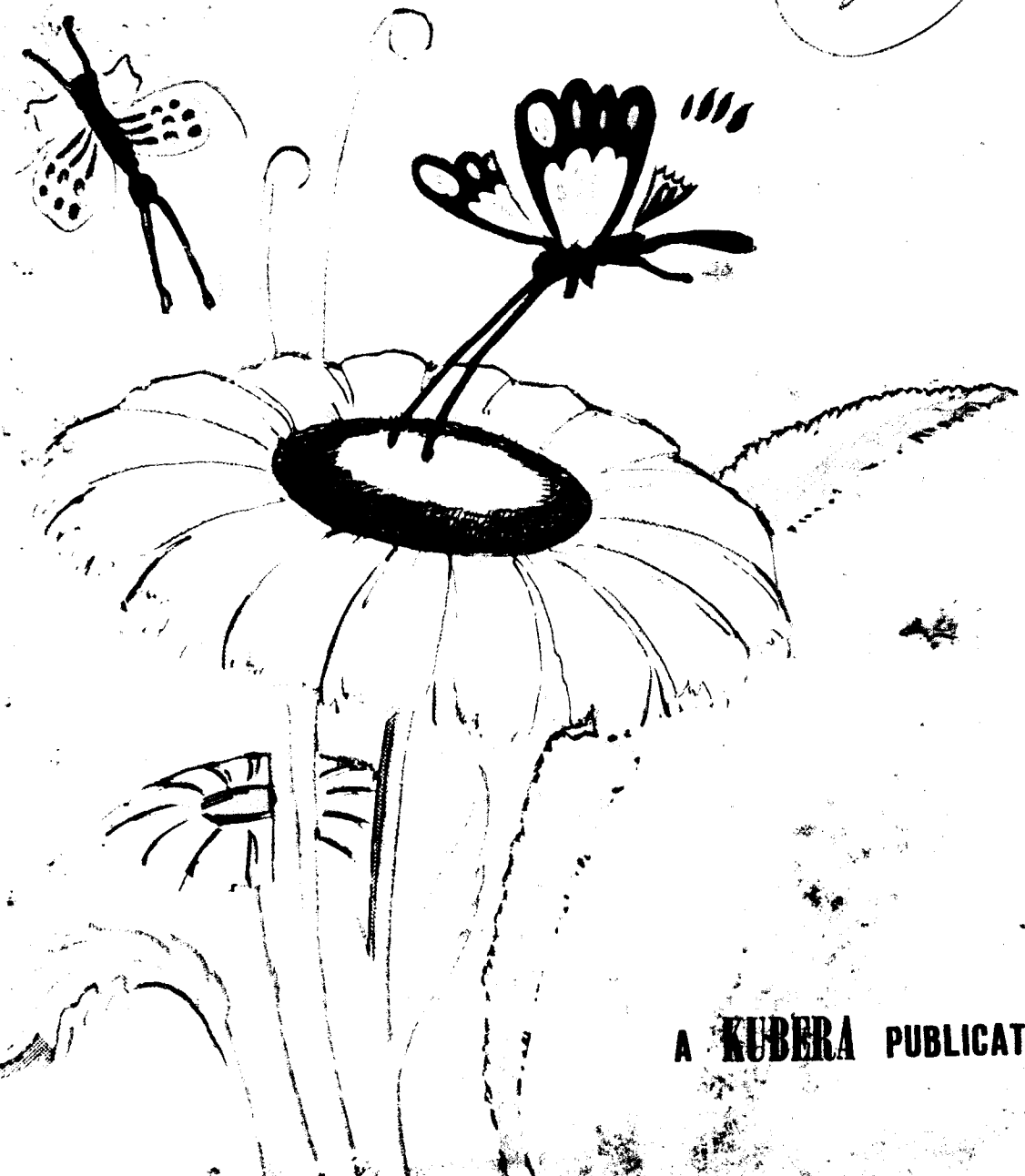


Printindia

A MONTHLY SURVEY OF THE GRAPHIC ARTS INDUSTRIES

2369



FEB. 1956

PRICE RE. 1

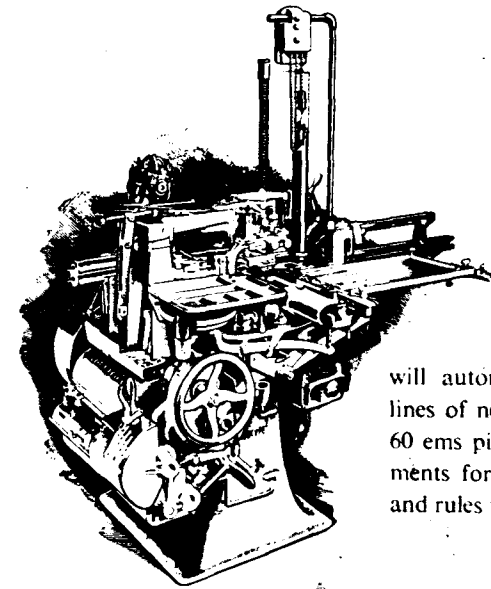
A KUBERA PUBLICATION

MONOTYPE

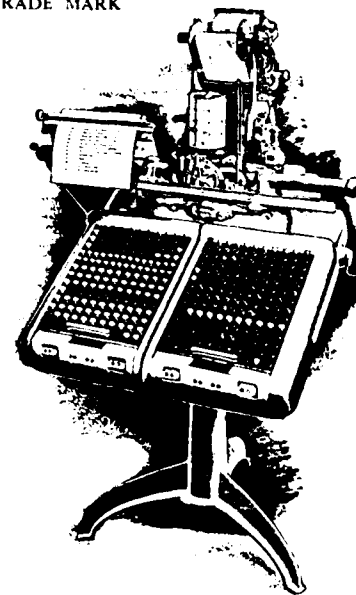
REG. TRADE MARK

Composing and Casting Machines

can provide all the solid setting, display type, spacing material, etc., that your composing room needs — AT MINIMUM COST.*



A 'MONOTYPE' KEYBOARD requires only a simple and rapid change of equipment for an operator to compose text matter in any European language—or any of the Indian languages listed at right below.

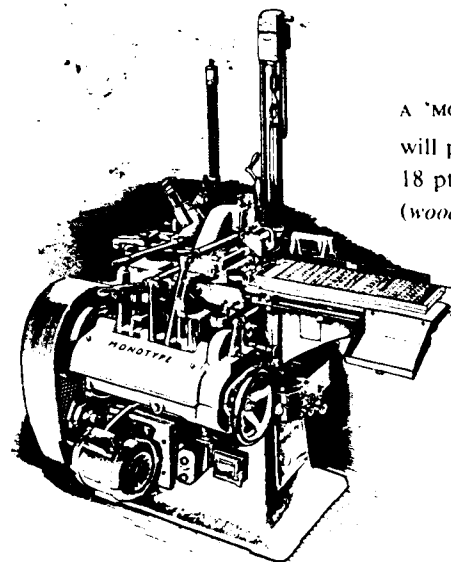


A 'MONOTYPE' COMPOSITION CASTER will automatically cast and deliver perfectly-spaced lines of new, solid single type to measures as wide as 60 ems pica. It can be fitted, if required, with attachments for casting Display Type to 36 pt.; also leads and rules to 12 pt.

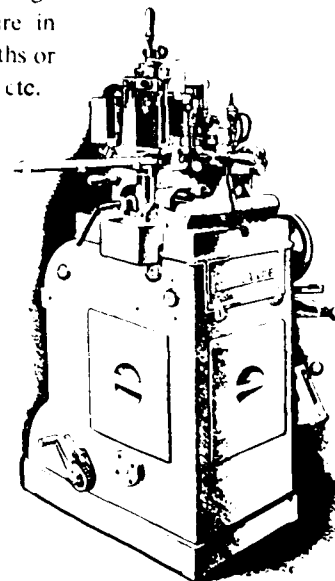
Sanskrit, Hindi, Marathi, Kashmiri, Nepalese, Bengali, Assamese, Gujarathi, Tamil, Telugu and Urdu can all be set with ease and at speed on 'Monotype' machines.

*Roman Type Faces are available on 'Monotype' machines in an unrivalled range of matchless designs.

Display matrices of many of them may be hired.



