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Vol. VI

OCTOBER 1958

No. 3

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PRINTECH

VOL. VI. OCTOBER 1958 No. 3

7 KONDI CHETTY ST. MADRAS-1

Grams: "PRINTECH"

Present Scarcity of Paper

**Memorandum Submitted to Shri Lal Bahadur Sastri,
Minister, Commerce & Industry, Govt. of India, New Delhi**

by

S. N. GUHA RAY

Director-in-charge, Sree Saraswaty Press Ltd., Calcutta

THE Ministry of Commerce and Industry had recently invited the representatives of the paper mills and discussed with them about the present scarcity of paper. A brief handout from the Ministry states that the mill owners assured the Government that they would keep a check on their distributors, presumably to stabilise the price. The presumption is that it is the distributors alone who are responsible for the present scarcity and high price. It is not known what other matters transpired in the Conference: nor the Government has taken the public into confidence about the various interests who attended the Conference. Evidently the largest consuming interest, the All India Federation of Master Printers was not invited to send its representatives to the Conference. But in spite of all these deficiencies it is a hopeful sign that the authorities have become conscious about the paper situation.

It is high time that an analysis should be made to find out the causes of the present scarcity and the consequent rise in the prices of various kinds of paper and board. It is

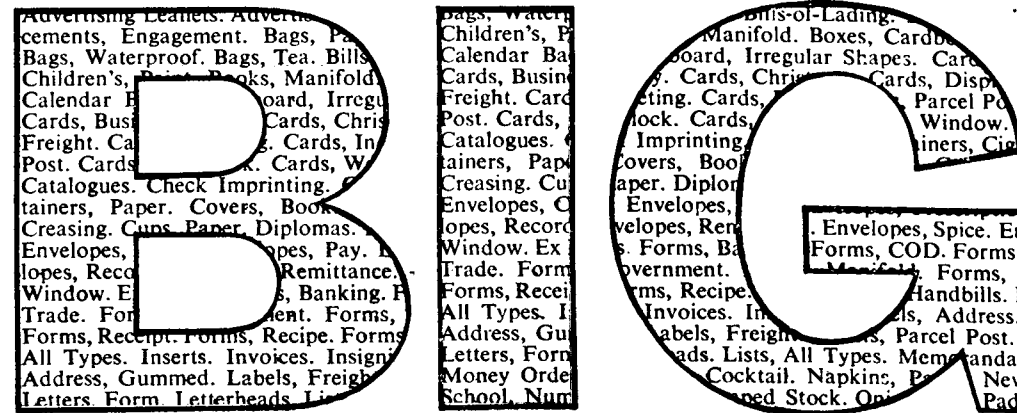
known to all that due to the failure of supply of paper in proper time this year, the entire School Text book Season suffered in all the States starting from Assam to Kerala. It is also well known that the next College-book Season will also suffer because of the scarcity of paper. It is not only the text books which have suffered but our cultural and industrial activities have received the greatest set back because of the acute shortage and consequent rise in the price of paper. Are the distributors the only persons who are responsible for this?

The cause of this scarcity is not very hard to find. A simple cause for this scarcity is the increased demand for paper and board after we attained freedom. There has been rapid expansion of mass literacy on the one hand while on the other the quick industrialisation of the country is also responsible for the increased consumption of paper and board. It is also true that the Indian Paper Mills have failed to reach the target of production of the First Five Year Plan in spite of their having received unstinted support from every quarter.

OCTOBER 1958

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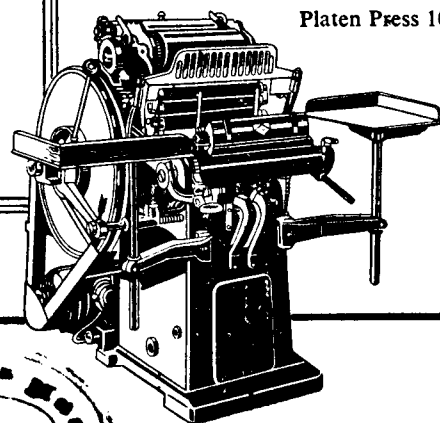
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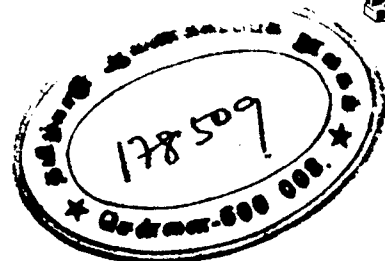
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They have been allowed to increase the price of their products any time they have desired, the Government having kept their eyes shut on the recommendations of the Tariff Commission. There has been no dearth of orders. Financial help in the form of Government loans and import restrictions together with enhancement of Customs Duty and imposition of Excise Duty on imported paper and board have always been at the command of the Indian Paper Mills. Quality of products has never been a bugbear with our paper mills. And still in spite of all these, the latter have failed the country, failed the nation.

There are various causes which are operating behind this scarcity, which some cynic may dub as artificial scarcity created for the benefit of some self-seeking vested interests. I am not a cynic and naturally do not subscribe to such opinion. May be, there is an iota of truth in this cynicism but that should not bias our views. Of course, the scarcity of white printing paper during the last School-book Season cannot be explained in any way. The Mills know before hand when the printers require paper for printing textbooks and every year they are prepared to meet them. There is yet no explanation why our Mills failed this year during this peak period of demand. They cannot plead ignorance nor can they point out any *force majeure* cause, like labour unrest or such other matters, for their failure in supplying the regular demand. I do not know whether this point was raised by the Government at the Conference and what the reply of the Mills was. The paper consuming public will be very glad to learn from the Government the reply of the Mills on this point. Many would also like to know why the Mills have not arranged for regular supply during the current College-book Season.

One of the stock replies of some of the Mills to the complaint of irregular supply of paper is that the Government—Central and States—never stagger their demands in a regular way. The complaint is that for the first three or more months of the financial year, i.e. from April to June, almost no Government Depart-

ment places any indent on the Mills and after that each Department vies with one another to rush its orders. For a brief period this rush is followed by a lull and then just before the closing of the financial year, a plethora of orders is rushed to the Mills. This spasmodic conduct of the Government Directorates naturally upsets all production programmes of the Mills and consequently causes great hardship to the public as also to the Government. Several years ago, I had raised this point before the Controller of Printing, Government of India and was assured that the Government would always stagger their orders throughout the year in such a balanced way that no extra strain is put on the production programme of the Mills. I do not know what the reply of the Government is to this point. Most of the Government Printing Contractors know how they are starved for work for the first five to six months from the commencement of the financial year and how at the eleventh hour orders are rushed on.

As the Government is the largest single purchasing unit of paper in the country, the Ministry of Commerce & Industry must take some steps, effective steps, with all the Government Directorates to stagger their demands on the Mills and the Printers in such a way that everyone can maintain his production programme smoothly. Unless the Ministries of Finance and Commerce & Industry can make their influence felt in this respect on the Government Directorate—Central and State—consuming large quantities of paper, there will exist scarcity of paper with consequent flourishing Black Market.

Another cause of scarcity of paper and the rise in its price will be found in the drastic restriction in the import of foreign paper and board. These items had always acted as a check on the scarcity of paper and increase in the price of the indigenous varieties and also reacted favourably on the Indian quality. Now with the forced retirement of the foreign varieties, the Indian Mills are called to meet this shortage, which they are unable to do. As a result of the import restrictions, the Indian

12 பாயின்ட் பவானி ரோமன்

ஒருவன் தன்னைத்தான் நேசிப்பானாகில், அவன் தன்னையே கவனமாய்க் காத்துவரவேண்டும். இரவில் மூன்று யாமங்களில் ஒன்றிலாயினும் ஞானி விழிப்புடன் கவனமாயிருப்பானாக.

ஒவ்வொரு மனிதனும் முதலில் தான் நன்னெறியில் நிலை பெறவேண்டும்; பிறகுதான் மற்றவர்களுக்குப் போதிக்கவேண்டும். இத்தகைய ஞானி கிலேசமடைவதில்லை.

மற்றவர்களுக்குப் போதிக்கிறபடி ஒருவன் தன்னைப் பண்படுத்திக் கொள்ளட்டும். தன்னை நன்கு அடக்கியாண்ட பிறகு, பிறரை அடக்கியான முடியும். ஏனெனில் தன்னை அடக்கிக் கொள்வதே கடினமான காரியம்.

ஒருவன் தானே தனக்குத் தலைவன். வேறு யார் தலைவனாயிருக்க முடியும்? தன்னை நன்கு அடக்கிவைத்துக் கொண்டால் ஒருவன் பெறுதற்கரிய தலைவனைப் பெற்றவனாவான்.

மூடனுடைய பாவம் அவனிடமே பிறந்தது, அவனே படைத்தது, வயிரம் மற்ற மணிகளை அறுப்பதுபோல், அவன் செய்த பாவமே அவனை அழித்துவிடும்.

மாலுவக் கொடி. கடம்ப மரத்தைச் சுற்றிப் படர்ந்து மரத்தையே அழுக்கி விடுவதுபோல், ஒருவனுடைய தீவினையே அவனை அழுக்கிவிடுகிறது; பகைவர் செய்யவிரும்பும் தீமையை அவன் தானாகவே செய்துகொள்கிறான்.

ஷே பவானி ரோமன் எழுத்துக்கள்
18, 14, 12, 11, 10, 9 பாயிண்டுகளில் கிடைக்கும்

தயாரிப்போர் :

நார்ட்டன் அண்டு கம்பெனி

ஸ்பார்ட்டன் டைப் பெளண்டரி

சூளை, சென்னை-7

paper distributors are faced with a serious predicament. They are unable to handle both foreign and Indian varieties. The Mills, who give a trade discount to their recognised distributors also allow them to charge a commission of 7½% on their customers. So long, the distributors had not charged this commission but now they have started charging them to meet their surplus establishment charges. This is one of the causes of the rise in price of paper and board.

The irregularity in the supply from the Mills is one of the most important reasons for scarcity. The distributors place their indents monthly with the Mills but the latter never inform the delivery date. Sometimes deliveries are made within a fortnight but instances may be cited in galore when the Mills have not cared to reply as to delivery date even after six months. Irregular supply of paper naturally upsets the market and leads to unsocial activity.

Another cause of scarcity and black market will be found in the policy of some of the Mills in linking of some qualities. They just force the consumer to buy a certain percentage of slow-selling quality of goods if he places orders for a rapid-selling item. As a result the distributor is forced to charge a higher rate for the popular item to cover his loss for selling the slow-selling goods, which most often he has to sell at a price lower than the control rate.

It is really surprising that while the entire nation is bent upon increasing production, the two most important mills of West Bengal have reduced the quota of their distributors by 40%. This is also an important cause for upsetting the entire paper market.

Shri Morarji Desai, as Commerce Minister, had issued an appeal to all 'to hold the price line'. It would be interesting to know how his appeal has acted in the Paper market. It has become a regular habit of some of the Mills to change the name of a particular brand and charge more. The Development Wing must be aware of this trick. What has it done to counteract this?

Unless the Government takes a firm decision

to stop all black-marketing, this scarcity of paper will continue to grow and will ultimately create a serious situation. The alarming growth of a certain type of businessmen must be checked at once. The days of complacency are over but has the Development Wing the guts to tackle the problem? ★

CONSTANT-HEIGHT MOULD

With the present-day emphasis on new techniques and greater productivity, the question of type height-to-paper has become increasingly important. Amidst all the precision aids to makeready which have recently appeared, none can have been of such significance as the 'Monotype' Constant-Height Mould. For the first time, a printer can rest assure that all his type, including the vital correction founts, will be uniform in height to a thousandth of an inch.

When the first information about this new mould was issued just over a year ago, production problems limited supplies to new installations, but The Monotype Corporation is pleased to announce that all orders can now be met with the minimum of delay. Customers already using the new mould report that it is completely fulfilling their expectations in helping to reduce makeready problems.

SILK SCREEN PROCESS

Print Processes now offer 100 Screen Halftones

Print Processes Ltd., of Print House, Ashwin Street, London, E.8, the silk screen specialists, are now offering half-tone silk screen printing of 100 screen.

A new method of preparing photographic stencils enables a far greater consistency of reproduction to be achieved and accuracy which makes differentiation between litho and letterpress extremely difficult.

The company's new method utilises a silk screen and not a metal mesh and long series of tests and research have gone into this latest development.

The use of 100 screen by the new method means an increased standard of colour impact, particularly valuable for point of sale material seen at close quarters by the public.

New Plastic Printing Plates Being Tested By U. S. News Paper

SCIENTISTS of the E. I. du Pont de Nemours Company have developed a revolutionary type of printing plate made of plastic, not metal, that can be used on the kinds of presses that print newspapers and magazines, as well as those used in commercial printing. It may result in cheaper and faster newspaper printing.

The du Pont plate is now being tested in printing and newspaper plants in various parts of the United States. Large-scale production is not planned until late in 1960.

The advantages claimed by du Pont scientists for the new plate are these: it will drastically reduce the time needed to prepare most material for printing; it will make the printed word easier to read; it will eliminate one or more steps in various types of printing; and it will be longer-wearing than a metal plate.

Metal type is not used in preparing the du Pont plate. Instead, a photographic process transfers an impression from film to the plastic surface. In a matter of minutes, the plate is ready for the presses.

At first, the plastic plate is expected to cost slightly more than a metal one. Widespread acceptance by the industry, however, probably would bring down the cost, its developers say.

