenge, where they saw surrender, he saw opportunity to attack. The 76-year-old Churchill of 1951 has changed amazingly little from that galloping, youthful enthusiast. The old lion can still rouse the sluggish and the

faint of heart to follow a forlorn and glorious hope. Winston dares to tell history and his people that this is "their finest hour".

INSIDE INDIA:



The battle of the ballot box is starting very soon all over India. Who is the real winner? It is not the candidate or the party, but it is the collective majority of the voters. With his fair legal and correct tactics, the voter should choose the best candidate. In the fair and free election to come off soon, the do's and don'ts are many. To mention a few of each category. The first duty of the citizen is to get his franchise right and to see his or her name is registered correctly in the electoral rolls. The polling day will be holiday. At the polling station he will be given an identity slip. The ballot paper or papers will be given to him for election to the Assembly. He has to hand over the indentivity slip to the man near the Assembly enclosure. Then he reaches the ballot boxes kept screened and drops the ballot paper in the box of his favourite candidate. After coming out of the Assembly enclosure, he will be given the ballot-papers for the Parliamentary election. He must again cast his vote for the candidate he favours. With this he has to walk home and relax. He has to observe the special procedure if he is in a constituency which has to elect more than one member for the Assembly or the Parliament. The Don'ts for the voter are many but simple to observe. He should not get enrolled in more than one place. He should not disturb any political meeting. He should not spend anything for his candidate without authorisa-

tion. On the polling day no public meeting or canvassing is authorised by law. It would be an offence if a voter goes to the polling station in a conveyance provided by the candidate or his party. Impersonation at the polling station is criminal. The secrecy of the ballot box should be kept. All these are intended to make democracy successful and lead the country to prosperity.

The Constituent Assembly of Jammu and Kashmir representing 3 million people was inaugurated in spite of the fact that the Kashmir issue had remained undecided before the United Nations for 4 years with the formation of the C. A. and the initiative had passed to the people to shape their destiny.

In the sudden and untimely death of His Lordship Mr. M. H. J. Kania, Chief Justice of India, the judiciary of the Union has sustained a great loss. He came from Gujarat and began his practice at Bombay High Court. He became the judge of the same court in 1933 and acted as the Chief Justice in 1944. He was appointed to the Federal Court in 1946 and in 1947 became the Chief Justice. He maintained the high dignity of his office and was always for upholding the independence of the judiciary.

Two more zonal railway systems were formed—the Central Railway Zone by absorbing the G.I.P. Nizams State, Scindia, Dholpur Railways and the Western Railway Zone comprising the B.B. and C.I. Sourashtra, Rajasthan and Jaipur Railways. The Western has a route mileage of 5,399 whereas the Central Railway has 5,607 miles. But the Central serves a larger area of 210,000 square miles. This zonal system is expected to result in greater efficiency in administration and in the standardisation of equipment and operating practice.

An honourable compromise was arrived at between the Mysore Government and the Central Government by the State Government agreeing to import a judge from outside

the state to try the L. S. Raju case in Bangalore.

Coming nearer home, the Kokilam has flown away leaving an ocean of fans to mourn her irreparable loss. An artist of excellent talents, the music firmament, the popular screen star, Sreemathi. N. C. Vasanthakokilam the sweet and soul-stirring songster of South India passed away at the early age of 32. Simple and unostentatious, pleasing and pleasant, she has revolutionised the field of music. Humane and charitable she gave many benefit performances for the cause of charity. She has left a major portion of her property to women's institutions. The music lovers of India, nay of the world, will miss this beautiful and melodious bird of passage.

INSIDE EUROPE:

Leon Jouhaux, the French Trade Union leader, has been awarded the Nobel Peace Prize for the year 1951. He has been the chairman of the International Council of the United Europe Movement since 1949. Born in 1879, he started his career as a match worker. In the inter-war years he held posts in the International Labour Organisation.

D. W. Matters is dead at Hertfordshire, England. He was the London Representative of the Hindu since 1933. Born in South Australia in 1881, he had his own battle of life and served for the cause of journalism in Canada, Jamaica, Japan, South Africa and other countries. Mystery of Jack the Ripper, Through the Kara Sea, are the products of his pen. He became interested in Labour Movement. This fine Journalist was always cheerful and hearty and the world will mourn his death.

INSIDE AMERICA:

In a world-wide broadcast recently on 'International' Arms Reduction, President Truman's call to Kremlin is worthy of note. As he himself has confessed that it was strange that he talked about reducing armed forces and armaments when he was working so hard to

build up his country's military strength. But he justified on the ground that both had the same aim—the aim of security and peace. His 3-point plan consisted in taking their inventory of all armed forces and armaments, the nations should work out specific arrangements for the actual reduction of armed strength, this goal should be achieved with full knowledge and fairness to all. He hoped to bring about the greatest period of progress for the world in all recorded history in his generation.

The U. N. Security Council has approved the Anglo-American resolution calling on Dr. Frank Graham to continue discussions with India and Pakistan on Kashmir to solve the four-year-old dispute and then report. And talks have begun in Paris on the same between Dr. Graham and the concerned representatives.

INSIDE ASIA & AFRICA:

Charges have been made by Egypt against Britain, as U.N. session has not helped to resolve the differences over the Suez Canal. Britain is in control of the main Egyptian ports and the Canal garrison has been reinforced by airforce.

The truce teams over Korea have made no progress because agreement on the agenda was difficult. Another winter campaign lies ahead and some stories of atrocities are getting extra publicity.

The Cabinet crisis in Nepal has been settled by the withdrawal of the Ranas from the interim Government and the assumption of office as Prime Minister by M. P. Koirala. The Congress group has apparently triumphed over the Ranas. However, the future pattern of Government is to be prescribed by the Constituent Assembly. And the influence of India on Nepal may be seen in the provision for a ministry of planning and development.

SPORTS:

Prophecies were falsified in the recent Delhi I Test in cricket between India and M.C.C. The Indian batting was strong but slow with Vijay Hazare 164 not out and with V. M. Merchant 154 in the first innings. Shinde took the credit of taking 6 wickets from M.C.C. in their first innings. Fielding on the Indian side was poor, scoring slow. It is a lesson to note that the concentration of Hazare, the self-confidence of Merchant, the persistence of Mankad and the striking from of Shinde were alone not enough to win the Test Match. Bombay is witnessing the 2nd Test in the second and third weeks and the inclusion of L. Amarnath fast scorer, combined with the concentrated correct fielding by the Indian Team may lead the way to success for India.