A 'MONOTYPE' SUPER CASTER will provide type up to 72 pt.; leads and rules from 1 to 18 pt.; single-unit and strip borders; dashes; quotations (wooden-cored if required) and block-mounting material; two-piece, type-high foundry furniture in continuous lengths or in fixed lengths, etc.



A 'MONOTYPE' THOMPSON TYPECASTER

will cast type from 6 to 18 pt. from 'Monotype' matrices: a wide range of famous type faces including eastern scripts, is available. Types produced from these matrices require no further operations on them as they are cast to a standard height.

Enquiries can be made to
The Monotype Corporation Ltd
8 Mission Row Extension
Calcutta 1, India

THE MONOTYPE CORPORATION LTD

SALFORDS, REDHILL, SURREY

Regd. Office: Monotype House
43 Fetter Lane, London, E. C. 4

The Editor invites articles on printing and allied industries for publication in the magazine. Articles should be of a good standard and should be neatly typed on one side of the paper only. Payment will be made after publication for the articles published as per the rates agreed upon by the Editor.

Estd. 1953

Printindia

A Monthly Survey of The Graphic Arts Industries

Managing Editor
TEMPORAU

VOL. 5]

FEBRUARY 1956

[No. 4

Business Manager
V. S. N. Murthi

Circulation Manager
Y. V. Rao

London Correspondent
F. & D. Brownlie

Roaming Correspondent
G. V. G. Krishnan



In this issue . . .