Dr. W. H. Vinton, of du Pont's photo products department, predicts that the first general use of plastic plates probably will be in preparing full-page newspaper advertisements for



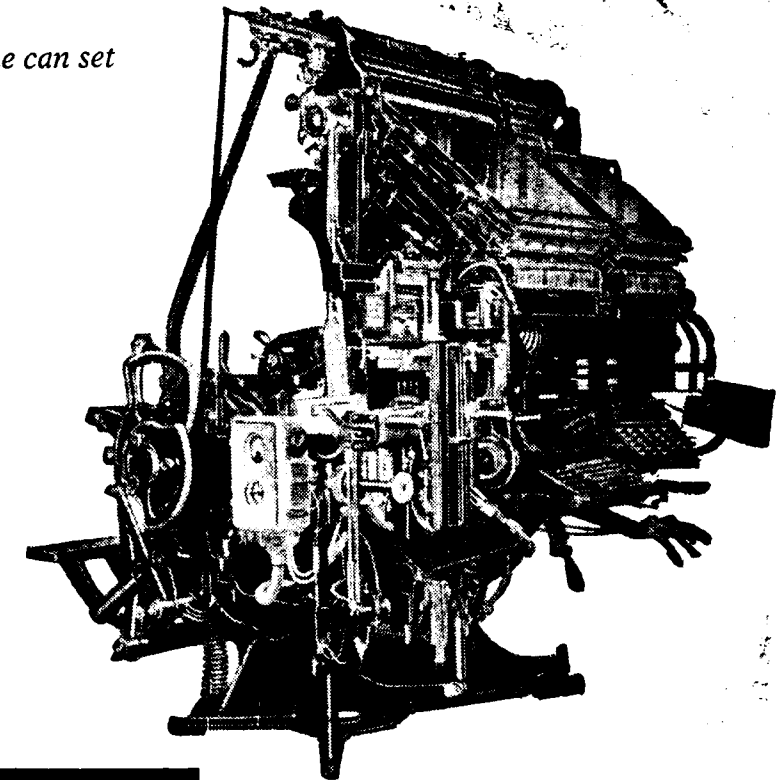
PHOTOTYPE MACHINE: This shows a phototype machine at the printing plant of the New York Daily News. The operator of the machine is setting type on photographic film. This film is then used to transfer an impression on a plastic printing plate which is being tested by this newspaper and several other U. S. newspapers. It is believed this new method will result in faster and cheaper newspaper printing.

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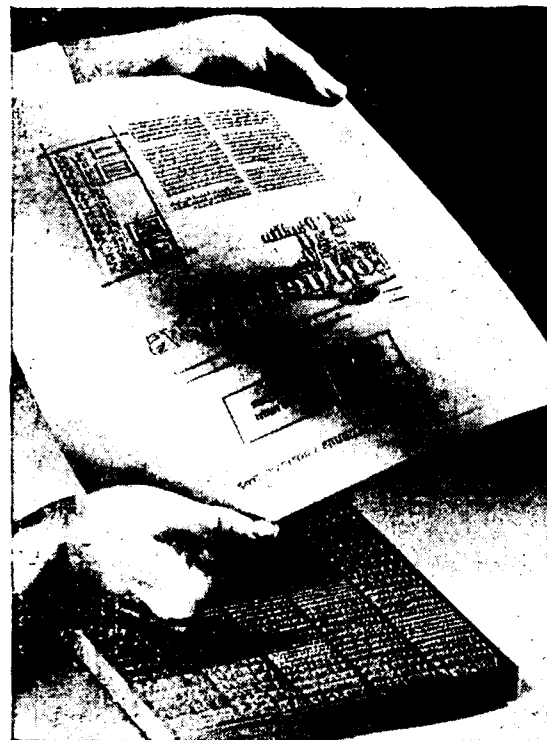
11-13 HORNIMAN CIRCLE, BOMBAY 1 · 10-29 MOUNT ROAD, MADRAS 2

OCTOBER 1958

the presses. He says that preliminary testing indicates that the plate will perform adequately under the rigorous conditions of direct newspaper printing.

The advantages for magazine and newspaper readers, according to Dr. Vinton, will be clearer, easier-reading type, wider use of pictures and other illustrations and greater speed in getting the latest news to readers.

Dr. Vinton also foresees the possibility of new newspapers being established in communities where there are none, or only one, and



PLASTIC PRINTING PLATES: These photosensitive plastic plates can be exposed and processed within 15 minutes, after a high-contrast photographic negative of the copy (line, halftone or combinations thereof) has been prepared. Shown above are flexible and block-mounted photorelief plastic plates for rotary and flatbed press use, respectively. These plates are expected to be in general commercial availability about two years from now.

in weekly newspapers' being converted to daily publications. This could come about, he says, through lowered costs of new, light-weight

equipment—such as presses—and a reduction in the labor force required.

The use of photography to reproduce the written word is not a new idea. It was first tried more than 100 years ago. Little was done to advance the process, however, until the end of World War II. Since then, a score of companies in this country and in Europe have produced various kinds of machines to prepare copy on film, rather than in metal type.

Phototype is produced on machines operated much the same way as a typewriter. The films obtained are said by some printing industry leaders to provide copy superior in quality to that resulting from the use of metal type.

Three factors have held back the use of photography in printing until recently. One was its limited versatility when special type faces were required. Another was its lack of flexibility when many corrections were indicated. These obstacles are being overcome.

The most serious drawback in some types of printing with film, however, has been—and remains—cost. Film is not reusable as are metals. Sponsors of the phototypesetting method are hopeful that cheaper ways can be found to turn out the kind of film needed.

Consequently, there are some industry leaders who expect that the combination of phototype and du Pont's plastic plate may ultimately result in a major change in printing production practices. ★

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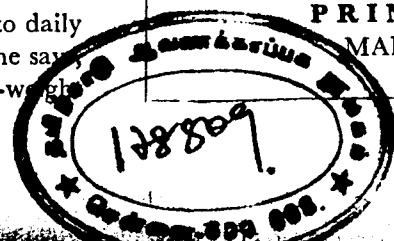
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—ABSTRACTS

New Rotating Book Press

A NEW rotating book press which allows a continuous flow production has been developed in Germany. Details of the machine, which has an average output of 1,000 to 2,000 books per hour, are given in the July issue of *Printing Abstracts*, published by the Printing, Packaging & Allied Trades Research Association (Abstract 2257).

Other items worthy of note in the machinery section include a German-made electronic sheet separator which ensures that only one sheet reaches the lay (Abstract 2200); a Swiss-made gatherer-stitcher for saddle stitched publications which has a speed of up to 12,000 copies per hour (Abstract 2231), and a routing machine for metal, plastics, rubber and wood (Abstract 2236).

Details are also given about the Elgroma electronic engraving machine which provides 13 screen equivalents from 50 to 200 lines per inch (Abstract 2224), and the Varic Klischograph which can produce enlargements up to 4x and reductions of 3x (Abstract 2241).

In a section devoted to printing machines there is news of a new web-fed two-colour flexographic press for polyethylene printing equipped with unit driers, a static eliminator and a rotating mirror web-scanning device (Abstract 2144); and an offset press which will handle maximum sheet sizes of 23½" x 31½" at speeds of up to 8,000 i.p.h.

Of particular interest in the lithography section is a two-layer process for metal etching where the metal is coated first with an acid-resistant lacquer and then with a thin layer of

dichromated gum. When the developer has penetrated the lacquer image areas, the gum coating is washed off and the acid etching of the metal carried out (Abstract 2328). Notes are also given about a process in which a xerographic plate can be used as a lithographic printing surface (Abstract 2336); causes and cures of scum (Abstract 2320) and factors governing the life of offset plates (Abstract 2324). In this last mentioned abstract it is recorded that the original article makes particular reference to incorrect adjustment of the pressure, operation of the cylinder and of the inking and dampening rollers. Other factors mentioned are too spare inking, too much paper dust, too free damping, too short an ink or unsuitable additions to the ink and additions to the dampening water. The advantages of the Mikral plate in this connection are indicated.

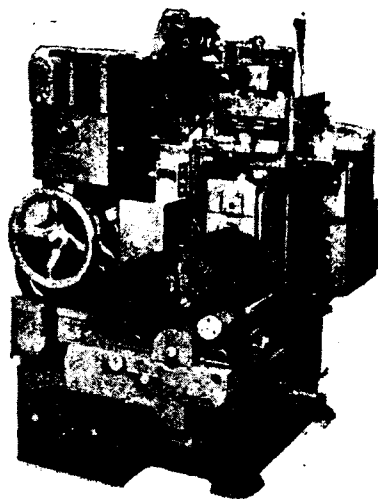
Information is also given about proofing and measurement of etching depths in gravure (Abstract 2360); on experimental metal fibre "paper" produced on a Fourdrinier machine (Abstract 2068) and curved nylon plates (Abstract 2384).

Latest Advances in Packaging

Over 400 items dealing with latest advances in packaging techniques, processes and materials are given in the July issue of *Packaging Abstracts* published by the Printing, Packaging & Allied Trades Research Association. They range from a new heat-sealing coating for aluminium foil (Abstract 2167); a compres-

(Continued on page 16)

Introducing the 'MONOPHOTO'



FILMSETTER

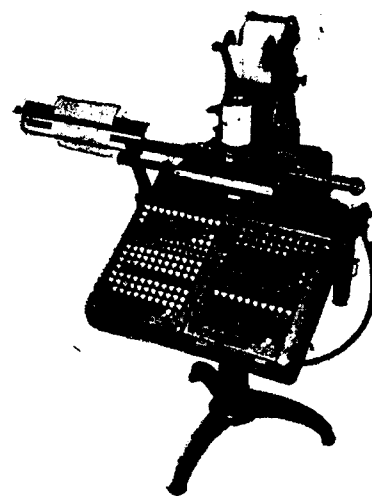
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on photographic film.

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NEWS

PRINTECH Diary Page:

News of people, production and events in the Printing, Paper and Publishing World

RUSSIANS ARE MAKING S.S. ELECTRONIC ENGRAVERS

Russian progress in the field of electronic engraving is reported in the German periodical 'Graphische Woche'. This journal states that according to the Soviet publication 'Technika Molodjoshi', a number of experimental electronic plate engraving machines were produced by the Russian Institute for the Printing Industry.

The engraver, resembling the Swiss-made Elgrama machine, has so far only been produced in the 28 lines per cm. form. Enlargements or reductions cannot be made.

Another German periodical, 'Druckspiegel', gives an account of printing research in the Soviet Union. The journal states that there are three research institutes in Russia, two in Moscow and one in Lvov. One of the Moscow institute is solely concerned with machine construction. The All-Union Research Institute for Graphic Arts Technology was founded in Moscow 26 years ago, with 180 employees. In another part of Moscow is an experimental printing works employing 150 workers. The Research Institute maintains branches in various large printing works throughout the Soviet Union, which provide a liaison between research and practical application.

Describing the work of the Institute the article notes that in the photographic laboratory, a team of 18 is engaged in the investigation of masking techniques, prescreening of films and the provision of contrasty film-material which is said to be equivalent in quality to Kodalith. The results on the use of the contact screen have just been published by the only Russian trade magazine. The letterpress technical laboratory is engaged on the application of plastics to type and stereotypes, in conjunction with a foundry in Leningrad.

The work on the casting of plastic types, and the advantages of these for long runs, is of interest.

The testing of paper for web-fed rotary printing, and a process for the prevention of set-off in colour printing. Experiments are being carried out on the drying of inks by heat, electroplating techniques for all printing processes, especially bi-metallic plates for offset printing, and a screen mask (grid) has been successfully developed for colour television. New adhesives are being developed in the book binding technical laboratory. The use of electronic equipment for measuring colour density, the elimination of static electricity, and quick-drying inks for gravure and offset printing are also under investigation.

Notes are also given about an American Electronic device capable for printing 3,000 11 x 12 in. pages or 150,000 address labels an hour; a new thermo setting backing for stereo matrices said to eliminate packing out (Abstract 1440); a lithographic plate making process where the plate is presensitised by chemical action so eliminating the whirler operation, and plastic litho plates, made in East Germany, which are said to provide sharp reproduction and good printing results at a cost considerably lower than that of zinc plates.

TRADE ASK ABOUT BOTTLE PRINTER

Since its first demonstration in April at the Factory Equipment Exhibition, the SPS Rotascreen automatic bottle printing machine has brought hundreds of inquiries to Gordon & Gotch Ltd., the British distributors.

This machine, which has an output up to 2,500 impressions an hour, screen prints on cylindrical containers of all types, glass and polythene bottles, jars, pots and tins varying in diameter from 1/4 in-3 in. and in length 3 1/2 in-11 1/2 in.

Automatic centring is provided by servo-motor and the automatic feed is incorporated by star feeded. An additional hand feeding attachment allows flexible containers to be printed on the machine. This unit gives feeding, printing and delivery without inter-

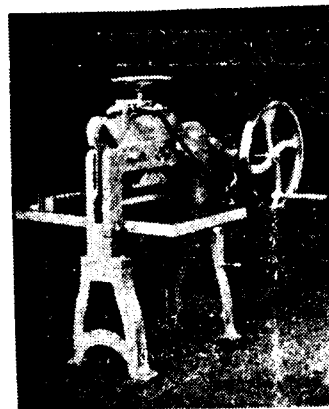
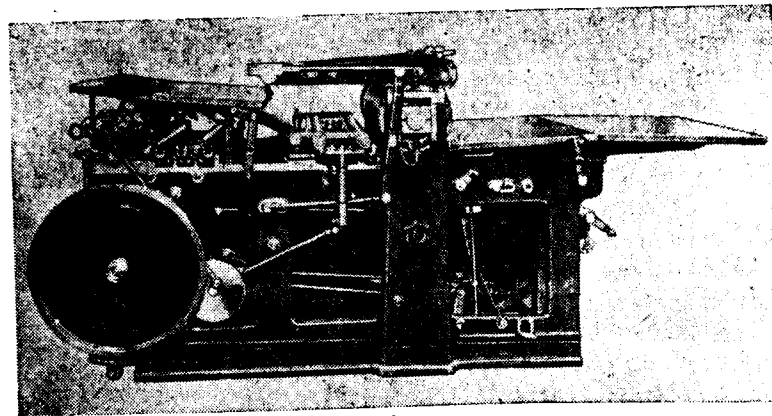
OCTOBER 1958

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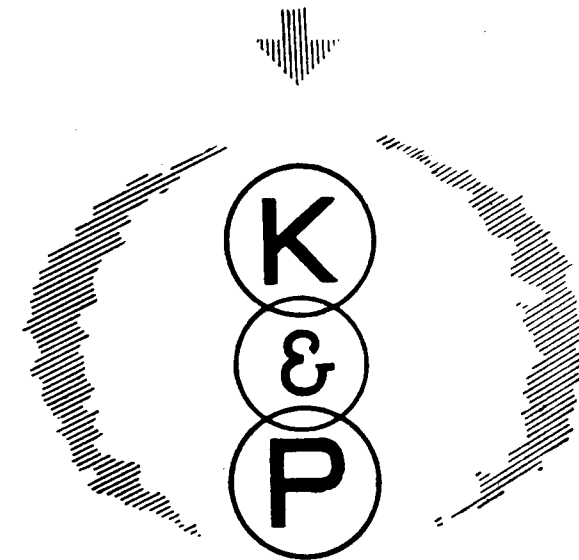
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mission. Stencils can be retouched without affecting the register.