After the most thrilling Cricket Test match seen at Brisbane in Australia, The Australia scrambled home to victory in the first Test against West Indies by 3 wickets. Hole was the hero of the Australian Innings. Ramadhin was the West Indies bowling hope and bowled 40 of the 85 overs of the innings - a remarkable

bowling feat. Anyone will take off his hat to Ramadhin for his spin bowling.

Ceylon, the holders, retained their title in the inter-University Boxing Tournament for the University Challenge Cup (presented by the Madras University). The Pin Weight, the Paper Weight, the Fly-Weight, the Welter-Weight classes went in their favours.

On an educative tour, the Japanese Hockey team arrived in India to play Test Matches in Calcutta, Allahabad, Delhi, Amritsar and Bombay. Naturally they had to learn a lot from proven masters - our Indian world champions.

Many punters live on hope whereas all the horses live on grass. The 5 month-campaign of the Guindy Race has commenced already. Guindy will have the fortune of securing the Premier Race Recorder, a photo-finish camera, the first of its kind in the East. About 300 horses will be saddled during the season. The performance of Jackeys Tyrrell, Masterson and Wallace may bring fortune to those who bang on them.

In a Few Lines

Dr. Mossadeq, Iranian Premier, returned to his capital after a sojourn in the U. S. for consideration of the Anglo-Iranian dispute without success.

Srimathi Vijayalakshmi, the Indian Ambassador to the United States, resigned and left for India to contest the elections with a feeling of "I am going home, I feel I am leaving home."

W. S. Hazzare scored 179 in the first round match in the West Zone of the Cricket championship.

M
A
T
T
E
R
S

If ever a man has grown to his office, it is Mr. Truman.

An annual world festival of forests may be set up by FAO at the suggestion of India's Food Minister.

A Passenger-carrying Dakota crashed down in flames within sight of its destination—the Dum Dum air port near Calcutta. Mr. Deshabandhu Gupta, President of the All India Newspaper Editors' Conference Mr. P.S. Visvanatha Iyer, a Madras Civilian were among the victims.

BEEHIVE

MANUFACTURES

STEEL STRUCTURES, FERROUS & NON-FERROUS CASTINGS, MACHINERY, TEXTILE, OIL & SUGAR MILL EQUIPMENT, MODERN DESIGNS OF GATES & GRILLS WELL EXECUTED.

SPECIALISE

IN

HEAT TREATMENT, AUTOMOBILE & TRACTOR SPARES

INDIAN COMMERCE & INDUSTRIES CO., LTD.,

STRUCTURAL, CIVIL, MECHANICAL & ELECTRICAL ENGINEERS

PROPRIETORS:

BEEHIVE FOUNDRY ENGINEERING WORKS,

"BEEHIVE BUILDING"

MADRAS — 1.

95, BROADWAY

Works Extension:

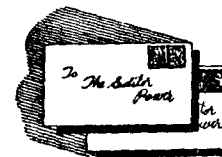
KOWTHA STEEL PRODUCTS,
Ramavarappadu,
M. S. M., RY., KISTNA DT.

Branch:

KOWTHA BUILDINGS,
Governorpet,
VIJAYAWADA.

Oil Mills:

EXCELSIOR OIL MILLS,
Hanumanpet,
VIJAYAWADA.



THE INDIAN MERCANTILE CHAMBER OF CEYLON,
FORT, COLOMBO.

9th Nov., 1951.

I can unhesitatingly say that this journal is a useful asset for business men dealing in electrical and mechanical goods.

(Sd.) Honorary Secretary.



Here And There

(Those who read the Power may be able to find here a fun and there a frolic, here a pinch and there a punch, here a soup and there a saucer.)

MEN AND MONKEYS:

Men and Monkeys played 'hide-and seek' in mid-air between Calcutta and Delhi recently. The game started after the monkeys escaped from one of the cages in a BOAC freighter in which 1000 of them were travelling to the U.S.A. 20 of them began to roam about on the floor and swing joyously on the roof fittings. Many of them were then enticed with the help of biscuits and nuts. The rest were over-powered with the help of blankets.

CUT AND GROW:

Passions are like roses, the more you cut them, the more they grow-Ibid.

PENTAGON BUILDING:

The Pentagon Building is a 5-sided, 5 storied Structure at Arlington, Va., across the Potomac from Washington. It was built during World War II and was the nerve centre of the nations' fighting forces. The Pentagon Building, a veritable labyrinth, has over 16 miles of Corridors.

555

The beautiful Washington Monument is 555 feet high, the world's tallest masonry building.

ALL ABOUT MOON:

Moon's distance from the earth is 2,38,000 miles. It is $\frac{1}{4}$ size of the earth, with a diameter of 2,163 miles. We can see clearly its mountains, craters and plains. There is no

life on the moon. There is air or clouds on the moon. It is at the complete mercy of the sun's rays. It revolves about the earth, once every $27\frac{1}{3}$ days and keeps the same side towards us as it rotates on its own axis at the same rate that it travels around the earth. Its temperature rises to 265° F. during the day and falls to 116° below zero at night.

76 MILLION:

The world-wide total telephones is 76,800,000 of which the United States alone has 44,220,000.

BIG:

In the Premier Diamond Mine near Pretoria, a big diamond has been found. It weighs $283\frac{1}{2}$ carats and is $2\frac{1}{2}$ " long and $1\frac{1}{2}$ " wide and $\frac{3}{8}$ " thick and is of excellent quality.

HAPPY:

If you want to be happy for a few hours get drunk;

If you want to be happy for a few days get married;

If you want to be happy for a life time become a gardener.

— Chinese proverb.

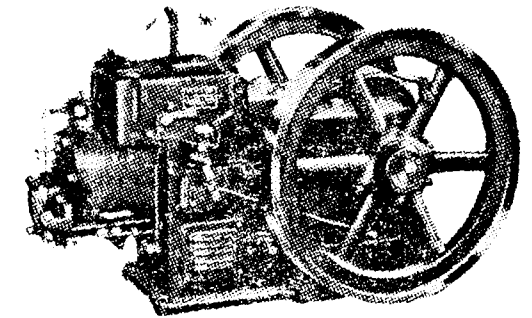
THOUGHT FOR THE MONTH:

Poverty is my pride. Death is bridge that uniteth friend with friend. The love of the world is the root of all evils.

—Saying of Prophet Muhammad.