- ★ The Forgotten Galley Slave
- ★ Layouts and Lettering
- ★ Are You Still Setting Type by Hand?
- ★ Book Binding Craft
- ★ Crease-Free Printing
- ★ Preview of Leipzig Spring Fair
- ★ Barton Addresses Budding Printers
- ★ Paper Progress
- ★ From the Editor's Pocket Book
- ★ Regular Features

From Our London Correspondent
Pressroom Problems Solved
News & Views etc. etc. etc.

ANNUAL SUBSCRIPTION RATE:	
INDIA	Rs. 10/-
PAKISTAN	Rs. 10/-
CEYLON	Rs. 10/-
BURMA	Rs. 12/-
U. K.	£ 1
U. S. A.	\$ 5

Editorial & Publication Office:
PRINTINDIA
Proprietors
KUBERA ENTERPRISES Ltd.,
"KUBERA BUILDINGS"
21, Sunkurama Chetty St., Madras-1
INDIA
Grams: VASUNIDHI Phone: 3006

PRINTINDIA is Published
on the 10th of every month

FOR QUALITY BLOCKS

CONTACT:

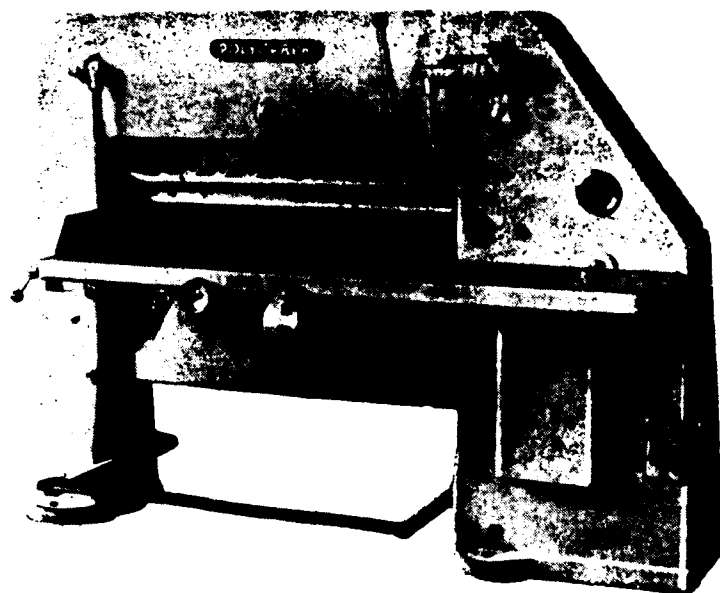
Messrs. NEWTON & CO.

THE LEADING BLOCKMAKERS OF MADRAS
80 WALLAJAH ROAD :: MADRAS 2
Phone: 86729

BUGRA 1956

Meeting-centre of the experts of the graphic industry from all over the world at the Leipzig Spring Fair from 26th February to 8th March, 1956

in Deutsches Buchgewerbehaus
Leipzig C 1, Gutenbergplatz 5-7



HIGH SPEED CUTTER MODEL APV 83

Produced by VEB Papierverarbeitungsmaschinenwerk PERFECTA, Bautzen

Cutting length: Model APV 83 83 cms. (32 3/4")
Model APV 106 106 cms. (41 3/4")

The comprehensive BUGRA-SHOW of the POLYGRAPH plants from the German Democratic Republic will demonstrate a number of latest appealing constructions of graphic engineering as well as substantial technical improvements on machines for paper and print.

DEUTSCHE WAREN-VERTRIEBSGESELLSCHAFT MBH

POLYGRAPH-EXPORT

Berlin W 8, Friedrichstr. 61/62

Cable Address: IMPEXTRANS Berlin

POLYGRAPH—Agencies:

The Printers House Ltd., New Delhi. The Print & Paper (Sales) Ltd., Calcutta 1. Western India Trading Co., Bombay. Manubhai Sons & Co., Bombay. A. Heptulla & Co., Bombay. Indo-European Machinery Co. Ltd., Bombay. Indo-Europa Trading Company Ltd., Bombay. J. C. Hui & Company, Calcutta.

EDITORIAL

THE FORGOTTEN GALLEY SLAVE

Have you ever witnessed a marriage without the couple? Or been to the Drama of Hamlet where the Prince of Denmark is missing? Or perhaps to a dinner party in a dry area, where water was forgotten? The recommendations of the Press Commission followed by legislation in the Indian Parliament for their implementation are exactly like the saying "the servant killed the boar, the master got the reward."

FREE PRESS

Officially there are no slaves in India. Theoretically India is Free from 'Forty-eight onwards. The Indian Press is part of our Free culture. The journalists constitute our press. And their grievances were legion. None knows to make noise more than the journalists. Their noises disturbed the slumbering politicians. Their voices had to be heard. The result is the weighty document "Recommendations of the Indian Press Commission." Minister Keskar took some time to implement them. The journalists thought: "Better late than never." The struggle of the reporter, the staff correspondent, the sub-editor, the photographer—all who prepare the news is thus at an end. But the struggle of the press-worker has hardly begun. The significant omission of the case of pressmen from the "Press" cannot be tolerated. The aim of this editorial is to pin-point the role of the pressmen who make the "Press". No dreaming minister, by any stretch of his sub-conscious, can think of producing a newspaper (or a press) without a pressman.