The machine works from a 220 volt single phase motor using 90 watts. The actual machine requires a space of only 24in. x 16in. Net weight is approximately 180 lb.

Gordon & Gotch Ltd's Machinery Division, Woodbridge House, Woodbridge Street, London, E.C. 1 are the sole agents for the SPS screen printing machines and equipment manufactured by Siebdruckgerate v on Holzschuher KG, in West Germany.

Prints 14,000 an hour
BOOK PRINTING PRESS USES RUBBER AND PLASTIC PLATES

Price, Service & Co. Ltd. announce that they have accepted the British Agency for the M & F 130 letterpress rotary book-printing machine manufactured by Marx and Flehmig of Neu-Isenburg, West Germany.

This reel-fed press is especially suitable for use with rubber and plastic plates. Equipped with a sheeter and folder, it can produce between 8,000 and 14,000 printed and folded sheets per hour, depending on paper quality, says the announcement.

Modern pliable steros or plates require hardly any makeready at the machine. Thus reprints even in quite short runs become economically possible. Plate storage presents few problems.

Price Service suggest that the M & F 130 is particularly appropriate for the production of paper-back editions. Reel-widths can be up to 39 ins. and the circumference of the plate cylinder upto 47½ ins.

The unwinding unit has push-button register control of web tension. The latter can therefore be altered according to requirements.

Accurate Impression

The M & F 130 reel-fed press is built on the unit principle and can be arranged according to the printer's requirements. Impression can be set very accurately. Both side and circumferential register can be set while the machine is running.

The plate cylinders can be changed in a few minutes. Impression cylinders are of

ground steel, but rubber-clothed cylinders are available for printing from metal plates. Impression is released when the machine stops. A change of size of the plate does not involve a change of impression cylinder although, if the latter ever becomes damaged, it can be replaced in a few minutes.

The modern inking systems, which are without vibrators, include four oscillators, four distributors and four forme rollers. The supply of ink is regulated over a variable-speed gear. The printed web passes through a chamber in which it is dried by air circulation. Cooling rollers are also used.

Novel Gatherer

The slitting, sheeting and folding unit incorporates a novel kind of moving gatherer for collecting the sheets, sliding folders and a conveyor belt. Although major changes of sheet size require knife changing, knives can be removed and replaced very easily.

The machine was on display at Drupa 1958 in Dusseldorf, recently. British printers can now obtain particulars from Price, Service & Co. Ltd., Dover House, 170 Westminster Bridge Road, London, S. E. 1.

AND NOW - GLASS FIBRE MATRICES

After nearly five years of experimentation the 'Chicago Tribune' has made successful use of glass-fibre matrices. These mats, the paper has found, have numerous qualities for the production of better colour.

The fibre glass matrix is believed to be an important step in the development of dimensionally stable moulding materials. The new mat eliminates variation in shrinkage after the first plate is cast and drying takes about five minutes instead of 15 or 20 minutes as required by other mats. It is estimated that the use of glass-fibre will have unlimited possibilities for all stereo-type operations.

BOOKLET BINDING COSTS CUT
MACHINE REVERSES ORDER OF
SADDLE STITCHING

Important savings in cost of booklet binding are provided, it is claimed, by a new machine which has been recently placed on the market by the Macey Co., Cleveland,

Ohio, a subsidiary of the Harris-Intertype Corporation.

The machine is known as the 'Stitch'-A-Fold' and is available to the binding trade in this country from Smyth-Horne Ltd., 540-542 Holloway Road, London N. 7.

COMBINED OPERATION

The new machine reverse the traditional order of saddle-stitch operations. It stitches booklets in flat-sheet form and then automatically folds them at the stitch. Conventional saddle-bound booklets are first folded and then stitched in a separate operation.

By combining the two operations of stitching and folding into one, handled on a single machine, the Macey 'Stitch-A-Fold' makes savings such as 4 page signatures-eliminates separate folding: 8-12-16 page signatures-eliminates last fold and booklet covers-no separate fold needed.

ACCURATE FEED

The fold at the stitch is made so accurately by the new Macey machine that no finish-trimming is necessary on booklets up to about 20 pages. Maximum capacity is about 64-page booklets of average-thickness stock, according to a recent report on the machine.

The 'Stitch-A-Fold' can be fed manually, or can be connected to the Macey Collator for automatic feeding of signatures or flat sheets. One operator can handle both collator and 'Stitch-A-Fold'.

Operating either from the collator or by manual feed, the 'Stitch-A-Fold' can produce more than 3,000-64-page booklets per hour.

Binding trade firms can obtain further details on the general performance of the Macey 'Stitch-A-Fold' machine from Smith-Horn Ltd. The machine is said to be highly suitable for practically any type of ordinary booklet or catalogue which do not exceed the maximum capacity of 64 pages of average thickness.

(Continued from page 9)

sed gas propellant aerosol for liquid coffee and chocolate (Abstract 2392) to a new system of package unitisation (Abstract 2547) and a new type of shock recorder produced by the impact-O-Graph Corporation of America (Abstract 2282).

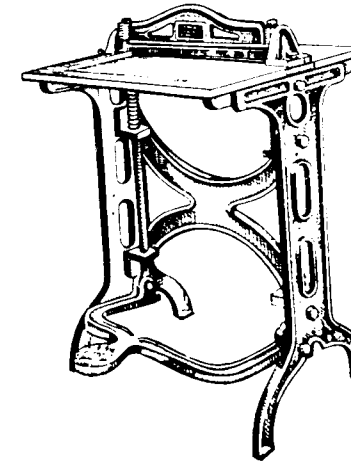
Among the 100 abstracts dealing with developments in packaging machinery, details are given about new methods used to apply adhesive on foil overwraps (Abstract 2485); a Swiss machine which seals lids on to thin-walled polystyrene cups at the rate of 600 per hour (Abstract 2504); a new British-made lock stitch nailing machine (Abstract 2499); a four-colour printing press for a wide range of materials including polyethylene, cellulose film, metal foil or any grade of paper (Abstract 2514), and a semi-automatic wrapping machine with an operating capacity of 750 packages per hour ranging in size from between $2 \times \frac{3}{4} \times \frac{1}{2}$ in. and $12\frac{1}{2} \times 6\frac{1}{2} \times 3\frac{1}{2}$ in (Abstract 2449).

In a section devoted to packaging of foods and beverages notes are given about a pouch for cocoa having a tearstring which enables quick and clean opening (Abstract 2393); the packaging of liquid cream in fibre drums having a polyethylene liner (Abstract 2399); packaging and preservation of sliced bread (Abstract 2417), and wire strapped wooden crates used for the overseas shipment of tractors (Abstract 2427).

Other abstracts in this issue deal with such subjects as the effect of ageing on folding box-board (Abstract 2172), plastic coated wood which excludes decay fungi (Abstract 2165); cutting industrial carton board (Abstract 2327) and a heat-seal paper which peels easily from any natural or synthetic fabric, attaches easily with a warm iron, and withstands flexing and rough handling (Abstract 2257). ★

TREADLE PERFORATOR

Size 18 inches

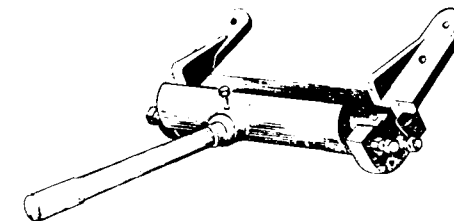


This is designed for efficient and neat working. All components are accurately machined. The machine is fitted with tempered English pins.

The tables of highly polished wood are provided with side and back guages.

CALENDAR RIMMING MACHINE

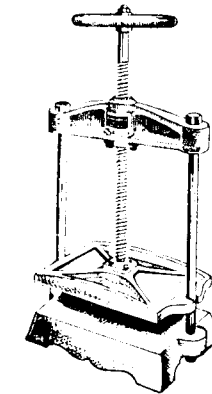
Sizes 18 and 24 inches



This machine is useful to Printers, Show Card and Calendar Makers etc. for fixing Metal Rims and Suspenders to Calendars, Maps etc. The Machine makes single and double folds.

HARD PRESS

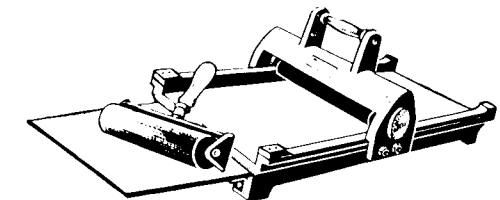
Sizes 12" x 18" and 15" x 20"



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PRINTECH

Vol. VI

SEPTEMBER 1958

No. 2

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PRINTECH

VOL. VI. SEPTEMBER 1958 No. 2

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Grams: "PRINTECH"

The First Andhra Pradesh Printer's Convention--Hyderabad

INAUGURATION BY THE CHIEF MINISTER

Mr. S. Viswanathan, General Secretary of the All-India Federation of Master Printers presided.

Rejecting the argument that education was sought to be controlled by the Government, the Chief Minister said: "We shall watch the success of the nationalisation of textbooks. and if it was not satisfactory, the Government will not hesitate to go back. We don't stand on false prestige."

He said printing work on Government account had increased ten fold with the ushering in of democracy. The electoral rolls of State, Municipalities and panchayats, brought adequate business to the private printers.

The Chief Minister said that only a small beginning was made towards nationalisation of textbooks, and it would not affect the private printers and the workers in particular. If the Government undertook printing of the books in its presses, it was inevitable that they, too, would have to engage labour.

He said nationalisation of textbooks was nothing new. Even in the past the Government selected and prescribed books.

President's appeal

Mr. S. Viswanathan, in his Presidential address, pleaded for liberalisation of import

policy by the Government of India at least with regard to spare parts needed for printing machinery. Unless this was done, even the machinery which they had in the country could not run for long, he said.

He also wanted the State and Union Governments to appoint committees consisting of their representatives, Superintendents of Government presses, and representatives of local Printers' Associations and the All-India Federation of Master Printers to standardise the rates and get their work done only on the basis of such rates; otherwise there would be no inclination for quality work.

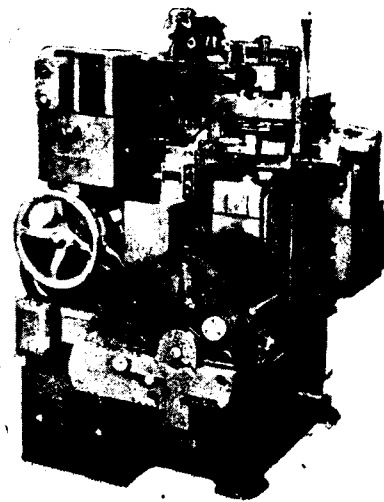
Mr. Viswanathan also pleaded for Government aid to printers by advancing loans for the purchase of new machinery as well as for replacement. Unless their machines were modernised, it would not be possible for the printer, however clever he might be to do quality work.

Referring to the problem of paper supply he said the Government should insist on the paper mills in India to standardise their production. He felt the mills were taking advantage of the present import policy and were producing material of indifferent quality knowing well that anything would sell.

SEPTEMBER 1958

Introducing the

'MONOPHOTO'



FILMSETTER

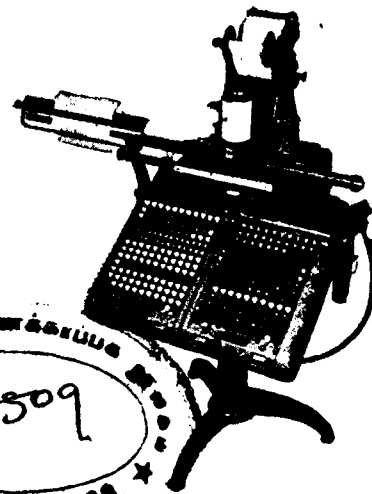
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Printing

- A Vital Human Creation

By

Sunil Kumar Banerji, M. A.

Allahabad

SELF expression is one of the most vital human instincts. Instinctively we all are impelled to express and communicate. The human attempt in the dawn of civilization must have been the overflow of the instinct to express something to communicate it to the other members. Unknowingly and unconsciously man in his adventure of self-expression created something—some vague utterances which took the form of language. Language is but the human attempt to express his whole personality in order to communicate to others and here in this endeavour was hidden the germ of what we call culture and civilization. Languages which seem to us so natural have a long history of human efforts behind them. We are so accustomed to newspapers, books and magazines that we take it for granted that the world has always been as such. As a matter of fact, writing, the most important of all human inventions is quite new. Without written words we would be like cats and dogs who can only teach their kittens and puppies a few simple things based on instincts only.

Intellect by its very nature is transcendental in character. It always strives and tries to go beyond. It is never satisfied. It is always hungry. It wants to expand and analyse. This remarkable tendency of intellect is marked in every sphere of human progress. The art of writing was invented and it was not enough. Civilization was growing faster, the boundary of human relationship was expanding, man felt a necessity to be fast enough to keep pace with

the other direction. The quick developing tendency led an intense desire in mankind to create such a thing as to let the whole humanity understand the writing. Here, we obviously conceive the germs of printing which of course is the preservative of all arts. Thus, the art of printing came into existence as the result of human endeavour to immortalise his writings and to eternalise the human tendency to communicate. Like many other inventions printing plays a distinctive role in these days of enlightened civilisation. How horrible it would be if by a miracle this mechanism is taken off?

The printing art in the last thirtyfive years has advanced with wonderful rapidity. Special characters, special devices and special arrangements for accomplishing some particular object are continually being developed. We would have been without our ancient legacy had there been no printing. It would not be an exaggeration to say that printing has ever been a friend of mankind, an aid to intelligence, a stimulant to thought, a pioneer of liberty and freedom, a propounder of law and wisdom and above all a preserver of truth and morality.