- * RELIABILITY
- * EASY STARTING
- * LOW OPERATING COST
- * DURABILITY
- * ACCESSIBILITY
- * INTERCHANGEABILITY
- * RATIONAL COOLING



THESE 7 GREAT MERITS MAKE DAIHATSU DIESELS

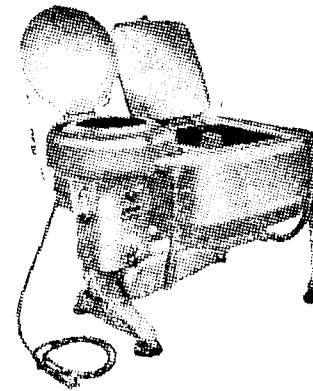
THE POPULAR CHOICE!

Indent Orders for Guaranteed delivery accepted.

Book your Indents SOON. Avoid Disappointment.

BOON TO HOUSEWIVES!

Ideal Washing Machine for Domestic Use!!



- * PROLONGS LIFE OF THE CLOTH
- * MOST ECONOMIC AND EASY TO OPERATE
- * MAXIMUM EFFICIENCY & MINIMUM ELECTRICITY CONSUMPTION
- * DRASTIC REDUCTION IN PRICES.

AVAILABLE FROM:

BATLIBOI & CO.,

ENGINEERS AND MACHINERY IMPORTERS

H. O. :—FORBES ST., FORT, BOMBAY.

BRANCHES:—MADRAS — CALCUTTA — DELHI — AHMEDABAD — COIMBATORE

Madras Markets

- 1. Is regular every month.
- 2. Publishes current prices in electricals and mechanicals.
- 3. Contacts suppliers and buyers.
- 4. Maintains free service to regular subscribers
- 5. Offers assistance for business careers & trips

While the management takes great pains in publishing accurate prices gathered from reliable business firms and stockists of repute, it is no way responsible for the inaccuracies, if any, which may be caused due to fluctuations prevailing.

We invite your enquiries on all items not listed here. The management is at your service at all times.

ELECTRICALS

1. ACCESSORIES

	Rate.	per doz.
	RS. A. P.	
SWITCHES		
Bakelite English, S.P.		
5 amps	17 8 0	..
Bakelite Indian, S. P.		
5 amps	11 0 0	..
Porcelain base English		
S.P. 5 amps	18 0 0	..
HOLDERS		
Bakelite Pendant Eng.	8 0 0	..
1/2"	12 0 0	..
5/8"	12 0 0	..
Batten Holders	13 4 0	..
P.B. Holders English	16 4 0	..
1/2"	18 0 0	..
5/8"	16 8 0	..
Batten	16 8 0	..
Adaptor (Bak)	7 8 0	..

CEILING ROSES (2 plate Bak)			
English	8 0 0	..	
Indian	5 8 0	..	
Cutouts (English)	8 4 0	..	
WALL PLUGS			
Bakelite 5 amps 2 pin			
complete (Eng.)	14 0 0	..	
3 pin...	27 0 0	..	
SHADES & REFLECTORS			
Enamel Iron Shades 8"	10 0 0	..	
10"	15 0 0	..	
Water Tight Fittings			
complete Indian	6 4 0	Each	
WIRES & CABLES			
		per coil of	
V.I.R. C.M.A. 1/18	26 8 0	100 yds.	
3/20	40 8 0	..	
7/22	50 9 0	..	
7/20	66 5 0	..	
7/16	143 4 0	..	
C.T.S. Single Core 1/18	45 12 0	..	
3/20	64 13 0	..	
7/20	97 12 0	..	
Twin core 1/18	71 2 0	..	
3/20	120 11 0	..	
7/20	190 7 0	..	
W.Proof Sgle. Core 1/18	40 3 0	..	
3/20	59 12 0	..	
7/20	94 9 0	..	
Twin Core 1/18	76 13 0	..	
3/20	113 0 0	..	
7/20	182 11 0	..	
FLEXIBLE WIRES			
	14/36	23/36	
Cotton	39 0 0	40 0 0	..
Workshop Flex			
2 core	62 3 0	74 1 0	..
3 core	92 0 0	108 14 0	..
P.V.C. WIRES EQUAL TO V.I.R. (from I.A.E.C.)			
250 v. Single Core P.V.C. insulated wires			
1/044	Cat No. 2120	18 0 0	
3/049	2121	24 0 0	
1/064	2122	27 0 0	
3/036	2123	30 2 0	

EQUAL TO C.T.S.			
1/044	2120 S	34 11 0	
3/029	2121 S	43 3 0	
1/064	2122 S	48 0 0	
3/036	2123 S	53 5 0	
TWIN FLAT			
1/044	2220 S	55 8 0	
3/036	2223 S	101 8 0	
250 V. Flex wires single core P.V.C. insulated			
14/0076	2141	15 1 0	
	2141 B	12 1 0	
23/0076	2142	20 2 0	
	2142 B	15 14 0	
Other items on enquiry.			
LAMPS (B.C. Clear 230/250 volts.)			
	RS. A. P.	per doz.	
5 Watts	16 8 0	..	
10 "	15 12 0	..	
15 "	14 4 0	..	
25 "	14 4 0	..	
40 "	14 4 0	..	
40 " gas filled	16 8 0	..	
60 "	18 0 0	..	
100 "	24 0 0	..	
150 " each	3 7 0		
200 " "	5 7 0		

II. METERS

HOUSE SERVICE			
A.C. Single Phase 230/250 volts, 50 cycles			
2 1/2 amps. 5 amps. 10 amps.			Each
Ganz 40 0 0 40 0 0 40 0 0			..
C.G.S. 38 8 0 38 8 0 38 8 0			..
Ferranti 43 8 0 43 8 0 43 8 0			..
GANZ, 3 PHASE, 3 WIRE METERS, A.C.			
	RS.	Each	
10 amps	105	..	
20 amps	120	..	
30 amps	130	..	
50 amps	155	..	
GANZ, 3 PHASE, 4 WIRE METERS, A.C.			
	RS.		
10 "	145	..	
20 "	168	..	
30 "	182	..	
50 "	217	..	
100 "	272	..	
AMMETERS 3 VOLTMETERS (English)			
Ammeters 4" dial 0-10 amps	52 8 0	..	
0-20 "	52 8 0	..	
0-30 "	52 8 0	..	
Voltmeters 6" dial 0-60 volts	75 0 0	..	
0-120 "	80 0 0	..	
0-160 "	85 0 0	..	
0-230 "	90 0 0	..	
for use on A.C. or D.C.			