FETTERED PRESSMEN

Indian Newspapers are famous for good reporting, factual news, fair comment and sound entertainment. But they have also earned a name for readable printing, arrestive format and attractive advertisements. Now that the people who produce *news* have been justly rewarded, it remains for those who produce the *Newspaper* to ask and get their due. The radio commentator is able to reach the ear of the listeners directly. But the journalists who have unnecessarily dragged on themselves the adjective "working" cannot hope to reach the eye of the readers directly. Their illegible scribbles are to be transformed into legible print. The Cartoonist can but reach a limited

number with his original. The process engraver comes to his rescue and reproduces the same by means of blocks. The compositor and the line operator has to set laboriously the leisurely-typed copy and the makeup hand should form the matter into pages, the proof-reader has to correct the mistakes, the stereotyper has to take a matrix and the rotary operator has to print the five-figure copies to boost the circulation. The Job Foremen with layoutmen have to make the beautiful advts. which bring the revenue for the newspaper for which the journalists are working. The pressmen may not be *working* in the sense in which the journalists are, with shorthand notebooks, pencils, typewriters, carbons and manifold paper. No. The press-worker is *toiling* in the backyard of the finely lit newspaper office frontage where the journalists languish. Now that the working journalists have been heard, will they hear the toiling pressmen?

AM I NOT A MAN?

Apart from the fact that no newspaper is produced without the aid of a faithful band of pressworkers, there is the human side too. The top politicians talk glibly of an egalitarian society, a socialistic pattern, equitable distribution and other phrases which have no meaning for pressmen. How could these peers of wisdom ignore the pressman? Is he not a man and a brother of the journalist? Why is his role always under-estimated or taken for granted? Is he to remain for ever a poor-relation? In the glare of journalistic flash-lights everything else gets focused except the blockmaker's. The 48-point banner blares forth almost anything except the woes of the comp. who sets that line. It is an irony of fate that in the din of praise showered on newspapers the man who prints the newspaper is not thought of.

FREE THE PRESSMAN

The Pressman is not yet free. Therefore the Press of India is not *free* too. So long as the pressman is fettered by low wages, long working hours, absence of holidays, amenities and the rest which every decent human being is in need of he is not free. It is the pressman who made possible the newspapers and magazines during the freedom struggle of India. Yet, his struggle continues

while others are enjoying the fruits of freedom. It is time that the Ministry of Information and Broadcasting realise the importance of the pressman to the Press. His lot is worse than that of the journalist and needs improvement. A commission similar to the Press Commission should be constituted without delay. It should look into the conditions of work, pay, etc. of pressworkers in newspaper offices. In other words, a change of outlook is called for so far as the worker in the press is concerned. Until the recommendations of such a commission are implemented, the Press of India cannot be considered free. We can sing with the bard (although painfully) —

“Who is free when pressmen are fettered?
Who is fettered if pressmen are free!”

CITY & GUILDS AND THE GOVT. PRESS SUPDT.

For thirty years now the Central Polytechnic has been the centre for the examinations conducted by the City & Guilds of London Institute. Many young men have passed out and have qualified in the trade. Needless to say, the C & G certificate is a prize coveted by every student and a passport for good jobs. The Govt. Press, Madras have been kind enough to allow the practical examinations to be held in their factory. But, for some reason or other this year the Superintendent, Govt. Press failed to indicate his willingness to give such permission. The result is that dozens of

students who went to the Central Polytechnic with application forms and fees in their hands were refused admission to enter for the examinations. Reason: The Supdt. Govt. Press has not thought fit to conduct the practical examinations in Machine Minding for the candidates this year. The Department of Industries and Commerce should find out the reasons for such a backward step in the annals of the City & Guilds Examinations in Typography. The reasons if investigated are likely to be very illuminating not only to the Director of Industries and Commerce but also to the Hon. Minister for Public Works under whom the giant State undertaking called the Madras Govt. Press is functioning. It is surprising that the eccentricities of a Supdt. (Govt. Press) can put a stop to accepted official practices in this State. Many candidates have now to waste a year, as the information not to conduct the Machine Final Examinations came very late, on the last date for paying exam. fees. Surely, the students deserve a better turn.

In stark contrast to this, the Supdt. of Calcutta Govt. Press allows ample facilities including materials and equipment for candidates appearing for City & Guilds Exam. in Printing. Similarly the Govt. Press, Mysore afford all conveniences for the same. It was left for the Madras Supdt. to act otherwise and deny the poor boys, examination facilities. The reasons which led to such an unusual decision are worth investigating.