A psychological analysis of the art of printing would lead us to the conclusion that it has got a psychic impress. An image or an idol is a mere lifeless entity, it is our devotional attitude that makes a traditional association of spirit with them. Likewise printing cultivates a sort of habit in our mind and gives association.

When we think the world of to-day gover-

AUGUST 1958

3

12 பாயின்ட் பவானி ரோமன்

ஒருவன் தன்னைத்தான் நேசிப்பானாகில், அவன் தன்னையே கவனமாய்க் காத்துவரவேண்டும். இரவில் மூன்று யாமங்களில் ஒன்றிலாயினும் ஞானி விழிப்புடன் கவனமாயிருப்பானாக.

ஒவ்வொரு மனிதனும் முதலில் தான் நன்னெறியில் நிலை பெறவேண்டும்; பிறகுதான் மற்றவர்களுக்குப் போதிக்கவேண்டும். இத்தகைய ஞானி கிலேசமடைவதில்லை.

மற்றவர்களுக்குப் போதிக்கிறபடி ஒருவன் தன்னைப் பண்படுத்திக் கொள்ளட்டும். தன்னை நன்கு அடக்கியாண்ட பிறகு, பிறரை அடக்கியான முடியும். ஏனெனில் தன்னை அடக்கிக் கொள்வதே கடினமான காரியம்.

ஒருவன் தானே தனக்குத் தலைவன். வேறு யார் தலைவனாயிருக்க முடியும்? தன்னை நன்கு அடக்கிவைத்துக் கொண்டால் ஒருவன் பெறுதற்கரிய தலைவனைப் பெற்றவனாவான்.

மூடனுடைய பாவம் அவனிடமே பிறந்தது, அவனே படைத்தது, வயிரம் மற்ற மணிகளை அறுப்பதுபோல், அவன் செய்த பாவமே அவனை அழித்துவிடும்.

மாலுவக் கொடி கடம்ப மரத்தைச் சுற்றிப் படர்ந்து மரத்தையே அழுக்கி விடுவதுபோல், ஒருவனுடைய தீவினையே அவனை அழுக்கிவிடுகிறது; பகைவர் செய்யவிரும்பும் தீமையை அவன் தானாகவே செய்துகொள்கிறான்.

ஷே பவானி ரோமன் எழுத்துக்கள்
18, 14, 12, 11, 10, 9 பாயிண்டுகளில் கிடைக்கும்

தயாரிப்போர் :
நார்ட்டன் அண்டு கம்பெனி
ஸ்பார்ட்டன் டைப் பெளண்டரி
சூளை, சென்னை-7

ned by the science, the significance increases all the more. The world of to-day has come to mean so short that we in an instant get every international information. To quote Robert H. Davis would not be an exaggeration. He speaks in the person of printing press itself :—

“I am the printing press, born of the mother earth. My heart is of steel, my limbs of iron, and my fingers of brass. I sing the songs of the world. The oratories of history, the symphonies of all time. I am the voice of to-day, the herald of to-morrow. I weave into the warp of the past of the woof of the future. I tell the stories of peace and war alike. I make the human heart beat with passion or tenderness. I stir the pulse of nations and make brave men do braver deeds, and soldiers die. I inspire the midnight toiler, weary at his loom, to lift his head again and gaze with fearlessness, into the vast beyond, seeking the consolation of a hope eternal. When I speak, a myriad people listen to my voice. The Saxon, the Latin, the Celt, the Hun, the Slav, the Hindu all comprehend me. I am the tireless clarion of the news. I cry your joys and sorrows every hour. I feel the dullard's mind with thoughts uplifting. I am light, knowledge, power. I epitomise the conquest of mind over matters. I am the record of all things mankind has achieved. My offspring comes to you in the candle's glow, amid the dim lamps of poverty, the splendour of riches; at sun rise, at high noon and in the waning evening. I am the laughter and tears of the world, and I shall never die until all things return to the immutable dust. I am the Printing Press”.

Printing is art and science both. Its mechanism provides it with an individuality of science and its practical services glorifies it with an individuality of art. It is a growing science and developing art. The civilization takes more care and more interest in working it out to perfection. It is not possible to imagine a world without books. The printed word has not only played a part of vital importance in our life, but has become a part of it. What originally began as the art and adventure of

one man—a scribe or an engraver—who combined in himself the role of the typographer, the printer, the publisher and more often than not the author, what began only as a craft developed into an industry and eventually into many separate industries. To-day the typographer, the paper manufacturer, the ink maker, the printer, the publisher have each to specialise in his field and it has no longer possible for any individual to take charge of all the operations.

The production of books is a romance because every one of them is a new creation—a creation in which so many different technicians have to coordinate. The paper maker offers a large variety of papers. The publisher selects the paper depending on the type of the book and the class and the type of readers for whom the book is made. The types are chosen from the vast variety which the typographer has placed at our disposal. Will the book contain illustrations, are they in colour, how many copies are to be printed—these and other factors determine by which process the book is to be printed—letterpress, offset or gravure. Over all, there is a question of economy, the type of binding has to be decided, is it to have an ordinary paper cover like conventional French books, the glossy American cover or is to be bound in Morocco leather and gold embossed? Perhaps none of these appeals, a stiff cover is decided upon—an artist gives the design for a dust cover or the jacket.

Every stage in the production of a book is preplanned. Each book emerges with a character, a character which all these technicians have lent to it, ready to adorn the showcase of the booksellers and to wait patiently till you pick it up for your book-shelf. ★

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THE BOOK BINDER AND THE FINISHED PRODUCT

A LECTURE BY LEWIS KITCAT AT THE ROYAL SOCIETY OF ARTS

IN general, progress has followed two lines. The first, of which we hear little, is those few specialised plants, largely in America, which produce a given book in enormous quantities, that is to say, true mass production. The machines are not adapted to deal with a range of sizes or thicknesses, and once started on a given product they are left to get on with it. They are usually initiated, and sometimes made, by the engineering departments of the book-manufacturers or publishers who sponsor the product. This sort of plant, due to its lack of versatility, is totally unsuited to supply the needs of the general book publisher, for whose work a very different sort of plant is needed.

Publishers' binders are dealing with initial runs in the order of three to ten thousand copies, and quantities beyond that are the exception rather than the rule. When it comes to repeat orders a run of no more than a thousand may be involved, and even less.

Apart from the size of run there is considerable variation of page sizes, variation of thickness, type of paper, and so on, diversity being implicit in the making of books.

You will not be surprised to learn that this need for versatility adds to the complication of the machines. Every operating part which

Mr. Kitcat urges that quality of binding should be retained along with economy of production. The public, although knowing little of the techniques of binding can identify a well brought-out book. (Continued from May '58 issue of *Printech*.)

guides the book through the machine, and those that perform the binding function, must be made adjustable to cope with a queue of jobs each differing in some and perhaps many particulars from the next. No Crown 8vo, even, is exactly like another Crown 8vo.

There is now an almost complete range of such machines, largely emanating from America, each dealing with an individual operation, and thus the jobs go from machine to machine until the books are completely processed.

If it is difficult and costly to build an adjustable machine to do one process only the difficulties and complications are much increased if such a machine is to do two operations and the mind boggles at the size, cost and complication of the adjustable machine which will do the whole process in one.

As a step towards the complete machine, devices are available for linking together

groups of established fast running machines whereby the books pass automatically from one machine to the next without intermediate handling.

On the other hand, operated individually, the same machines are generally staffed by an operator and an assistant. The operator, who is the modern counterpart of the skilled hand-craftsman, is responsible for the machine. His particular duty is the setting operation with the aid of the assistant. When the machine is running satisfactorily one feeds the books in and the other takes them out.

With the linked system there must still be an operator for each machine, as on changes of job all machines must be reset simultaneously, but a lesser number of assistants is called for and moreover much floor space is saved as there are no stacks of partly processed work between the machines.

The points in favour are obvious, but there is the reverse side to the medal. The individual machines are by no means fool-proof, particularly when they are constantly re-adjusted from size to size; hence the speed of the whole unit is limited to the speed of the particular machine which, on any one job, may be causing the most stoppages, or takes the longest

to set and get under way, as when one stops they must all stop.

In the original method whereby each machine is operated individually, difficulties experienced, say, in the morning on one machine may well be made up by an exceptionally trouble-free afternoon; and thus, by and large, no output is lost.

These are problems which the individual binder must settle for himself, but it would appear that linked machines are likely to prove more successful on long runs than on short.

Machine Costs

Now the object of all this mechanisation is to produce cheaply a problem of cost. A simple way of assessing the wage cost projected plant is first to estimate the average length of run that can be offered to the plant. Let us suppose that it is 1,500, made up of a mixture of jobs varying, perhaps, between 10,000 and 500 copies. Thus before completing 150,000 books, 100 sets, including the time of getting up speed, will have been made, plus the time occupied in running off 150,000 copies, which must include time for inadvertent stoppages. The wage cost that will be a certain figure, and a comparison can be made of the labour cost between different machines or different methods, the setting cost being included.

To the wage cost must be added depreciation and cost of maintenance of the machine, and the cost of the floor space occupied. The quality of the work the machine produces is, of course of prime importance, as also its range of sizes in relation to the type of work it is required for. Lucky is the binder who knows the correct answer to all these points before he has committed himself to new machines and layouts?

New Processes

Flexiback binding is a process whereby a cloth lining is applied to the back of a book immediately after sewing and, following lining the book is cut and then backed. It has found many users and helped, after the war, in a marked way to satisfy the urgent need for more books. The machine for doing it, being British built, was available at that time,

The discerning printer

takes great care in selecting
the materials of his work—
fine paper, good ink, clear type.

He uses—

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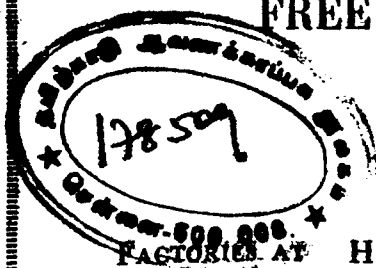
—because he knows

he can rely on them for

QUALITY

ECONOMY

FREEDOM FROM TROUBLE



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PRINTECH

whereas the Smyth lining machine was not.

The Smyth liner, I would explain, follows the conventional hand method whereby, after cutting, the back of the book is glued and, when dry, backed.

The Flexiback process, and machine for doing it, was originated in my Company's Works in the middle 1930s, but the subsequent manufacture of the machine for the trade, passed into other hands. The principal difficulty with Flexiback is to give the book a satisfactory and lasting rounding and backing, and I fear the initial attempts left much to be desired.

Later, an improvement was achieved by the use of expandable cloth.

A still later development in the process was the use of polyvinyl adhesives in place of flexible glue. The polyvinyl resists less than the glue and is an improvement.

Just about a year ago my Company introduced the Steamset process—a further development. In this process there has been a reversion to flexible glue and the expandable cloth is also used. Immediately prior to rounding and backing, steam is applied to the lining on the back, thereby softening the cloth and melting the glue. In this condition neither the glue nor the cloth resists the backing operation in any way, and moreover they set immediately in the new and desired rounded shape. The cloth lining and the glue take on a somewhat steely, but permanently flexible character, and the joints of the book, which, as I have explained are so important to the appearance and soundness of the whole structure, are exceptionally firm and well formed.

Another process, also developing from the Flexiback process, is the reintroduction of unsewn binding. Basically, the idea is to eliminate the cost of sewing by the substitution of a process which costs less. Others who are actually binding by the unsewn method can speak with more authority than I, as my direct experience is restricted to experimentation and observation of production methods. But it is a

subject of great interest and one I should like to deal within the limits of my knowledge.

Unsewn binding, under the name of "perfect" binding, has, of course, been with us for decades, but the introduction of polyvinyl adhesives in place of glue has much improved the product. In this form it initially came on the market under the name of Thermoplastic and owes much to the energy and drive of Mr. Richard Clay. There are now several competing machines for doing it, the magnet being to secure a hold on the paper-bag market, for which the process is admirably adapted and, I believe, universally used.

The polyvinyl adhesives used are white, creamy, substances, which have the property of soaking into the individual leaves of the book, when the back folds have been cut off, and of doing so much more effectively than glue. Moreover, such adhesives remain permanently flexible, which is a most desirable feature. It is usual, as the books come from the machine, for the lines back to rest for a time on a hot plate to accelerate the drying of the adhesives. On the papers suitable for the process—and care has to be taken in their selection—my observation is that the adhesion of the leaves is good, and I think the modern paper-bound book with its square back is smart and trim and well suited to its purpose.

When the process is applied, however, to cased books, something of the initial difficulties experienced with Flexiback binding are again encountered, and so much resistance is experienced from the adhesive and the lining cloth that a full round and firm joint cannot be reliably obtained. (As Mr. Unwin has suggested, the process needs something to bring it into the standard binding class.)

It may well be that in course of time these difficulties will be overcome, and it might be thought that the steamset process would supply a solution.

Covering Materials

Over the years there have been innumerable challenges to the supremacy of bookcloth as the universal covering material. A patent granted for one of these in 1846 specified that

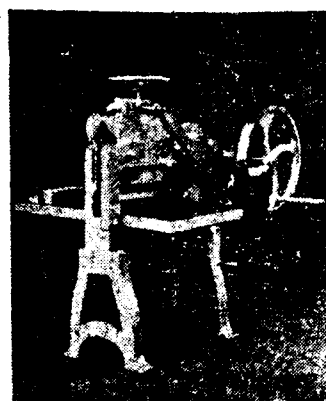
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it was suitable for use on bookbinding, bonnets, curtains, theatrical decorations and coffins.

I have no information as to whether this versatile material was actually used for any of these purposes, but, in any case, so far as books are concerned it made no lasting impact. Much the same can be said of many other challengers, with one notable exception, Linson. For the cheaper and medium class book Linson, in the course of a few years, has firmly established itself and very well does it serve its purpose. In the bindery it gives rise to no difficulties and is, in fact, less temperamental than cloth. Imitation may well be the sincerest form of flattery but, I fear, that can be of little consolation to the cloth manufacturers. For the better class books, however, cloth still holds its place.