III. MISCELLANEOUS

ZINC PIPES			
11 m.m.	3 4 0	per length	
16 m.m.	4 12 0	..	
11 m.m. Elbows	1 8 0	per doz.	
16 m.m. "	2 0 0	..	
CONDUIT PIPES			
	3/4"	1"	
English	54 0 0	85 0 0	100 ft.
Indian	49 0 0	80 0 0	..
BRACKETS & GALLERIES			
P.B. Brackets	7 8 0	8 4 0	per doz.
O. C. "	8 0 0	9 0 0	..
D.C.C. WIRES			
16 S.W.G.	4 4 3	per lb.	
17 S.W.G.	4 9 3	..	
18 S.W.G.	4 11 6	..	
19 S.W.G.	4 14 6	..	
INSULATING MATERIALS			
Henley Black insulating tape 1/2"	6 4 0	per 100-yards	
tape 3/4"	9 5 0	..	
Callenders 1/2"	1 9 0	25 yards-roll	
TRANSFORMERS			
English Victor V & E, 6.8 volt	4 8 0	each	
LINK CLIPS			
Camel brand tinned joint clips 1 1/2" & 1 3/4", 1 1/2" & 2"	0 5 6	per box	
HARD DRAWN BARE COPPER WIRE			
No. 4 S.W.G.	2 1 0	per lb.	
6 "	2 1 0	..	
8 "	2 1 0	..	
FLOURESCENT FITTINGS			
Sylvania 4', 40 W. lamp day light	17 12 0	each	
Philips Holland 4', 40 W.	18 4 0	..	
Sylvania 2', 20 W. day-light	13 8 0	..	
Philips Holland 2', 20 w.	13 0 0	..	
Upadhyaya 40 W. Choke (India)	5 14 0	..	
HEATING & COOKING APPLIANCES			
230 V. Water Heater (Eng.) 700 W	12 0 0	..	
Auto Control Iron A.C./D.C.	27 0 0	..	
Stove (Eng.) 1000 W.	25 0 0	..	
Soldering Iron (Eng.) 65 W	14 8 0	..	
125 W	25 0 0	..	

IV. OTHER ITEMS

MERCURY VAPOUR LAMPS	[Complete with Choke and Condenser]	RS.		
80 Watts	...	150	0	0
125 Watts	...	175	0	0
250 Watts	...	225	0	0

CONVERTORS

Rotary convertors, compound wound fitting with heavy duty ball bearings, constant speed, Drip proof, 0.8, P. F. complete with starter (Eng.)

Size in K.V.A.	D.C. in put	A.C. out put	50 cycles.	single phase.	Rs.	A.	P.
1	220/110 volts	...	950	0	0		
2	220/110	..	1,350	0	0		
3	220/110	..	1,650	0	0		
4	110/110	..	1,650	0	0		

GENERATORS

D.C. 110 volts
3 KW 1400 R. P. M. Generator Rs. 1,350
Regulator Rs. 96.
5 KW 1400 R.P.M. Generator Rs. 1,450,
Regulator Rs. 110.
A.C. Columbia 0.8 P.F. 3/50/440, star connected 4 wires (220/230 volts) between a phase and neutral wire, suitable for belt drive and direct coupling complete with exciter etc.

K.V.A.	K.W.	R.P.M.	Price
31.5	25	1000	Rs. 5,750
50	40	..	Rs. 6,750
62.5	50	..	7,250
75	60	..	8,250

Onam A.C. Generating set

Model W3M, 115 volts 50/60 cycles, (dial speed), Generating set, with 2 cylinder engine etc. ... Rs. 1,750

ELECTRIC BLOWER

Wolf type NWB portable blower suitable for operation on single phase, A.C. 50 cycles and D.C. 230/250 volts complete with starting switch, 15 feet 3 core T.R.S. Cable, moulded hard rubber, nozzle 11" long, capacity 60 cubic feet per minute ... Rs. 350
Also Wolf Electric Drills of various types and spares available from ready stock.
Other makes on application.
(M/s. Rallis India Ltd.)

ELECTRIC COFFEE GRINDERS & ROASTERS

Mocca (Swiss) No. 2 with 1/3 H.P. Motor A.C. 230/250 volts, single phase, 50 cycles complete with container of 2 lb. interruptor with electric cable 1½ meter at output of 50 lb. per hour ... Rs. 850
Bharath (Indian) Coffee grinder No. 1 size capacities 30 to 40 lb. per hour suitable for 1 H.P. ... Rs. 250

FANS

Table Fans (fixed) A.C.

I. E. W.	Size	Rs.
Phoenix	16"	120
"	14"	97
"	16"	102
Kassels	16"	125

Ceiling Fans A.C.

Complete with regulator, rod etc.

Size	Rs.
Crompton 60"	200
" 50"	182/8/0
" 48"	170
Lucky 60"	180
" 56"	168
" 48"	160
" 36"	130

Kassels and Anand and Azad on enquiry.

Phoenix 60"	Price
" 56"	194
" 48"	179
" 36"	166
" 36"	136

Exhaust Fans A.C. 230/250 volts, single phase.

Blade size	R.P.M.	Air Displacement cft.	Consumption.	Price. Rs.
7½"	1200	250	25 watts	95
12"	1350	1250	80 "	210
15"	1200	1500	110 "	210
24"	700	5300	270 "	475

D. C. exhausts fans on application.

V. MOTORS & SWITCHES ETC.

ELECTRIC MOTORS

Make—Crompton Single phase, 230/250 volts, 50 cycles Capacitator type

H.P.	R.P.M.	Rs.
5	1430	190
3		225
4		225
1	1420	267/8

3 phase, 400/440 volts. 50 cycles	H.P.	R.P.M.	Rs.
	3	1430	365
	5	1430	487/8
	7.5	1430	600
	10	1440	665
	10	940	840
	15	1440	825
Make—L. S. E. 3 phase, 400/440 volts, 50 cycles	H.P.	R.P.M.	Rs.
	3	2880	327
	7.5 (Emcol)	960	800
Pulley and Rails extra.			
N.E.I. Squirrel Cage Induction Motor suitable for A.C. 3 phase 400/440 volts 50 cycles supply.			

SCREEN PROTECTED TYPE MOTORS

H.P.	RPM	960	1440	2800	
1	Rs. 285/-	Rs. 254/-	Rs. 284/-	each.	
1½	Rs. 333/-	Rs. 275/-	Rs. 309/-	each.	
2	Rs. 369/-	Rs. 297/-	Rs. 329/-	each.	
3	Rs. 465/-	Rs. 347/-	Rs. 370/-	each.	
5	Rs. 600/-	Rs. 475/-	Rs. 452/-	each.	
7½	Rs. 700/-	Rs. 575/-	...	each.	
10	Rs. 825/-	Rs. 645/-	...	each.	

Prices: Less 5% to consumers.

Less 7½ % to dealers.