Announcing

All India Printers' Conference & Exhibition 1956 Special Number

OF

PRINTINDIA

to be released for sale on the 10th of March 1956

An authentic survey of the historic ALL INDIA PRINTERS' CONFERENCE & EXHIBITION being held at Allahabad...Specially covered for PRINTINDIA by our correspondents...Profusely illustrated...Entirely printed on Art paper...

**A Publication of Perennial Interest for
Those Engaged in the Graphic Arts Industries!**

A limited number of advertisements will be accepted from firms of repute for publication in the Special Number.

FOR PARTICULARS PLEASE CONTACT:

PHONE 3008

KUBERA ENTERPRISES LIMITED

PUBLISHERS PRINTINDIA

GRAMS: VASUNIDHI

'KUBERA BUILDINGS' 21 SUNKURAMA CHETTY STREET, MADRAS - 1

LAYOUTS and Lettering

By

SRI RAMAKRISHNA NARAYANAN

In this monthly feature our Layout Expert gives first hand constructive criticism of advertisement copy, arrangement, choice of type and make-up. All the leading Advertising Agencies have, it is worth noting, come forward to co-operate in our new feature by making use of these columns every month. If your advert. doesn't pull, send it to us: we shall magnetise and return it!

“Whatever is worth doing at all,
is worth doing well.”

New year has dawned. There has been no dearth of “Happy New Year” advertisements in our newspapers and magazines. Talking of newspaper advertisements, most of them were plain stuff, some were quite good enough, but a few made me sit up and take a careful look. But the following were the ones which make me (and I hope you too) look at them again and again.

WHEREVER YOU GO

Now, there is the one having an array of smokers of all sorts and odd shapes, bespectacled, moustached, hatted and hooded, their hairs groomed and waxed, or plain grizzly or balding—in short a cross section of the human kingdom forming a framework for the Good-wishes for “good smoking wherever you go.” The deliberate omission of the product lends dignity to the advertisement.

Some folks may be led to think that here is waste of advertisement space. Whoever has heard of paying for space in a newspaper and not even putting a small line carrying the name of the advertiser! In this businesslike world none will be willing to pay something for nothing. Therefore the words “wherever you go” are there. These

have an intimate association (as the smell of Gold Flake to the smokers) with the particular brand of cigarettes.

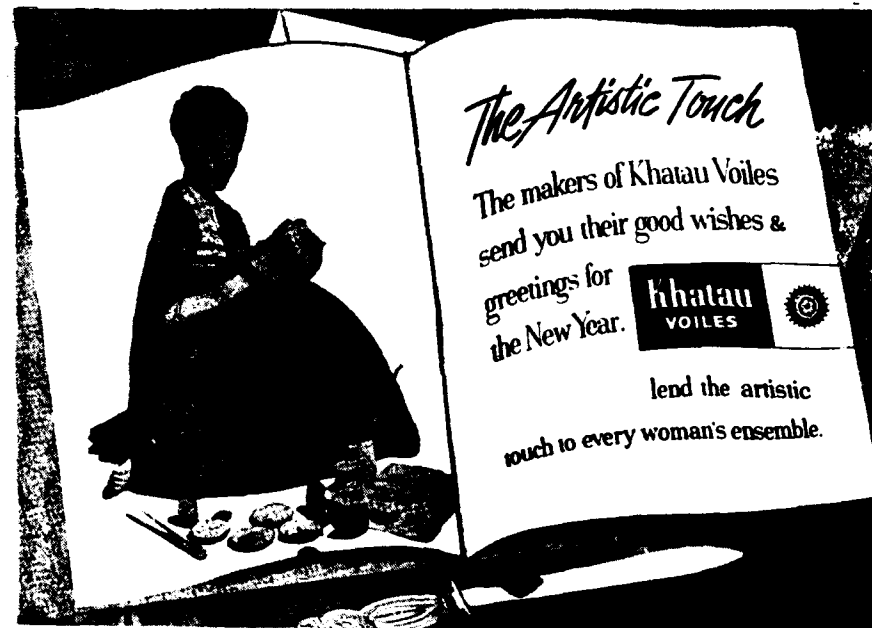
GRANTS' GOOD SHOW

This composite piece containing all the characters such as the Judge, Explorer, Connoisseur, Pilot, etc. (used separately during the firm's publicity campaign on former occasions during the year) with the letters in brush script is a marvellous piece of advertising. We congratulate the Grant's



FEBRUARY 1956

5



Advertising Agency of Calcutta for this new year fare of excellent display of Imperial Tobacco Co. Ltd. Such things are few and far between. And whenever these occur it is the business of this column to take notice of them.