A long overdue improvement, required in all covering materials, is the production of a finish which is fully resistant to finger-marking, and without having to resort to a glazed effect. A pyroxylin impregnated cloth having a matt cambric finish was put on the market a few years ago and this was very resistant. But, the cost was a few pence a yard more than the ordinary grade, and I learn that it did not catch on. Moreover, there are subtleties in these things: the material was attractive to the eye but harsh to the touch, and it appears that pyroxylin is not the answer. One instinctively feels that out of the vast range of new substances coming from the plastic industry there will emerge the desired cheap material, or at least a dope which will give satisfactory results on existing ones.

Plastic Binding

No review of bookbinding would be complete without mention of the use of plastic covering materials as used in Germany. The type of material used is reminiscent of, but much superior to, what is termed leathercloth. From it the Germans produce the limp bound form of book and a very attractive job they make of it. But as the material is expensive, I cannot believe the binding is cheap.

As I see it, limp binding over here is a type

of binding which has gone out of favour. I refer to velvet-calf poets and the like, and there appears to be little demand for this style of thing. In this I may be wrong, but I have no doubt that if publishers can find a substantial market for such bindings British binders will not be slow in developing the necessary technique.

Boards

From covering materials it is an easy step to boards, but to take adequate steps to prevent them warping is more than difficult and, in point of fact, a complete remedy has not yet been found. There is not much warping when the books are used in this country, but when British bound books are exported to the United States there is often undue warping, particularly when they are kept in superheated rooms.

It must not be thought that American bindings are immune from the trouble, but they do warp less than ours. On both sides of the Atlantic there has been considerable research on the subject, but no new facts have come to light of recent years.

Very briefly, the cause of warping is that the components of the cover are first class absorbers of moisture under humid conditions and eject the moisture with equal facility when the climatic conditions are dry. In such an atmosphere they expand or contract, each of the three materials; the cloth, the boards, and the end paper; to a different degree, and thus distortion of the cover takes place.

American Boards More Stable

A well made and well matured board is fairly stable under varying atmospheric conditions, and the thicker it is the better it is able to curb the activities of its companions, the cloth and the end paper. The American chip board as used in the States is more stable board than Dutch strawboard or the British board made from waste-paper. Further to that, American specifications provide for the use of a thicker board than is normal over here. Probably, in these two factors, lies the main difference in the behaviour of the two bindings.

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A direct approach to the complete remedy would appear to lie in the use of a non-absorbent rigid material in place of the conventional board, and when that appears, at the right price, the problem is solved.

Blocking

And finally I come to the decoration of the book, the beauty which is but skin deep, but which can make or mar it. Unfortunately for the binder the development of the jacket has largely stolen his thunder, as after the publisher has exercised his extravagance on what used to be called the dust-wrapper he proceeds to economise on the binding.

Blocking departments to-day are mere shadows of what they were at the turn of the century, when no juvenile book was complete without decoration in four or five colours. In those days there were also a host of girls engaged in the delicate art of wafting gold leaf from its containers on to the cases in preparation for gold blocking. This process is now completely revolutionised by the mechanical method of ribbon feed.

The manufacturers of these ribbons, foils as they are termed, are to be congratulated upon marked improvements in their product. The ribbon itself, known as the carrier, has deposited upon it the metal required for the blocking, real gold, bronze (for imitation gold), or aluminium, the latter to give the effect of silver.

It was only a few years ago that aluminium blocking was indeed a dull affair, but improvements in depositing the metal on the ribbon carrier now give results which outshine polished silver.

By Courtesy - The Paper Market

The Editor welcomes contributions, views and news of interest connected with the printing and publishing industry from readers for publication.

State Awards for Good Printing and Designing of Books

THE Competition and Exhibition in connection with the Fourth Annual State Awards for Excellence in Printing and Designing of books and other publications will be held in New Delhi in November, 1958. The Awards will be given for entries in 25 categories : 1. Children's books for children below 10 years; 2. Children's books for children over 10 years; 3. Illustrated books; 4. Art books; 5. Book Production (English); 6. Book Production (Indian languages); 7. Books on Indian made paper; 8. Daily Newspapers (English); 9. Daily Newspapers (Indian languages); 10. Display Advertisement layouts; 11. Art Magazines; 12. House Journals; 13. Periodicals; 14. Posters; 15. Folders (offset or Photogravure); 16. Folders (Letterpress); 17. Calendars (offset or photogravure); 18. Calendars (Letterpress); 19. Diaries; 20. Devanagari Type Faces; 21. Publicity Booklets; 22. Labels; 23. Best bound book; 24. Packing; 25. Point of Sales (Counter and Display Material).

Limited to India

The entries will be limited only to productions brought out in India during the period August 15, 1957 to August 14, 1958. In each category, two sets of First and Second Prizes will be awarded, generally, one each to the Printers and Publishers and Designers, as the case may be, to be adjudged the best and second best entrants. Besides Certificates of Merit will be given to those obtaining Third positions.

No Entry Fee

Entries are being invited from publishers, printers, business houses, advertisers, advertising agencies, and commercial art studios. No entry fee is charged. For details apply to the Directorate of Advertising and Visual Publicity, Ministry of Information and Broadcasting, New Delhi. The entries for the Competition, it may be noted, should reach the Directorate not later than October 1, 1958.

★

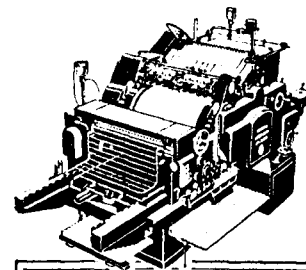
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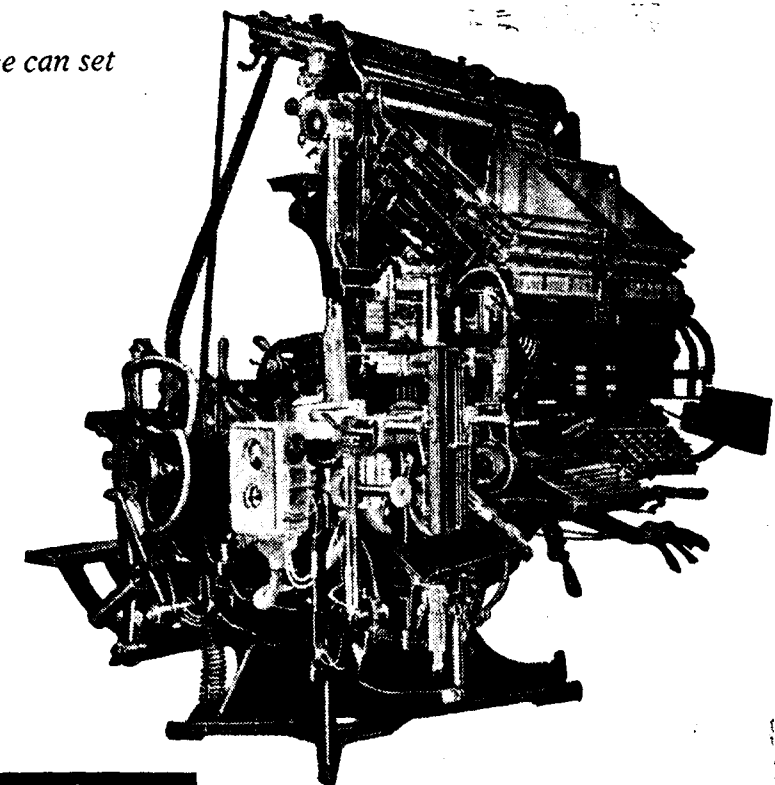


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SEPTEMBER 1958

15

POWDERLESS ETCHING

AN important new stage in the development of the powderless etching process has recently taken place as a result of an agreement between The Monotype Corporation Limited, together with its associated companies, and The Dow Chemical Company of the U.S.A.

The Monotype Corporation first became connected with the powderless etching process in June 1957, when it was announced that its subsidiary company, Pictorial Machinery Limited, would be manufacturing the Dirats Powderless Etcher at its Crawley factory. This machine was shown at both the Graphic '57 and Drupa international exhibitions where it aroused great interest.

Consequent upon the Dow Monotype agreement, Pictorial Machinery will continue to be responsible for manufacturing powderless etching machines and for distributing them through its own branches and agencies and those of The Monotype Corporation in accordance with the terms of the agreement. The machine will be known as the 'LITHOTEX' Powderless Etcher for the 'DOWETCH' and DIRATS Processes for magnesium and zinc.

The Monotype Corporation recognises that at present zinc and magnesium each has its own particular advantages. At the same time it realises that, in the light of future research and experience in a technique which is comparatively new, there may be occasion for changes and innovations.

Powderless etching may well prove to be the most significant post-war development in the Graphic Arts Industry, particularly when combined with the filmsetting systems that are now commercially available. The Monotype Corporation will take the keenest interest in its development and looks forward to an active co-operation with existing and future customers in furthering the application of this

process to the benefit of the whole of the printing trade.

In this connection the Monotype Corporation is pleased to announce, by agreement with Birmetals Limited, that Mr. Eric Williams joined its staff on the 1st September, 1958. Mr. Williams is already well known amongst Dow users and will be available to advise both existing and future customers on any problems connected with the powderless etching zinc and magnesium.

All enquiries regarding the 'LITHOTEX' Powderless Etcher should be made to Pictorial Machinery Limited, Kelvin Way, Manor Royal, Crawley, Sussex. ★

A Change in name after 62 years

The Paper Box & Bag Maker, published by Ms. S. C. Phillips & Co Ltd., London since May 1896 is christened with a new name from this month. "PAPER PACKS".

The Editor of the journal in a message regarding the change of the name in the august issue says "Several factors have weighed with us in reaching this decision and we will mention merely two of the things that have been uppermost in our thoughts. One is that in this modern world, where the tempo is living has been so much speeded-up in all respects, the old title of *The Paper Box and Bag Maker* is unwieldy; it scarcely belongs to this streamlined age accustomed to the snappy slogan. Then again many packaging products made from paperboard and transparent film cannot either be called bags or boxes.

In deciding to adopt the name PAPER PACKS we realise that it may not please everyone; but the ramification of the packaging industry are such today that one cannot reflect all of them in a title and have brevity as well, and we have striven for the latter. At any rate we give recognition to the paper industry which originally provided the material for the packs which our readers make and still predominately does so". ★

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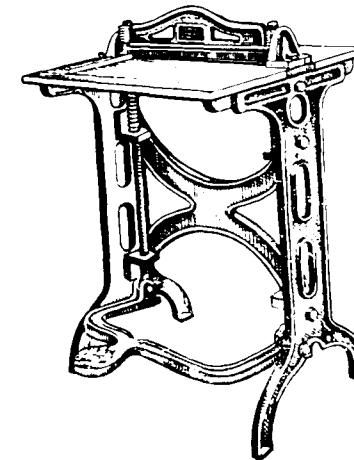
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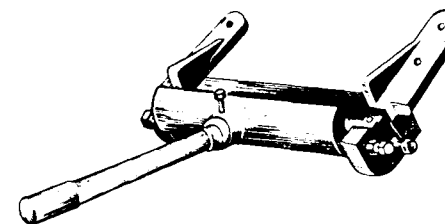


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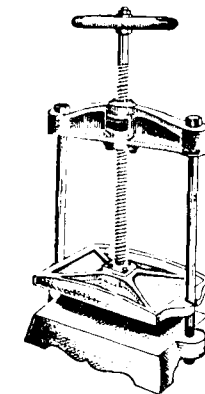
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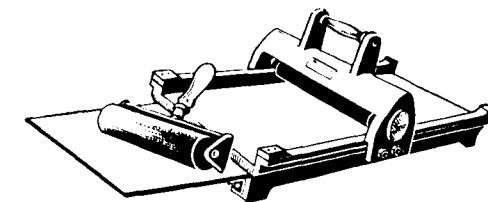
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As one of our patron readers you are aware that this publication is being brought out on a non-profitable basis by a band of honorary workers with the sole aim of disseminating technical information in the Printing and Publishing Industry.

Owing to the increase in the cost of paper and printing we regret very much to inform you that it would be impossible for us to continue sending complimentary copies. We are sure as one of our readers in the past few years you would now enrol yourself as a subscriber. Please fill in the subscription form below and return the same together with your subscription of Rs. 10/- and ensure the regular supply of PRINTECH in future.

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To

The Business Manager

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MADRAS-1

Dear Sir,

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Yours faithfully

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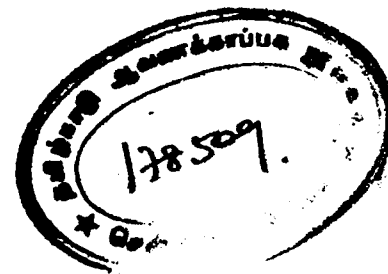
VOL. VI. AUGUST 1958 No. 1

7 KONDI CHETTY ST. MADRAS-1

Grams: "PRINTECH"

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THE FIFTH MILESTONE

The years that have passed have not been without difficulties; there have been tests and tribulations, but thanks to the goodwill and co-operation of the members, the master-printers, and other well wishers in the trade, we have not only crossed the hurdles but have actually gained considerable strength. This does not, however, mean that we are not conscious of the fact that PRINTECH has not yet reached that state of perfection so essential for a technical publication of this kind. There are many limiting factors, which we are ardously trying to overcome.

We take the opportunity of placing on record our appreciations and sincere thanks to the advertisers and well wishers for the support given to this publication and we are confident that they would continue it in larger measure.

AUGUST 1958

IN THE MANUFACTURE OF PRINTING INKS

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LTF Says

Larger Lens Stops Provide Sharper Images
Modern lenses give improved resolution when stopped down several stops
LTF made series of steps to see effect stopping down had on resolution
Claims it is much better to use larger stops and reduce light intensity.

THE LITHOGRAPHIC Technical Foundation research laboratory in Chicago recently pointed out how misinformation is passed from one generation to the next in citing the common belief that the smaller the lens diaphragm, the better the resolution of the image. This was so of process lenses that were in common use until shortly after the first World War. With modern process lenses, however, the exact opposite is true.