(M/s. Batliboi & Co.)

SWITCHES & STARTERS

Simplex I.C.D.P.	15 amp	250 volts	Rs. 6/8
M.E.M. D.P.	15	.. 250	.. 122 K.A. .. 12
M.E.M. T.P.	15	.. 500	.. 315 K.A. .. 20
M.E.M. T.P.	30	.. 500	.. 330 K.A. .. 30
M.E.M. T.P.	60	.. 500	.. 360 K.A. .. 60
M.E.M. 10 S.D. starter			.. 75
M.E.M. 5 D.S.			.. 55
M.E.M. 44 A.D.S.			.. 37/8
M.E.M. 24 A.D.S.			.. 36
M.E.M. 84 A.D.S.			.. 40

M.E.I. Direct on Line Starter up to 5 H.P. 68
M.E.I. Air Break Star Delta Starter up to 12.5 H.P. 136
M.E.I. Air Break Star Delta Starter up to 13 to 20 H.P. 153
(M/s. I.A.E.C.)

TIME SWITCH

Venner type MDISL time switch self-starting synchronous motor driven, single, pole, A. C. 230/250 volts, 50 cycles, 15 amps capacity with arrangements to switch on and off automatically at predetermined timings Rs. 125.
Other types on application.

VI. PUMPS & PUMPSETS

SRI PUMP for direct coupling.	A impeller	B impeller
Size	Rs. 220	Rs. 230
2" x 2"	Rs. 235	Rs. 250
2½" x 2½"	Rs. 244	Rs. 250
3" x 2½"	Rs. 250	Rs. 259
3" x 3"		Rs. 339
4" x 3"		Rs. 344
4" x 4"		

—for belt drive with fast and loose pulleys

Size	Rs.
2" x 2"	230
3" x 2½"	250
2½" x 2½"	255
3" x 3"	290
4" x 3"	295
4" x 4"	365
5" x 4"	370 less 10%

SHIVAJI SELF PRIMING PUMPS

2½" x 2½"	280
3" x 3"	280
3" x 3" (heavy duty)	297
(used for direct couple or V belt drive)	

SIGMA PUMPS

Type NL 4. 2½" x 2½" 450
Type N. 62a. 3" x 3" 450
Sigma type N62a. R3" x 3" pump with flexible couplings and a 4 H.P. BTH. 400 volts, 3 phase, 50 cycles, 2800 R.P.M. Motor complete with suitable starter without Bed Plate Rs. 800

PUMPS (Chandra Foundries)

C.F.M. 3" x 2½"	... Rs. 210
(direct)	
Chandra 3" x 3"	... Rs. 275
(belt drive)	

Sugar Cane Crushers

ZAMINDAR	... Rs. 1,250
KISAN	... Rs. 750

(M/s. Chandra Foundries.)

AUTOMATIC DEEP WELL PUMPSETS

Myers Self-oiling automatic water system 340 gallon per hour at a height of 100 ft. with ¼ H.P.A.C. motor with 42 gallons pressure tank, automatic switch ... Rs. 1,175
Goulds' Best American make C.I.D.C. 3542 pump set comprising 42 gallon pressure tank with fittings, floating switch pressure gauge worked by means of V belt with ¼ H.P. A.C. single phase, 230 volts, 50 cycles motor for automatic ... R. 850

MECHANICALS

VII. DIESEL OIL ENGINES

RUSTON (vertical)				Price.
Engine	Cylinder	H.P.	R.P.M.	Rs.
1 V.T.H.	1	5-7½	1000-1500	2,300
2 V.T.H.	2	10-15	1000-1500	3,300

PETTER (vertical)				
A.V. 1	1	5	1,500	1,500
A.V. 2	2	10	1,500	2,250

NATIONAL (horizontal)				
A.H. 1	1	5	1,500	1,650
J.B.	1	10	500	4,650
K.B.	1	12	500	5,250

H. M. G. (vertical)				
IS 16	1	10-12	800-1000	3,250

LISTER (vertical)				
3-1	1	3½	650	
5-1	1	6	950	
10-2	2	12	650	

YANMAR (horizontal)				
S-4	1	4	750	1,200
S-6	1	6	700	1,650
H-10	1	10	600	2,800

ROBEY (Single Cylinder Horizontal)

Diesel Engine Type

HSO/16	23 H.P.	Rs. 8,850/- each
„ Type HSO/16A	26 H.P.	Rs. 10,800/- each
„ Type HSO/17	40 H.P.	Rs. 15,900/- each
„ Type HSO/20	50 H.P.	Rs. 18,900/- each
All F. O. R. Madras—Subject to price confirmation.		

LORENZ (horizontal)				
Cylinder	H.P.	R.P.M.	Rs.	
E.B.N.	1	7	1,300	2,100

SKODA (vertical)				
I. S. 110	1	10-15	1,500	3,100

COOPER OIL ENGINES

Cooper, (horizontal)				Price
	H.P.	R.P.M.		
1. R.C.A.	5/6	700	2,150	
2. R.C.B.	8/9	550	3,463	
3. R.C.C.	10/11	500	3,895	
4. R.C.D.	13/14	450	4,390	
5. R.C.E.	16/18	400	4,975	
6. R.C.F.	18/20	375	5,185	
7. R.C.G.	25/27	360	8,400	
8. R.C.H.	28/31	340	9,465	

SHANKS (vertical) Cylr.				Rs.
	1	8	1,200	2,400
B-F Sanders (21)	1	6-8	1000-1200	2,160
(all cold start engines).				

DIHATSU DIESEL OIL ENGINES

Horizontal Model

Type No. OH-5, 9 H.P.
700 R.P.M. Rs. 2,800/- each

Less 5% to customer.
Less 5% and 5% to Dealers.

Type No. OK-9, 5/6 H.P.
1000/1200 R.P.M. Rs. 1800/- each

Less 10% to customer.
Less 10% and 5% to Dealers:

(Messrs. Batliboi & Co.)
ENGINE H. P. R.P.M. PRICE

Vertical				
"Russell Newbery"	7/10	8000/1200	Rs. 3135/-	
"Claeys"	10/12	1200/1500	3355/-	
"-do-	9.5	600	3345/-	
"Steyr"	12/14	650/750	3650/-	
	7/9	850/1050	2685/-	

Horizontal				
"Imperial-Keighley"	15/16	490	5756/-	
"-do-	23/25	400	7500/-	
"-do-	26/28	430	7750/-	
"Campbell"	15/16½	450	5750/-	
All Single Cylinder—				
M/s. Jayems Engineering Company, Madras.				