SISTA'S HIT THE HEADLINES

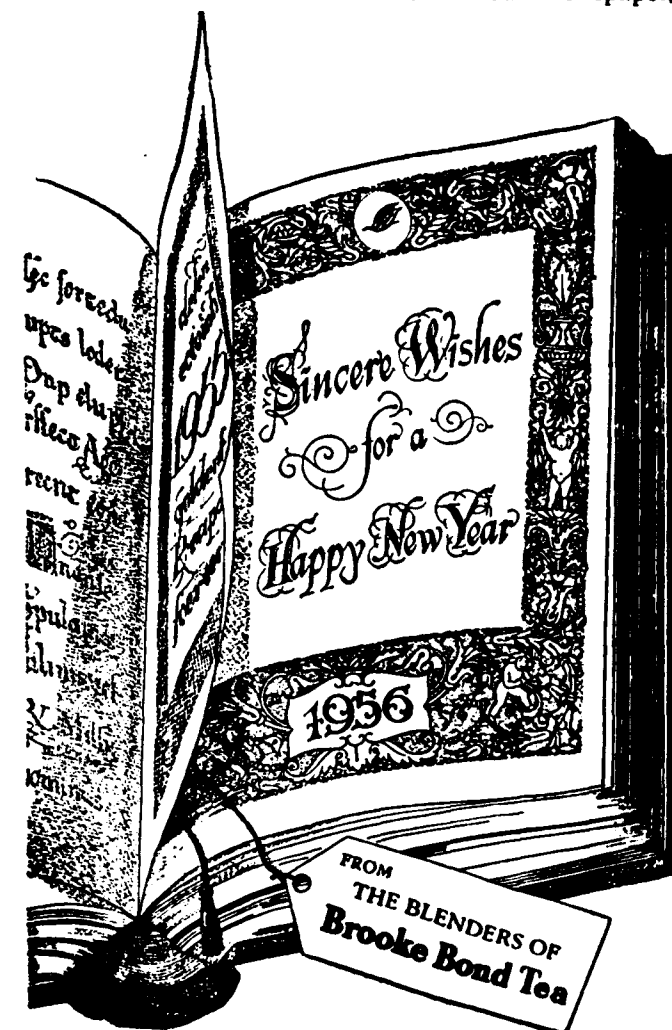
Khatau Voiles have earned a good name in the market. But Khatau Voile Advertisements have gone one step further: they have endeared themselves to the people. Well known for their lavish advertising space and proper usage of the space so bought, the half page under review is a striking piece well captioned "Artistic touch." All over the advertisement, there is ample evidence to denote the artistic touch. As witness the picture of the lady (presumably attired in Khatau Voiles) painting with her delicate hands a vase, paint and brushes lying in artistic array around her. The curved type lines harmonize with the shape of the whole display which forms a recently-received New Year greeting card. The paper cutting knife and the envelope in the background complete the new year atmosphere. There is not only the artistic touch in this splendid piece, but also the artistic feel. The usually remarkable advertisements of Sista's, Bombay, have hit the headlines once again.

WALTER THOMPSON'S SUPERB PIECE

A book and a book-mark would have never suggested as a suitable idea for the presentation of New Year Greetings. But these are the things that go to make an impressive design in the third piece

under review. A nicely bound volume, three well decorated leaves in view, a book-mark parting the book at the proper page present a welcome change to the monotony of wellworn ways of greetings that greet our eye in our papers.

The wishes relating to the past year are visible in the half turned leaf, in shaded perspective lettering. The current year's greeting is in calligraphic script with flourishes and the figures 1956 are in a box formed by the borders. The tag at the bottom is a gentle reminder of the people who have issued the greetings, i.e. Brook Bond Tea. The lettering matches the ornamental border very well and the whole stands out as the best among greetings by advertisers of this season in our newspaper.



Prepared by J. Walter Thompson, this superb example of advertising design is impressive without being loud, well decorated without being gaudy, is humble with a dignity of its own.

NEW YEAR SAYING

These three advertising pieces prove the saying given at the beginning of this article which will bear repetition: Whatever is worth doing at all, is worth *doing well*. Let this saying sink into every mind so that whatever comes out creatively will have a permanence, characteristic of all things done with care, interest and sincerity—which mean things done well.

However, there is another angle to these new year pieces. The majority of them wishes best only for their clients and customers.

In the land of Buddha, Toleration and Panch Shila, this is rather a very narrow and niggardly way of presenting one's good wishes. Even looking at from the purely business point of view, to convey good wishes only to a section is rather indiscreet. For yesterday's strangers may well be tomorrow's customer's or clients. In the international field we see erstwhile enemies are the thickest friends. This equally applies, if not with greater force, to the world of advertising. As this super-selfishness has always pestered me, I put it that "A Happy New Year to All" will be a much better greeting and more happily worded, than the one which dishes out wishes only to your customers and discriminates between man and man. At the beginning of the year at least, every one can well afford to

be a bit more charitable towards all!

It is worth pointing out that the above three advertisements have scarcely mentioned their own name and have not singled out (in their wording) only a section to receive their good wishes. This is yet another point which adds to the uniqueness of these three which stand out head and shoulders above the common advertisements of the market-place.

If a motto is required for those in the Graphic Art Industry none better could be found than the one set out at the beginning of this article. The tendency to somehow get done with the job is uppermost in our mind with the result that most of our display cannot bear a second look. The thought of every job printer should be to do everything he does, well, and not to leave any room for further improvement. At least the ideal of perfection should be there.