According to LTF, two main factors are involved in this situation: (1) the effect of field aberrations due to the lens itself, and (2) the effect of diffraction.

As you stop down a lens, the effect of field aberrations is reduced. In other words, detail that is picked up and relayed to the film plane by the outer edges of the lens is brought into better resolution. With modern lenses of all types this improved resolution is best when the lens is stopped down two or three stops from its maximum aperture.

As soon as you go beyond this point, however, you start to lose resolution. The reason is that the more you stop down, the more diffraction will occur. Diffraction, you will recall, is a light spreading effect that takes place when light rays pass through an aperture. The more you stop down, the more this diffraction affects the image and the more sharpness and resolution you lose.

A Bureau of Standards research paper on lens performance states that the limit of resolution with a perfect lens and perfect film is

determined by this formula: $R = 1426/f/\text{No.}$ Resolution in lines per mm. (Multiplying your answer by 25.4 gives lines per inch).

From this formula we can see how rapidly resolution decreases with increasing numbers. For example, if you can resolve 9,055 lines per inch at $f/4$, you will resolve only 2,264 at $f/16$, 1,132 at $f/32$, 566 at $f/64$ and 283 at $f/128$.

Process Lenses on Flat Copy

Before you say that this conflicts with your own experience, remember that we are talking about process lenses that work with flat copy. Also remember that we are talking about sharpness and resolution not depth of field. In fact, it is very likely that this wrong belief got its start with general amateur and commercial photographers.

It is true that stopping down does increase your depth of field or apparent sharpness of near and far objects. While stopping down does bring these near and far objects into acceptable focus, it does so by sacrificing the resolution of every object in that field.

In other words, the resolution of an object the focal distance of a stopped down lens, is considerably less than it would be if the lens were stopped down only about two stops less than maximum.

LTF recently had a chance to check this information. First, they made a series of tests to see what effect stopping down had on the resolution of line images. They found that there was a progressive decrease as the lens was stopped down. Also, measurements with

AUGUST 1958

P-2

5

the camera set at same size and the lens set at f/90, resolution was about 40 percent less than it was when the lens was set at f/16.

They then made another series of negatives to see if there was any difference in resolution between glass screen halftone negatives made with large stops and short screen distances, and negatives made with small stops and large screen distances. The copy consisted of a photograph, a 10-step gray scale, and a special resolution target.

The negatives were made with a 150-line glass screen at a 50 per cent reduction. The same camera, film, developer, etc. were used. Only a main exposure was used. The tonal range of all the negatives was adjusted so that they were similar. The screen distance and lens aperture settings ranged from 36/64 at f/90 to 6/64 at f/16.

Again, the result was the same. As the lens was stopped down from f/16 to f/90, there was a loss of resolution of 50 per cent. Visual examination showed much less sharpness.

Stopping down alone reduces resolution. Also, in making halftones, the combination of smaller aperture and longer screen distances reduces resolution still more.

LTF does suggest one benefit for stopping down in process work. This is in the conversion of halftones to continuous tones for re-screening. You can blend the halftone dots in a 133-line print by making a copy negative with the lens stopped down to about f/128.

Now what about times when you are working with fast emulsions in continuous tone and colour separation work? In the past, smaller stop like f/45, f/64, and even f/90 have been suggested to lengthen exposure times. According to LTF, this cannot be recommended and should not be done.

Use Larger Stops reduce Light

LTF claims that it is much better to use the larger stops and reduce the intensity of the illumination. You might be able to do this by moving the lights farther away from the copy by adjusting your lights depending on the type you use, or as a last resort by the use of a neutral density filter if you can't otherwise reduce light intensity.

In some cases, none of these things will be possible and you will be forced to stop down. You should know, however, that whenever you do so, you automatically sacrifice image definition. ★

By Courtesy Inland Printer

(Continued from page 17)

insets designed and printed at the schools. Two features of permanent reference are an article on the new Copyright Act by Eric Dixon and a select bibliography of the graphic arts by W. Turner Berry and J. Mosley of St Bride's Library.

An appropriately reminiscent article by Dr. G. L. Riddell which leads the Technical Section recalls the beginnings of scientific research applied to printing in this country. Some of the latest results of the great advances made by science and technology are described in articles on the study of print quality (by Dr. W. H. Banks of PATRA), on the printing of colour by offset lithography on newsprint on web rotaries (by a group of American printing research workers), on the control of variables in colour reproduction (from America's Litho Technical Foundation), and on electronic methods of colour correction; on making lithographic prints from an electrostatic image (another result of American research), on ROP colour-printing methods by the Liverpool Daily Post & Echo and by many American newspapers, and on the nylon printing plates developed in the Time & Life laboratories. Developments in the application of photographic typesetting to each of the three printing processes are described in other technical articles and examples of photographic composition include specimen pages from the first English filmset book, a Penguin.

Laymen as well as technicians will be interested in two other articles in this section of the *Annual*, one describing the modern methods of bank-note engraving and printing and the other explaining the continuous revision and meticulous reproduction of Ordnance Survey maps. Three practical contributions to the ever-present problem of improving the quality of printed reproduction are provided in articles which report the results of scientific research on the fluffing of lithographic papers, on how to select the best half-tone screen for a particular kind of paper for letterpress printing, and on methods of measuring the depth and area of photogravure cells whose sizes and shapes govern reproduction quality in the increasing masses of photogravure printing.

The articles are, as usual, lavishly and appropriately illustrated, the many pictures in the text and in the pictorial section including examples of the finest work of British and overseas printers and plate-makers. ★

Hints on Practical Management for Enterprising Printers

By

R. KRISHNAMURTI, L.P.T.

Investigator in-charge (Press Unit) Small Industries Organisation, Govt. of India, New Delhi

HAVING been interested in the Printing Industry and having had the opportunity of learning something on the management side thereof in particular, I desire to share the knowledge I have gained in this line, with the young master printers entering the Industry. My aim is to see that the printing trade in India is given the proper impetus to rise to higher and higher levels so as to equal that state of perfection attained in this direction in foreign countries like Great Britain, Germany and United States of America. It is my fervent hope that experts in the Industry will welcome this article and be kind enough to offer constructive suggestions regarding the betterment of the industry. I feel that we can attain that perfection only by sheer hard work in producing more and more quality printing.

Introduction to the Management

Management is not an easy task; in fact in practice it will be noticed that it is one of the most difficult tasks. The Manager of the Press has to shoulder tremendous responsibility. The sword of Damocles is always hanging over his head. Problem after problem will confront him in quick succession, and it needs all his tact and resourcefulness to solve them successfully. At the outset, he should have before him a set of principles to be adhered to at all costs. Then he should set his heart to his work and with indomitable patience and tenacity, he should tide over the initial crisis. To put in a

nut shell, he should be a man of principles, a strict disciplinarian and the proud possessor of deep technical knowledge of all the branches of the Printing Industry. Managing a printing establishment is not like relaxing on a sofa but walking on the razor's edge. Many traps will have to be avoided and many pit-falls would require to be overcome. Great determination to succeed with a will to work hard should be developed right from the beginning.

Having decided to start a printing establishment with necessary funds (allowing some extra for contingencies and unforeseen expenses, of course,) secured by way of partnership or by way of shares, certain points have got to be analysed. First, the partnership or joint stock company should be legally formed in consultation with a lawyer, which will prevent many a fundamental trouble later on. Next, a place for works and office should be selected. If both are accommodated in the same building, it will save some supervisory charges. The office should be located in the main business centre with a good frontage and show. There is little use in selecting a place where there are already many printing establishments. It is good to go to a remote but busy place where business can be acquired in plenty and a reputation set in executing the works. A general policy as to what class of work is to be done should be decided and an arrangement

12 பாயின்ட் பவானி ரோமன்

ஒருவன் தன்னைத்தான் நேசிப்பானாகில், அவன் தன்னையே கவனமாய்க் காத்துவரவேண்டும். இரவில் மூன்று யாமங்களில் ஒன்றிலாயினும் ஞானி விழிப்புடன் கவனமாயிருப்பானாக.

ஒவ்வொரு மனிதனும் முதலில் தான் நன்னெறியில் நிலை பெறவேண்டும்; பிறகுதான் மற்றவர்களுக்குப் போதிக்கவேண்டும். இத்தகைய ஞானி கிலேசமடைவதில்லை.

மற்றவர்களுக்குப் போதிக்கிறபடி ஒருவன் தன்னைப் பண்படுத்திக் கொள்ளட்டும். தன்னை நன்கு அடக்கியாண்ட பிறகு, பிறரை அடக்கியான முடியும். ஏனெனில் தன்னை அடக்கிக் கொள்வதே கடினமான காரியம்.

ஒருவன் தானே தனக்குத் தலைவன். வேறு யார் தலைவனாயிருக்க முடியும்? தன்னை நன்கு அடக்கிவைத்துக் கொண்டால் ஒருவன் பெறுதற்கரிய தலைவனைப் பெற்றவனாவான்.

முடனுடைய பாவம் அவனிடமே பிறந்தது, அவனைப் படைத்தது, வயிரம் மற்ற மணிகளை அறுப்பதுபோல், அவன் செய்த பாவமே அவனை அழித்துவிடும்.

மாலுவக் கொடி கடம்ப மரத்தைச் சுற்றிப் படர்ந்து மரத்தையே அழுக்கி விடுவதுபோல், ஒருவனுடைய தீவினையே அவனை அழுக்கிவிடுகிறது; பகைவர் செய்யவிரும்பும் தீமையை அவன் தானாகவே செய்துகொள்கிறான்.

ஷெ பவானி ரோமன் எழுத்துக்கள்

18, 14, 12, 11, 10, 9 பாயிண்டுகளில் கிடைக்கும்

தயாரிப்போர்:

நார்ட்டன் அண்டு கம்பெனி

ஸ்பார்ட்டன் டைப் பெளண்டரி

சூளை, சென்னை-7

should be made with some other printer to get all the surplus works executed. For instance, if you are undertaking general jobbing, you can arrange with some other printer to get your book works, die stamping and posters, etc., executed. This is because one is seldom in a position to invest much for an establishment for all classes of works. Next, machinery and equipment should be acquired and installed in an orderly manner for easy production and handling. Lighting of the works, natural or artificial is most important from the health and efficiency point of view of the workers. Machinery should not be crowded. Under no circumstances, should a work suffer for want of materials.

Having installed the machinery, etc., and having arranged the office in an attractive and spacious manner, the Press may be "opened". A set of books and forms for proper maintenance of the Press should be devised and the following list is illustrative of such a set but by no means complete.

- (1) Order form to book orders;
- (2) Work Order to be sent to works with every job. No job should be taken up by the works without a proper work order, which should contain all details of execution.
- (3) Cash Receipts.
- (4) Cash Book.
- (5) Purchase ledger.
- (6) Personal accounts of customers, partners, workers, etc.
- (7) Separate files for Establishment, correspondence, Cash Vouchers, etc.
- (8) Stores indent forms and Cash Vouchers.
- (9) Stores ledger showing receipts, issues and stock-on-hand.
- (10) Order book showing full details of an order.
- (11) Acquittance and Attendance Registers.
- (12) Factory Inspector's Visit Book, leave register, fines and advance-paid register, etc., as per the various Acts. A set of the following acts should

always be with the Master Printer.

- (a) Factory Act and Rules;
- (b) Shop and Establishments Act;
- (c) Payment of Wages Act;
- (d) Press and Registration of Books Act;
- (e) Industrial Disputes Act;
- (f) Copyright Act.

Factory Act, Shops Act and Payment of Wages Act's display sheets should be displayed in every work.

- (13) Press letter-heads, Visiting Cards, Invoice book, etc.
- (14) Daily out-turn sheets for every Worker;
- (15) "Memorandum of books printed" containing all details of books printed and published, to be sent to the Registrar of Books, with copies of such books, etc., as per the Press and Registration of Books Act.

It should be clearly laid down that the Store Keeper should not issue any materials without a proper indent; no cash should be received without a Cash Receipt being issued for it, no cash should be parted with without a cash bill or voucher obtained for it.

The business having begun to function, advertising should be resorted to by distributing handbills, supplying school time-table cards, type & block specimen book and exercise note books, etc., until the business comes to stay. Canvassing should be undertaken by the Master Printer himself by visiting various people, institutions, etc. Travelling Representatives may also be employed on commission basis to whom the rates of business etc., should be clearly made known.

Limited workers should be engaged on temporary basis at the start, with clear terms stated in writing. Some standing orders may be framed to prevent labour troubles but these should have the prior approval of the Labour Commissioner.

Working hourly rates of productive departments, overhead percentage, handling and selling percentage should be worked and kept ready. Jobs should not be over or under

estimated. The former will result in losing the customer and the latter the printers' finances. Customers should be treated very courteously and with patience at times. It should be remembered that the customers are our employers. It would be a good rule to book with 50% advance or the material cost, whichever is feasible, and with the party's signature. The manuscript should be understood correctly and passed on to the Works with a clearly worded work order. The Works should never be delayed, as promptness is the key in succeeding in the Industry. Estimates and job cost sheets should not reveal much difference. Orders should be executed very neatly and to the satisfaction of the customers.

Production Charts

Every Master Printer should maintain at his office a chart showing the jobs under progress in various departments of his works. This will enable him to pass on the next work in time and to find out where a work stands and when it is expected to be completed.

Regular visits of the Master Printer to all the departments of his works will enable him to see where things get stuck up, may be for want of materials or even by negligence and how to expedite them.

Proper accounts should be maintained for Cash, Stores, etc., and an inventory for the press and office equipment should be kept up-to-date. Profit or Loss should be ascertained atleast once a year. Datas as to the fluctuation of the business, standing customers, overhead expenses, materials purchased, etc., should be collected for ready reference.

A set of books on printing and allied trades and on grammar, punctuation, etc., should be with the Master Printer.

Labour Problems

One of the most important functions of the Master Printer is to face the labour problems, which are almost inevitable except in cases where the management and the Labour have very cordial understanding. The Master Printer should have the power of quick decision and should always have the con-

fidence that he is right. Bad elements in the works who casuse troubles, misrepresent, and spoil the name and reputation of the business should be weeded out. Consulting the Labour Officers in charge of the place and giving time to the labour to explain situations, etc., may be adopted with advantage. Giving sympathetic hearing to the labour is absolutely necessary to prevent any clash.