VIII. HARDWARE

GALVANISED PIPE FITTINGS (local)

	2"	2½"	3"	4"
Bend	4 8	9 0	15 0	17 8
Elbow	3 8	6 4	7 8	15 0
Coupling	2 0	2 4	2 8	4 4
Tee	3 12	6 0	8 0	16 0
Flange	3 0	3 12	4 8	6 8

BELTING				
	Indian	English		
2"	1 4	2 12		
3"	1 12	3 8		
4"	2 4	5 0		
5"	3 0			
6"	3 8			

HOSES				
Suction	Ply	Price		
2"	3	3 12		
2½"	3	4 8		
3"	3	4 12		
Delivery (Armoured)				
2"	3	2 12		
3"	3	3 8		

FILTER POINTS				
Size	Indian	American		
1½"	20 0	45 0		
1½"	32 0	52 0		

PULLEYS

Dia (inch)	37	8	85	0
2"	4"	5"	Phase	6
8	1" 1¼"	1½"	bore at as	12 per inch
10	2"	"	"	14
12				"
16				"

FOOTVALVES

Size	Price
2"	15
2½"	18
3"	20
4"	28

FLOUR MILLS

Make	Size	R.P.M.	H.P. (required)	Out put	Price Rs.
Indian	10"	600	3-4	200 lbs.	275
"	12"	550	4-5	300 lbs.	350
"	14"	550	5-6	400 lbs.	350

RICE HULLERS

Size	R.P.M.	H.P. (required)	Out put	Price Rs.
Indian No. 1	750	20-22	50 bags	450
" No. 7	850	12-15	30 bags	400

DISINTEGRATOR

Size No.	R.P.M.	H.P. (required)	Price Rs.
0	5000	4-8	850
1½	3300	8-16	1,600
2½	2500	12-25	2,750

Other items on enquiry



Service To Subscribers.

We receive enquires from merchants and manufacturers looking for sources of supply or sale. If you help us to meet these enquiries, you will be helping yourself in your business. Fill in the answers to the questions given below and send this form to us.

1. Description of material—
2. Specifications—
3. For sale or purchase—quantity
4. Ex-Stocks or Forward Delivery.
5. Lowest quotation F.O.R. your station.

From

Your name and Address _____

Telegraphic Address _____

PANEL ADVERTISEMENTS

Charges under this section are Rs. 30/- per column of 1 inch per year.
(minimum contract for one year.)

Pulleys, W. I. & C. I. Malhotra Mill Store Co., 39, Thambu Chetty St., Madras. Telephone No. 3508.	Industrial Stores Trading Company, 11, Mclean St., 1st Floor G. T. Madras. WE OFFER FROM READY STOCKS. RED VULCANISED FIBRE SHEETS & RODS. "KINGFISHER" GREASE CUPS. CHAIN PIPE WRENCHES. TAILOR'S SCISSORS. PINKING SHEARS (FOR CUTTING TEXTILE DESIGN SAMPLES.) LUCAS GIRDER PATTERN ADJUSTABLE SPANNERS.
TO LET	TO LET



WHERE TO BUY ?

ELECTRICAL ACCESSORIES Etc.

Messrs. M. T. Rajen & Co.,
195, N. S. C. Bose Road, Madras 1.
Fomra Brothers,
392, Mint Street, Madras 3.
Modi & Modi
11, Lingha Chetty Street, Madras 1.
Viswanathan & Co.,
103-A, Godown Street, Madras 1.
Seeyansee & Co.,
55, Anderson Street, Madras 1.
The Electrical & General Supply Co.,
170, Broadway, Madras 1.
T. G. Pathy & Co.,
230, Govindappa Naick St., Madras 1.

ELECTRICAL INSTALLATIONS UNDERTAKEN:—

The Crompton Engineering Co.,
(Madras) Ltd.,
Second Line Beach, Madras 1.
Sethuram Thyagarajan & Co.,
Angappa Naicken Street, Madras 1.
Viswanathan & Co.,
103-A, Godown Street, Madras 1.

CONSULTANT ENGINEERS

I.S. Rao, Bsc (Eng) A.M.I.E.,
25-A, Thambu Chetty Street, Madras 1.

KASSELS, ANAND & LUCKY FANS

Murugappa Agencies Ltd.,
106, Armenian Street, Madras 1.

PHOENIX FANS

R.M.S. & Co., Ltd.,
16, Broadway, Madras 1.

EMCO FANS

M/s. Crompton Engineering Co.,
(Madras) Ltd.,
Second Line Beach, Madras 1.

M. E. M. STARTERS AND SWITCHES

Seeyansee & Co.,
55, Anderson Street, Madras 1.
Madras Electricals Ltd.,
55/57, Rattan Bazaar, Madras 1.
M. T. Rajen & Co.,
195, N. S. C. Bose Road, Madras 1.
R. M. S. & CO., LTD.
16, Broadway, Madras 1.

FERRANTI METERS & CALLENDER CABLES ETC.

B. I. C. C. Ltd.,
37, Second Line Beach, Madras 1.

GANZ METERS, BILL SWITCHES & P.V.C. CABLES, ETC.

Messrs. I.A.E.C. Ltd.,
Dinroze Estate,
2-17 G, Mount Road, Madras 2.

C.G.S. METERS

Havells' Electrical (Sales) Corporation
43, Lingha Chetty Street, G.T., Madras 1.

JAPANESE CABLES & ACCESSORIES

Garlick & Co., Ltd.,
26, Errabalu Chetty Street, Madras 1.

PARAMITE CABLES

The Indian Cable Co., Ltd.,
National Bank of India Buildings,
North Beach Road, Madras 1.

CABLES, CROMPTON MOTORS, CEILING & TABLE FANS, OIL ENGINES

M/s. Elite Traders,
16, Broadway, Madras 1.

ZENITH & FERGUSON RADIOS

Universal Agencies,
3-18, Mount Road, Madras 2.

RADIOS & REFRIGERATORS ETC.

M/s. Mohamed Ebrahim & Co.,
Victory House,
Mount Road, Madras 2.

ELECTRIC MOTORS & PUMPS ETC.

Madras Engineering Agencies Ltd,
11, Lingha Chetty Street, Madras 1.
The Nellikuppam Industries Ltd.,
337, Thambu Chetty Street, Madras 1.
T. R. R. Swami & Co., Ltd.,
337, Thambu Chetty Street, Madras 1.

AUTOMATIC PUMPS ETC.

General Machine Tools Corp.,
158, Broadway, Madras 1.

SRI PUMPS

Nellikuppam Industries Ltd.,
337, Thambu Chetty Street, Madras 1.