Statistically, our newspapers are marching ahead in circulation but none can say that our readers are choosy as to which newspaper they should read. It is up to us printers to educate the reader by improving the get-up which means betterlooking newspapers.

Gliding to Greater Glory

NATIONAL is the Nation's own and it has been marching with the Nation. Thanks to the continued support of the public, our patrons, our policyholders and all our workers we have concluded the year just over with conspicuous success.

NEW BUSINESS IN 1953
Over Rs. 12 Crores
Increase of Rupees Two Crores over 1952

President:
LALA LAKSHMIPAT SINGHANIA

NATIONAL
INSURANCE CO. LTD.

Head Office: 7, Council House St., Calcutta.

MADRAS BRANCH:
362, Netaji Subhas Chandra Bose Rd., Madras

Grouped Units

Voici quelques uns de ces bas - qualité Innovation que vous apprécierez tant.

Jauge 54 - 15 dentiers, semelle renforcée, couture ton sur ton.	Garantie Nylon de France.	39.-
Jauge 66 - 15 dentiers, semelle renforcée, couture ton sur ton.	Garantie Nylon de France.	49.-
Jauge 51 - 15 dentiers, indéformable, pied renforcé.		59.-
Jauge 51 - 10 dentiers, indéformable, semelle renforcée.		59.-
Jauge 60 - 15 dentiers, indéformable véritable, pied et talon renforcés.		69.-
Le fameux bas S.T.R.E.T.C.H. Jauge 60 - 15 dentiers. Pied renforcé. Imperméable toute la journée.		79.-

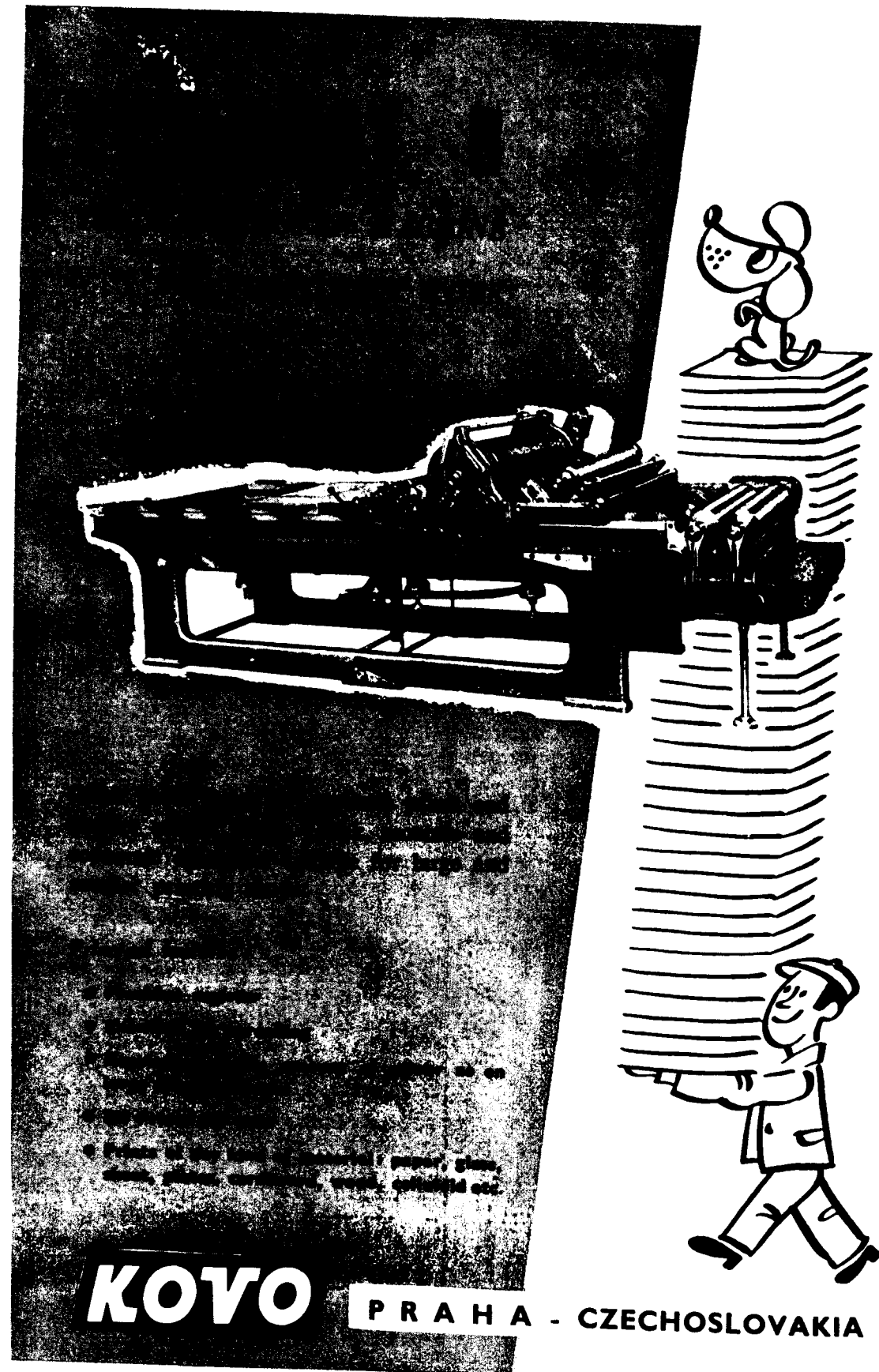
TOUS CES BAS, ENTièrement DIMINUÉS, SONT GARANTIS au CHOIX ET EXISTENT DANS TOUTE LA GAMME DES BÉGES A LA MOUL. EN TAILLES 1/2 à 1 1/2