The concern should run very smooth and the labour should be proud of serving the concern. Incentives to labour for good production, after rush periods, etc., are always desirable.

The Government Acts and Rules should always be strictly adhered to.

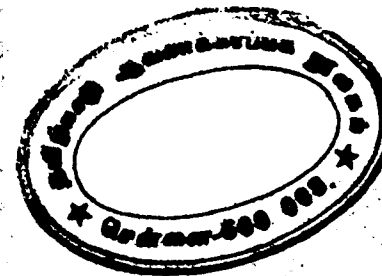
The concern should gradually be expanded by adding equipment and machinery and allied processes. The Master Printer should always be on the look out for expansion of his business and identify himself completely with the interests of the concern. He should not hesitate to put his ten fingers into work and it is always a pleasure to see the huge production in a printing factory, which should be the criterion of all Master Printers to build up the industry in India. ★



"Really, Miss Handbill, I can't imagine what kept you so long in the Machine Room."

By Courtesy—Printing News

PRINTECH



THAT IMPRINT LINE

By

WILFRED MACIEL

(This article is by a member of the Indian Federation of Printing Technologists. He works for Shilpi Private Limited, Advertising, Bombay, as Production Executive, and is on the Executive of the Graphic India Group where he is responsible for publicity and public relations.—Ed.)

APART from the fact that the law insists on the publication in a book, booklet, periodical, etc., of the names of the printer and publisher, the press and publishing firm and their addresses, it is of great importance for a printer to remember that the imprint line is his only advertisement in the entire job and consequently this line which is usually set by a good-for-nothing-in-typography compositor needs greater thought and attention. The printer should be proud of every job he prints and his feeling of pride should be reflected in the imprint.

It is not easy to formulate any hard and fast rules but in order to simplify matters the following points which have been worked out over a period of time in some progressive printing presses are presented for the benefit of printers in simple and straightforward English.

1. Set the imprint line, preferably in Italics, in a measure not exceeding 30 ems pica, and with a body size between 8 to 12 point depending on the nature of the job.
2. The imprint line should be in the same face as that used for the text. Deviations from this are only permissible when the imprint line is taken in a particular face and particular size for all jobs.
3. If the imprint line needs two or three lines see that all these are well balanced. If the first line is 30 ems, the second 30 ems and the third 12 ems only it is

better to have all the three lines set in equal measures of 24 ems each.

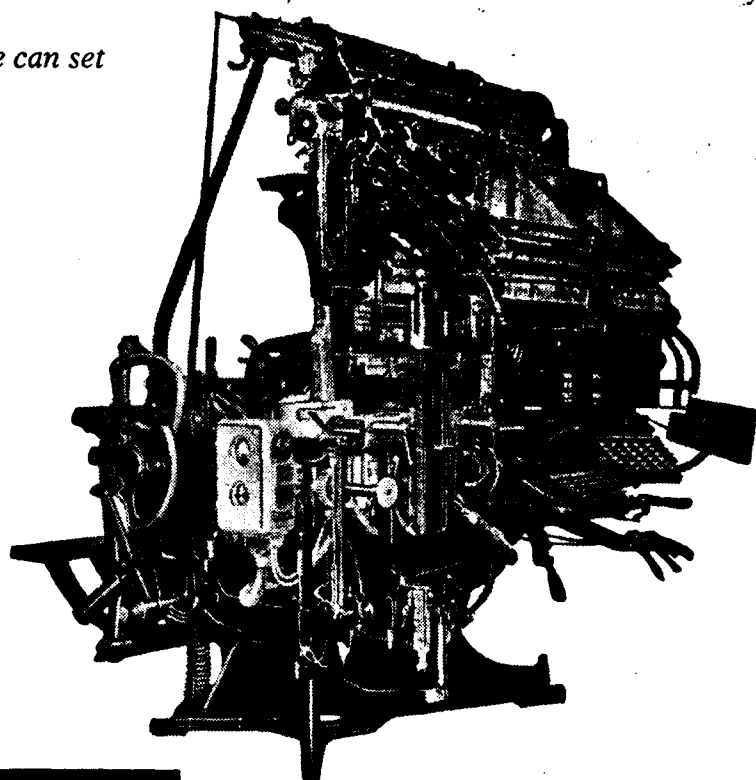
4. The placing of the imprint line presents great difficulties usually. In bookwork it should be taken on the reverse of the title page. In magazines it is best placed on the contents or last page or on the back cover.
5. In small jobs, like leaflets and posters, it is advisable to take the name of the press and town or city (e.g., pushpa printers and publishers, nagpur) in lower case Roman or Italic either at the bottom left or the bottom right in a point size from 6 to 10 depending on the size of the leaflet or poster. Never take the imprint line in bold face if this can be helped. If possible avoid using a rule above the imprint line on leaflets or posters.
6. Before a job is given for typesetting decide where and how the imprint line should appear. At Shilpi Advertising I often ask the Art Department to incorporate the imprint line in the actual design that is being prepared. This ensures consistency with the rest of the composing and layout and does not become forbidding or distracting.

(Printech would welcome correspondence on this article.) ★

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This Year's Newspaper

Design Award Launched

Nature of each entry's readership to be borne in mind

—Judges told

THE 1958 Award for Newspaper Design has now been inaugurated.

The members of the judging panel, who will complete their work in early October, for announcement of the results in November, are Mrs Beatrice Warde, (The Monotype Corporation Ltd.) Mr. Vivian Ridler, (University Press, Oxford, and Mr Malcolm Muggeridge.

The panels task is threefold ; 1, to award the plaque to the entry which in its opinion is the best designed of all ; 2, to select the best designed in each class and ; 3, to name the three runners-up in each class.

The Announcement folder states 'Please interpret this not merely as an invitation to enter a design competition-although the handsome bronze plaque and the twelve ancillary awards will bring gratifying public recognition to their recipients. What I invite you to do is to collaborate in this movement to improve newspaper design by promoting a greater interest in it.'

The Award is administered by a committee comprising representatives of *Printing World*, the Newspaper Society, the British Federation of Master Printers, the Council of Industrial Design, and Linotype & Machinery Ltd.

It is clear from the guidance to be given to the judges, this year, that the Administrative Committee wishes to forestall any possible criticism that the Panel inclines towards one particular kind or class of newspaper as against another.

Under the heading 'How your entry will be judged', the folder states that the judges are not to be concerned with editorial content nor literary quality. Their primary task is to determine how well, in their opinion, the design of each entry serves its intended purpose of 'conveying to its readership the daily, evening, or weekly news on a national, metropolitan, or local scale.'

In doing this they will be instructed to 'pay due regard to the *nature of the readership*' of each entry.

The judges will take cognisance of the general appearance of the page, the disposition of the various headlines, their relative emphasis, and the page balance as regards illustrations. Thereafter they will examine the typographical detail-choice of type sizes, column widths, decorative feature headings, treatment of picture captions, consistency of style throughout the paper, and overall readability.

They will not place undue merit on rare typography or typographical refinements that cannot be seen to serve some practical purpose ; neither will they penalise any entry that departs from accepted typographical practice in order to serve its readers' interests more fully. The choice and treatment of illustrations will also be taken into account.

★



Southern Languages Book Trust's Technical Assistance to Printers & Publishers

THE Southern Languages Book Trust whose main objective is "to sponsor the publication and distribution of high quality low priced books in the four South Indian languages: Tamil, Telugu, Malayalam and Kannada," and which "believes that South India's pressing need for good literature at low prices in the regional languages can be best met by establishing a large scale paper-bound book industry and an extensive book distribution



Pictures on the left:

Sri G. V. Krupanidhi, General Manager, the Southern Languages Book Trust introducing Mr. Ransford D. Triggs and explained the short term workshop organised by the Trust.

The delegates discussing many problems with some rare specimens brought by Mr. Triggs.

Mr. Triggs explains some of the technical problems of 'Make-ready'.



system," is convinced that one of the ways to achieve its objective is "to provide Technical assistance in modern printing, cost accounting, distribution and promotion methods."

As a part of this technical assistance programme of the Trust, the Trust had recently invited Mr. Milton B. Glick of the Viking Press, New York as Production Consultant; Mr. Ransford D. Triggs, of Triggs Colour Printing Corporation, New York, as Printing Consultant and Robert B. Arnold as Marketing Consultant to discuss with various publishers, printers and booksellers the various problems confronting the Industry.

Mr Milton B. Glick who was in Madras from October '57 to March '58 had planned, organised and run the Seminar on *Book Production Problems* at the end of January '58 in Hyderabad in which prominent Master Printers, Publishers, Artists, Booksellers and many others connected with the Industry participated. A detailed report of the proceedings of the Seminar had already appeared in the columns of this Journal in the February issue. Mr. M. B. Glick was ably assisted by his wife Evelyn Harter Glick who is also a specialist in the designing and Production of Children's Books. Under her inspiration and guidance, many Children's books have been planned by the Southern Languages Book Trust which are under production.

Mr. Ransford D. Triggs, the Printing Consultant who was in Madras from March to June '58 had a very busy time visiting various presses in South India, meeting Printers and Publishers and discussing with them various common problems and offered valuable technical advice to many of them.

Mr. Triggs went out on a extensive tour of South India and visited many printers and at some places actually demonstrated the finer aspects of 'Make Ready' process in order to achieve quality printing with the existing equipment. He also ran a workshop in Madras which was at the premises of East Asiatic Co., at which not less than 35 printers participated. The various problems in Make Ready, Colour mixing and printing were discussed and

demonstrations on these technicalities were shown on the original Heidelberg Cylinder Machine. He also attended the Master Printers Conference at Coimbatore and Ooty and served on the Panel of judges at the Printers Exhibition. His comments on the quality of Indian printing is worth noting :—

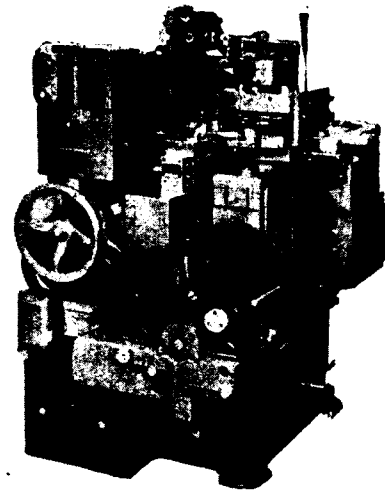
"I was asked to judge as one of a panel of four at the Exhibition, and to read a paper to the convention while it was at Ooty. At the show I found many samples of quality printing. There were samples of work from all over India. As a general rule the best of these came from the larger cities - Bombay and Calcutta. I was very glad of the opportunity to see work from these cities; it was evident that good work can be done all over India with effort, and well trained personnel. In many of these samples there was fine art work and much forethought. There was some work that showed good planning, good colour blocks, and good layout, but the execution was occasionally marred. In many cases there were hard edges on blocks, nails showing and similar minor defects. These were usually due to incorrect methods of make-ready, and a general lack of attention to small details on the part of the pressmen."

There was a tremendous amount of interest shown in the judging and in the methods used by the judges in arriving at a decision. In many of the classes of printing, it was necessary to use a magnifier in order to select the winners.

This judging proved to me that good quality work can be done here by local craftsmen and on the existing equipment.

I want to congratulate the Indian Printers on their fine effort. The spirit with which they gather together to discuss their mutual problems is a great step forward for the entire Indian Printing industry. Much is done in this way to improve existing conditions. The exhibition and competition for prizes stimulates all to strive to produce more quality work. ★

Introducing the 'MONOPHOTO'



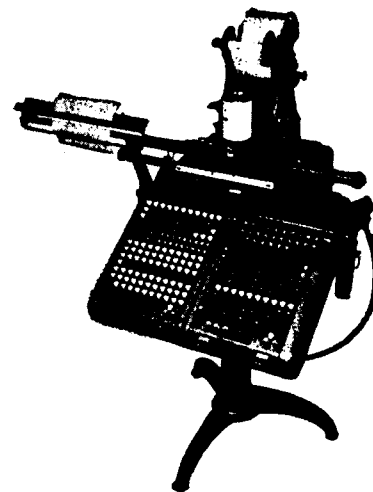
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Workshop run by the Southern Languages Book Trust at Madras



Mr. Triggs is demonstrating the burying of the 'make ready' sheet in the cylinder dressings of the Original Heidelberg machine for a forme which was printed on the occasion.



Mr. Triggs is demonstrating the process of making ready a impression sheet before actually burying the same in the cylinder dressing.

AUGUST 1958



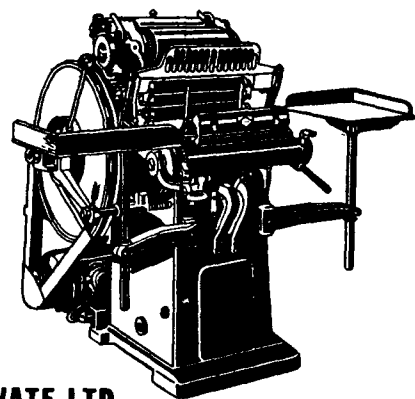
No need of a trumpet to extoll the sweet perfection of our HOHNER Platen press. Even in accents *sotto voce* its versatility is apparent. For small print jobs, for impeccable printing—no other press can keep in touch or tune with the HOHNER.