SHIVAJI PUMPS

The British & Eastern Engineering Co.,
16, General Patters Road, Madras 2.

JAYEMS PUMPS

Jayems Engineering Co.,
Lingha Chetty Street, Madras 1.

SIGMA PUMPS

William Jacks & Co., Ltd.,
First Line Beach, Madras 1.

CHANDRA PUMPS

Sugar Cane Crushers etc.
Messrs. The Chandra Foundries Ltd.,
55, Basin Brigde Road, Washermanpet,
Madras.

"O.K." PUMPS & FLOUR MILLS

M/s. East Asiatic Co., (India), Ltd.,
First Line Beach, Madras 1.

KHOSLA PUMPS, (Flour Mills)

Auto-Garage and Workshop Machines—
K. G. Khosla & Co.
1, Original Road, NEW DELHI.
Resident Representative:—Mr. D. SESHADRI,
15, North Mada St.,
Mylapore, Madras 4.

P. S. G. PUMPS

Gordon Woodroffe & Co., (Madras) Ltd.,
North Beach Road, Madras 1.

D. P. F. PUMPS, GOULDS PUMP

Higgs Motor, Alternator, Generator, etc.
M/s. Batliboi & Co.,
3/153, Broadway, Madras 1.
Fairbanks Morse automatic deepwell and shallow well pumps.
I. A. E. C. (Madras) Ltd., Dinroze Estate,
2/17-G, Mount Road, Madras 2.

PETTER OIL ENGINES

Darry & Co., Ltd.,
Dare House, Madras 1.
Modern Electric Co.,
Lingha Chetty Street, Madras 1.
Shanker Trading Co.,
Lingha Chetty Street, Madras 1.
National Engineering Co.,
N.S.C. Bose Road, Madras 1.

LORENZ, SKODA, YANMAR & M.W.M. (German Make) ENGINES & WOLF TOOLS, BLOWERS, DRILLS, Etc

M/s. Rallis India, Ltd.,
320, Lingha Chetty Street, Madras 1.

NATIONAL OIL ENGINES

Best & Co., Ltd.,
First Line Beach, Madras 1.

CROSSLEY OIL ENGINES, SPIRAX PRODUCTS, HOWDEN JOHNSON BOILERS Etc.

M/s. Binny & Co., (Madras) Ltd.,
Armenian Street, Madras 1.

DEVILLE OIL ENGINES.

M/s. Indo-Lanka Traders,
38, Lingha Chetty Street, Madras 1.

OIL ENGINES (General)

Asiatic Agencies,
198, Govindappa Naick Street, Madras 1.

COOPER OIL ENGINES

Marshall Sons & Co., (India) Ltd.,
Second Line Beach, Madras 1.

VENDEUVRE, ASAA OIL ENGINES S.M.C. Flour Mills

M/s. Standard Machinery Co., Ltd.,
33, Lingha Chetty Street, Madras 1.

OIL ENGINES (General)

Bharat Overseas Trading Corporation,
30, Thambu Chetty Street, Madras 1.

OIL ENGINES & DOMESTIC AUTOMATIC PUMPS ETC.

G. Janshi & Co.,
163, Mount Road, Madras 2.

'BOSCH' FUEL INJECTION EQUIPMENT
for Industrial and Automotive Diesels
The Indian Engineering & Trading Co.,
31, Wallers Road, Madras 2.

HARDWARE
B. Chandrakant & Co.,
2/156, Broadway, Madras 1.

DIESEL & ELECTRIC DRIVEN PUMPSETS
Rustone Ltd., England.
(Hungarian Make).
Modi & Modi.
11, Lingha Chetty Street, Madras 1.

FIBRE SHEETS & RODS & RUBBER BELTING
(Holland make)
Industrial Stores Trading Co.,
11, McLean Street, Madras 1

HARDWARE & TOOLS
Pachmerhiwala & Co.,
312, Thambu Chetty Street, Madras 1

RICE MILL SOTRES
Popular Mill Stores,
20-B, Errabalu Chetty St., Madras 1

AUTO-GARAGE & WORKSHOP MACHINES.
Bharat Motors,
Khaleel Mansions, Madras 2

REPAIRS-ELECTRICAL & MECHANICAL
M/s. Greens Electricals,
General Patters' Road, Madras 2
The United Electrical Works,
1/11, Umpherson Street, Madras 1.
The Nellikuppam Industries Ltd.,
Kudithangi Village,
Nellikuppam Post (S.A.Dt.)
(Rewindings of Electric Motors
A Speciality.)

FOUNDRY WORKS & ENGINEERS
Beehive Foundry Engineering Works,
95, Broadway, Madras.

TRACTORS

OLIVER
M/s. William Jacks Ltd.,
1st Line Beach, Madras 1

FARMALL McCORMICK DEERING
(International Harvester & Co.,)
M/s. Volkart Brothers,
115-116 Armenian Street, Madras 1

FERGUSON
M/s. Kamani Engineering Corporation,
Ltd.
2, Jones Street, Madras 1

JOHN DEERE, DAVID BROWN
M/s. Larsen & Toubro Ltd.,
120, Armenian Street, Madras 1

MASSEY HARRIS
M/s. Rallis India, Ltd.,
Linghi Chetty Street, Madras 1

STEYR
M/s. Jayems Engineering Co.,
Linghi Chetty Street, Madras 1

TURNER
M/s. East Asiatic Co., (India) Ltd.,
1st Line Beach, Madras 1

HANOMAG
M/s. South India Corp., (Madras), Ltd.,
Tractor Department,
Peters Road, Royapettah, Madras.

FIELD MARSHALL
Marshall Sons & Coy., (India) Ltd.,
2nd Line Beach, Madras 1

LANZ
M/s. Hindustan Electric Coy., Ltd.,
Ballard Estate, Bombay.
Branch :—52-B, Second Line Beach,
Madras 1.

MOFUSSIL MARKETS
MOTORS, PUMPSETS Etc.
M/s. R. M. H. Corporation,
No. 6, West Boulevard Road,
Teppakulam Post, Tiruchirapalli.
The Nellikuppam Industries Ltd.,
53, Kutcherry Road,
Villupuram.
The Nellikuppam Industries Ltd.,
Kudithangi Village,
Nellikuppam Post (S.A.Dt.)

Trade offers and enquires :

TO LET

Contract open :

THE POWER

296, Lingha Chetty St.,
Madras - 1.

Dated 29-11-1951.

To M/s.....

Dear Sirs,

Will you kindly turn over to find a specimen page of the REPUBLIC DAY NUMBER of THE POWER, coming out in a very interesting, illuminating and illustrative manner early January, '52, printed on Art paper with colour picture studies, under different sections in different settings, of electric motors, tractors, centrifugal pumps, domestic automatic pumpsets, oil engines, tools, fans, installations etc., besides topics of general interest like Science serves mankind, Rivers In the service of Man, The world in progress etc., and also containing special and technical articles by eminent engineers and other interesting Tit-Bits, Caricatures, etc.

It is very apt and appropriate that your esteemed firm finds a place in the concerned section of motors, tractors, centrifugal pumps, domestic automatic pumpsets, oil engines, tools, fans, installations etc., for which we request for your valuable patronage by way of sending your separate order of your separate Advertisement with contents for separate full page, along with your cheque for the same within 10th December.

Thanking you,

Yours faithfully,

K. THYAGARAJAN, (Advt. Manager)

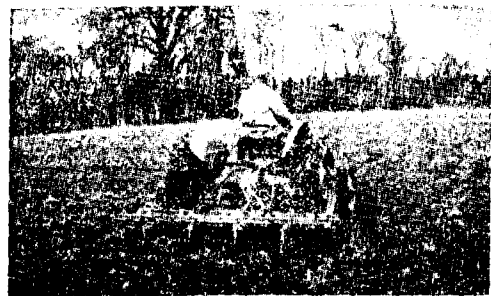
Advertisement Rates for Republic Day Number

Full page inner	...	Rs. 100
Half ,,	...	Rs. 60
Quarter ,,	...	Rs. 40
Colour Advertisement		Extra Rates.



THE OLD

&



THE NEW

PLOUGH FOR PLENTY

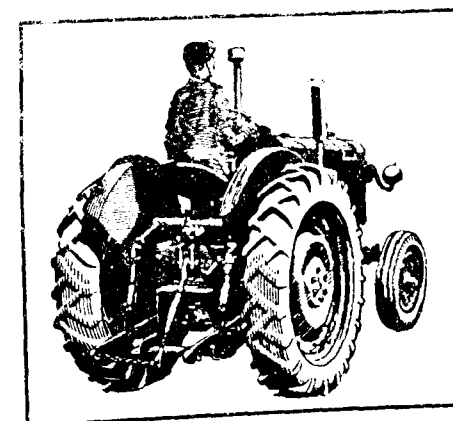
Thought for food is food for thought to-day in India. The country has to produce 4 or 5 million tons of food more than now apart from producing more cotton, jute and sugar.

Enter Tractors - for more acreage, better tillage and better yield, better sowing and greater crops and better reaping with richer harvests.

The days of "crooked stick" called the plough, though cheap to buy or easy to make, will no longer fit in the world picture. The great era of mechanization - tractorization - has already set in.

The Indian peasant is a believer in tradition; he still likes to use methods and implements favoured by his forefathers. Why change? And yet he can be receptive; when after demonstration and explanation and due reflection, he satisfies himself that modern methods and modern equipment will bring improvement in the work and the field, he must give these a fair deal.

*"They are the privileged ones - the men
who keep,
Their Tractors and Trailers upon their
farm,
For God is over every field to teach,
Those with best labour thrive in every
farm" -*



"Strong and Sturdy. I work on all land,
To produce the food and to protect the good.
— A Tractor's Tale.



Address to	
	For
Company's Name	Tractor's Name

THE NELLIKUPPAM INDUSTRIES LTD.,

ELECT. & MECH. ENGINEERS & CONTRACTORS

Place of Business :

337, Thambu Chetty Street,
G. T., MADRAS-1

Branch :

53, Kutcheri Road,
VILLUPURAM

Registered Office :

3, Bishop Wallers Avenue East,
Mylapore, MADRAS-4

Works :

Kudithangi,
NELLIKUPPAM

Distributors : 'SRI' PUMPS

VISWANATHAN & CO.,

ELECTRICAL ENGINEERS,

103-A, GODOWN STREET, MADRAS-1

P. O. BOX No. 1642.

Telegrams

"VISCOM"

UNDERTAKES

Telephone :

4 0 4 4.

HOUSE WIRING, ILLUMINATION
THEATRE & STUDIO LIGHTING
STOCKISTS OF ALL ELECTRICAL GOODS.

T. R. R. Swami & Co., Ltd.

ELECTRICAL ENGINEERS

Place of Business :

337, Thambu Chetty Street,
G. T., MADRAS-1.

Branch: WORKSHOP BUILDINGS,

THE NELLIKUPPAM INDUSTRIES
LTD.,

Registered Office :

3, Bishop Wallers Avenue East,
Mylapore, MADRAS-4.

Post Box No. 1

Kudithangi, NELLIKUPPAM (S. A. Dt.)

Distributors : **B. T. H. PRODUCTS for S. A. DISTRICT**

TYPICALLY TAMILIAN

IN LANGUAGE, FEELING, SENTIMENT,
SYMPATHIES AND GENERAL OUTLOOK.

P O N N I FORTNIGHTLY

(The favourite Tamil Family Magazine)

THE MAGAZINE THAT TOUCHES THE HEART OF THE TAMIL RACE
AT HOME AND ABROAD-AN EXCELLENT MEDIUM OF ADVERTISEMENT

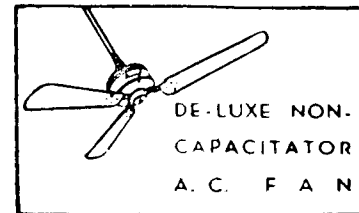
For particulars apply to :

PONNI LIMITED, Tondiarpet, MADRAS-21

INVEST TODAY IN AN



Anand



the lifetime fan is precision built from all electrical sheet stampings and is guaranteed to give you two-way economy.

It keeps down running expenses because of its lower watt consumption, while it costs almost nothing on maintenance or servicing. For top level trouble-free performance, specify ANAND.

110 volt models also made to order

Kassels
patented fans

KX-32

Selling arrangements all over India.

MATCHWEL ELECTRICALS (INDIA) LTD.

Managing Agents : KASSELS LTD.

SUBZI MANDI, DELHI, Phone : 6472

Sole Selling Agents for Madras Presidency

M/s. Murugappa Agencies Ltd.,

106, ARMENIAN STREET,

Post Box No. 1356 MADRAS-1

Phone : 2941

Gram : "EMAGENCY'S"

Sole Selling Agents for Hyderabad State :

M/s. Deccan Engineering & Refrigeration Co.,

133, KINGSWAY,

SECUNDERABAD-Dn.,

Phone : 7243

Grams : "DECENGRECO"