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THE PENROSE ANNUAL VOLUME 52 1958

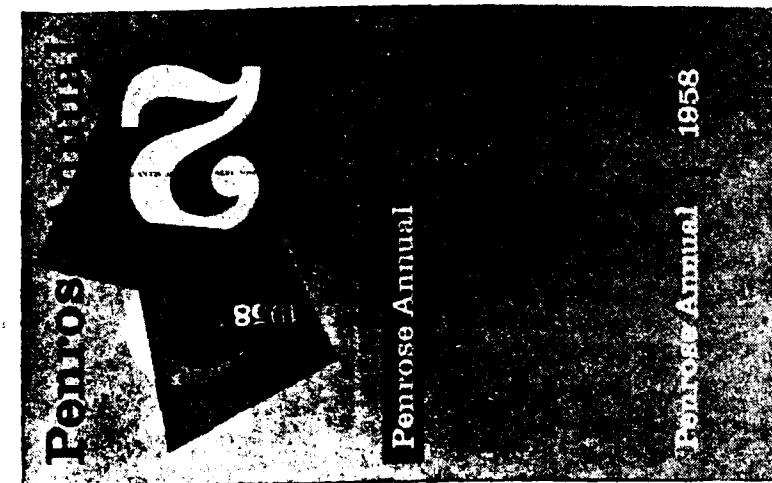
Published by
LUND HUMPHRIES
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 42 shillings net

A lively critique of English typography opens the General Articles in the 52nd volume of *The Penrose Annual*. Its author, David Thomas, concludes that recognizable expertise, based on thorough copy analysis and a comprehensive grounding in type lore, distinguishes true typographic designing from layout. Another writer, Peter Piech, echoes this view in his finding that the advertisement designer relates the advertisement to its true function and deliberately

The design element in yet another field is the subject of a whimsical commentary whose author, Herbert Jones, suggests that design is the larger part of the magic attraction today's magazines have for their millions of colour-bewitched readers. Type design would appear to offer little fresh scope for change, but Edwin Shaar, the designer of a new newspaper text face, declares that slight variations in comparative width to height to weight proportion and skilful handling of letter detail can give a new look to the printed newspaper page. The 'widespread misconception that the types we use owe everything to writing and calligraphy' is demolished by S. L. Hartz, designer of the newst of book faces, Juliana.

Bookbinding is probably more stoutly traditional than any other section of the graphic arts but there are a number of designer craftsmen in England whose sensitive understanding and handling of their tools and their materials is giving new liveliness to craft binding. Their work is described and illustrated in an article by one of their number, Bernard Middleton.

Although other means of communication are threatening the pre-eminence of the printed word, there are still great printer-craftsmen, among them Giovanni Mardersteig, whose work at the Officina Bodoni in Verona is reviewed by Hans Schmoller in a special article illustrated by specimens which Dr. Mardersteig himself designed and printed specially for *The Penrose Annual*. An influential group of



restricts his material to the essentials of message presentation. Exploring an unfrequented avenue of design creativeness an article on the work of C. F. A. Voysey (by Peter Floud) suggests that he stands second only to William Morris in the whole history of English pattern designing.

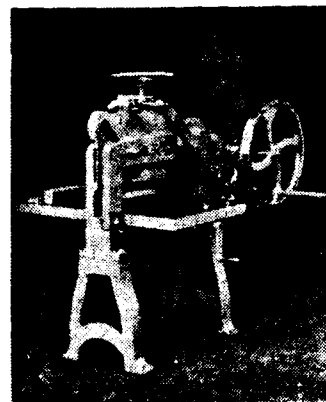
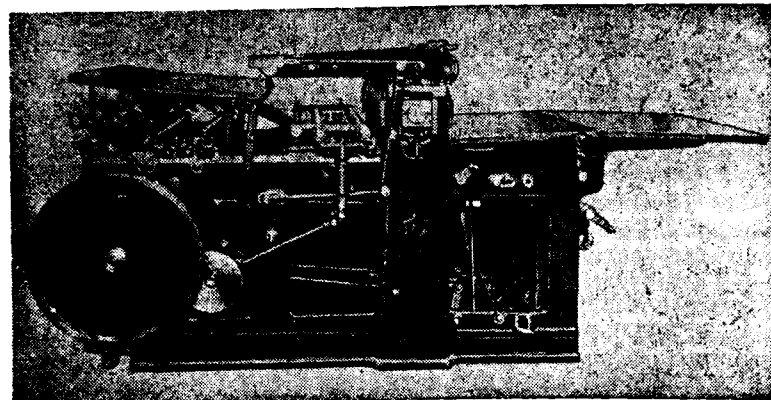
practitioners in various fields of the graphic arts meets yearly at a village in Provence; the practical results of their deliberations are reported in another article by James Moran. Many specimens of lively Continental design exemplify the artistic coherence which impressed all visitors to last year's exhibition at

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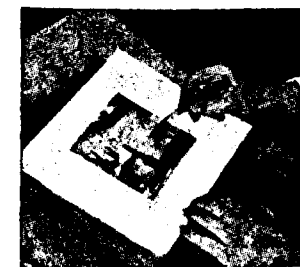
ALL MACHINES SOLD ARE BACKED BY SERVICING GUARANTEE

Lausanne, Graphic'57. including C. Rosner, the author of a reminiscent appraisal. Examples of the shortlived products of another branch of English graphic design are preserved in an article by Alec Davis on the business Christmas card.

The probable effect on English printing of national participation in the European Common Market and Free Trade Area is examined in a prophetic article by Lord McCorquodale, BFMP president, who points to the opportunity the future holds for British printing

given lively creativeness and efficient management techniques. A prior problem, where to recruit and how to train the industry's future managers is discussed in an article by a master printer, Noel Montague. A suggested solution is outlined in an explanation by Major-General C. Lloyd of a new scheme of management training to be established by the City and Guilds of London Institute of which he is Director. Students at British printing and art schools demonstrate their abilities in a series of

(Continued on page 6)



**Levelling up.
Hand Cut Overlays
and Edge Sheets**



IF A HALFTONE is to print with its full contrast and tone values, it will require adequate make-ready. This will have the effect of giving dark areas more impression and lighter areas less. However, before proceeding with the make-ready the plate must print evenly. Work areas are spotted up with tissue. To locate these areas, an impression is printed on a sheet and this print is placed on carbon paper, printed side upwards, the other side facing the carbon layer. The work impression areas which have to be strengthened are then marked. These marks will be traced on the back of the sheet by the carbon paper, and these areas can then be laid out step by step with two or three layers of tissue.

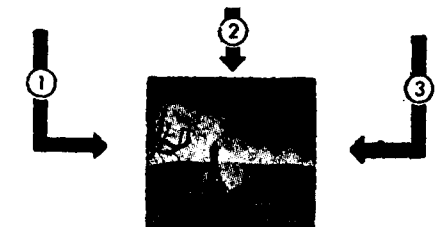
This simple levelling up which only serves to correct uneven areas of the plate is then printed on the make-ready base sheet. Later, the current make-ready (either mechanical make-ready or hand cut) is placed over this. Over the complete make-ready place a sheet of thin rubber. This prevents ink from being squeezed away from the screen area and improves the appearance of the print. A sheet of blotter is sometimes used, but it is not as effective as rubber. A few sheets of felt or newspaper can be used and will give better results than blotter, but both of these alternatives are inferior to rubber sheeting. On the next page the making of hand cut overlays is described. These are relatively easy to make and with some practice can be quickly prepared from four sheets of blank.



The dark areas of the illustration are cut out and pasted up on a pull made on a sheet of glassed board. Now the dark areas and margins are cut out accurately.

These cut-outs are also pasted on the printed sheet on which the darkest tones have already been printed. On this impression only the highlights are cut out, so that

they receive no little pressure as possible. This sheet is also pasted on to the printed sheet, so that differential impression is transmitted through the various layers of make-ready.



The complete make-ready, which incorporates all tone variations of the illustration, is now pasted on the make-ready base sheet. As before the rubber blanket over the make-ready and finally the top tympan sheet is clamped on all four sides. Remember that it is necessary to remove a few of the pasting sheets, so that with the levelling up and the make-ready, plus one sheet of the stock

to be printed, the total thickness does not exceed 1/2 inch of an inch. If an edge sheet is to be used, pull an impression on a piece of art paper in addition to the four pulls on the glassed board used for the overlay. After completing the overlay described above, turn the sheet of paper back to the edges of the print. The cut-out print is then mounted on the overlay.

A page reproduced from the book 'Hints to Pressmen'

HINTS FOR PRESSMEN

Messrs. East Asiatic Co. (India) Private Ltd. must be congratulated for having made available to printers the above technical book issued by their Principals. Ms. Schnellpressen-fabrik AG Heidleberg.

The book is very thorough and it is very handy and would be helpful in solving problems connected with Letterpress Printing

besides considerably improving the present quality of Printing. This book is a 'must' for all those connected with the Printing Industry.

The book is moderately priced at Rs. 5/8 and copies are available from the offices of Ms. East Asiatic Co. (India) Private Ltd., Madras and Bombay.

**BLOCKS!
&
PHOTOS!**

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PRINTECH

NEWS

PRINTECH Diary Page:
News of people, production and events in the Printing, Paper and Publishing World



Robert Brown Arnold

FAREWELL

On the occasion of the laying down the office as General Manager of the Southern Languages Book Trust, Madras, Sri G. V. Krupanidhi was entertained by the trust at a farewell dinner.

Sri Deshmukh who was present on the occasion observed that he knew Sri Krupanidhi as a journalist for some time. In recent years he had known him as the General

Manager of the Trust. He was personally fascinated by this experiment in producing worthwhile books in the languages at a price which the ordinary citizen can reasonably afford.

Major G. V. Pai, Comptroller of the Trust, besides his duties as such, is officiating as General Manager. He also takes his place as an ex-officio director on the Board of the Book Industry Council of South India.



Sri K. Govindarajulu, Chairman of the Southern Languages Book Trust paying glorious tributes to the work done by the General Manager, Sri G. V. Krupanidhi on the eve of his laying down the office.

Manager of the Trust. He was personally fascinated by this experiment in producing worthwhile books in the languages at a price which the ordinary citizen can reasonably afford.

Dr. Douglas Ensminger, representative in India for the Ford Foundation, said that he considered it a good fortune to be present on the occasion. He was glad that with the assistance that the Ford Foundation was able to render, the Southern Languages Book Trust has

WELCOME

Mr. Robert Brown Arnold (52) of New York recently arrived in Madras as Marketing Consultant of the Southern Languages Book Trust and would help the Trust to set up, with the active participation of Publishers, a widespread distribution mechanism of sale of books in large numbers, and provide technical assistance in distribution methods.

He has over 25 years of experience in the book trade and is entitled to speak with authority on many aspects

AUGUST 1958

23

of the trade. He was with Curtis Circulation Company, Philadelphia for nearly 20 years. He set up sales promotion for Bantom books and edited the Curtis Line, a house organ, for 2 years.

Till his resignation in January, 1958, as Sales Manager of Ballantine Books Inc. he has served as a Director and Vice-president of the firm.

Mr. Arnold feels that the problems facing book trade in South India are not entirely dissimilar from those that the U.S. has faced in the past. His rich and varied experience should prove useful to the trade in South India.

APPOINTMENTS

Sri V. K. Sriramulu, B.A., L.P.T. was recently appointed as the Principal of Southern Regional School of Printing Technology, Madras. He joined as an assistant Lecturer in the printing section of the Central Polytechnic and later worked his way up to the present office. He is one of the handful of Graduates who have taken



He is one of the handful of Graduates who have taken

the Printing Technology Diploma. Given the opportunities we are sure that he would build the *alma mater* second to none in this country.

Sri S. K. Thamba, a senior most member of the staff of the Printing section of the Central Polytechnic, Madras now the Southern Regional School of Printing Technology, has resigned recently after a long record



of service of thirteen years. He was the first Diploma holder who joined the *alma mater*. He was also the first Printing Technologist to become an author and publisher.

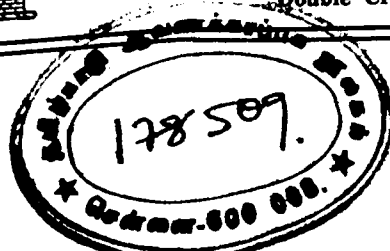
He has since joined the Southern Languages Book Trust as an Associate Production Officer.

Change of Address

With effect from 1st July 1958, M/s. John Dickinson & Co., Ltd., who were in Loan Square, Broadway, Madras for some years have shifted their office to No. 28, Rundalls Road, Vepery, Madras-7. Their Telephone Number and Post Box No. viz. 2023 & 77 remain unchanged.



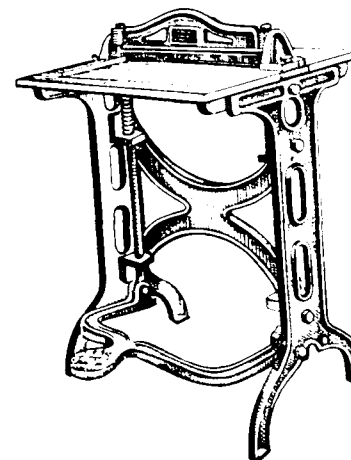
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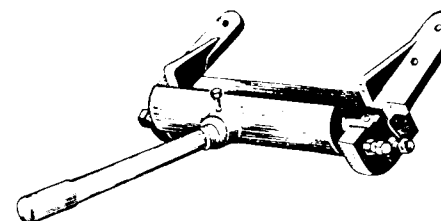


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The tables of highly polished wood are provided with side and back guages.

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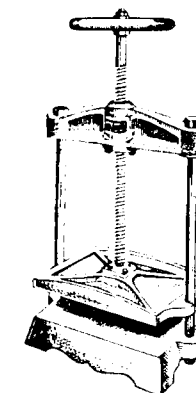
Sizes 18 and 24 inches



This machine is useful to Printers, Show Card and Calendar Makers etc. for fixing Metal Rims and Suspenders to Calendars, Maps etc. The Machine makes single and double folds.

HARD PRESS

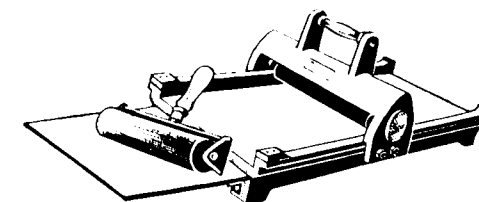
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அகர முதல எழுத்து எல்லாம்;
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11. 14 Pt. A. 14 Pt. B. 14 Pt. C.

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ஆதிபகவன் முதற்றே உலகு.

12. 14 Pt. A. 14 Pt. B. 14 Pt. C.

அகர முதல எழுத்து எல்லாம்;
ஆதிபகவன் முதற்றே உலகு.

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10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.