à l'Innovation

Bruxelles - Ixelles - Anvers - Liège - Verviers - Gand - Oostende - Bruges - Charleroi - Namur - Courmayeur - Knokke

Picture Appeal

(Continued on page 27)



KOVO P R A H A - CZECHOSLOVAKIA

Are You Still Setting Type by Hand?

By
SRI P. A. SRINIVAS

In these days of speed, labour-saving devices, streamlined machinery, if you are still setting by the time-worn, slow, monotonous method, i.e., by hand, we are sorry. This article, second in the series, shows how it is possible to set at a faster, better and finer way

Machine has always thrilled mankind. But no contrivance has thrilled him so much as the line composing machine. The inventive genius of the 19th century when directed in the channels of typesetting resulted in the great invention of the Linotype Machine. The year was exactly 70 years ago today. The place was the United States of America and the man was Ottmar Mergenthaler, hailing from Germany, the land of inventors. Earlier, five shorthand writers in 1876 conceived a machine far from the likeness of the present-day Linotype. The type-composing machine no doubt had a keyboard indented on papier mache by means of steel characters. The crimped and spaced papier mache pieces were formed into paste-up stereotypes, that were cast from pages made up from these characters. Not only this method, but many others after it, failed. Many clever men toiled for a number of years before inventing the Linotype. A lot of capital had to be spent before the machine was made commercially suitable for the trade.

NOT A TYPE-SETTING MACHINE

The Linotype is not a type-setting machine. It has no store of types nor does it set any types for that matter. In fact, it has nothing to do with single types at all. The Linotype is a line-casting machine: it casts lines of metal called technically "slugs." These slugs can either be used for direct printing or for taking stereo matrices for dupli-

cating as in the case of newspaper rotary printing. It is a useful tool in the hands of an able operator. Its product not only equals those of others in that class but even excels for certain categories of work. The typographic superiority of Linotype setting and mechanical accuracy of the slugs and their printing quality are now well known to every printer of repute.

EASY IDENTIFICATION OF PARTS

An ingenious system for naming parts has been developed by the manufacturers. These names are made readily intelligible for the student, the craftsman, the dealer, the manufacturer—all concerned with the Linotype. As the Linotype is a machine having numerous parts, a simplified system was called for. Accordingly, the name consists of the main part first, followed by the descriptive sub-parts



OTTMAR MERGANTHALER
Inventor of Linotype

in proper order. Thus every part is designated with utmost clarity and absence of confusion. A very small part may have a very long name, just as a very small town may have a long jaw-breaker as its name. Let me treat you to a sample of this: a small bracket is called "vise jaw, left-hand, adjusting rod locking pin lift bracket." It can readily be seen, that in spite of its length, the foregoing clearly describes and designates without confusion the particular part, easy for location.

TROUBLE-FREE MACHINE IN A TROUBLESOME WORLD

People may be led to think that a machine having so numerous a number of parts may have complicated adjustments and attendant troubles. We have to remind such people of the saying of an eminent philosopher who said: "My life has been full of troubles, most of which never happened." Under careful operation and maintenance, troubles may never occur at all. Although none recommends operation of Linotype machines by persons ignorant of its mechanism and working, it is a fact that in many parts of the world hundreds of Linotypes are run by persons who have had only a few weeks' training. Some machines have been erected and maintained by mechanics who have had not more than six months' training. This is a compliment to the simplicity of the machine which stands in stark contrast to other types of complicated composing machines which confuse even the experts.

SEVENTY YEARS OF IMPROVEMENT

The use of Linotype began more than half a century before. The first Linotype was installed in the plant of the American newspaper "New York Tribune." That was

in July 1886. Today, thousands of printers, publishers and newspaper printers all over the globe use the Linotype machine. It has keyboards in many languages. A Madras Tamil daily uses Linotype in addition to all the English dailies. On a modest estimate, the City of Madras alone has over a hundred Linotype installations. The Cities of Bombay and Calcutta have at least more than twice the number each.

We said that the Linotype should be termed a composing rather than a type-setting machine. The slug is the most economical type unit. It is a completely set, spaced and justified line, all by machine. It is cast in one piece. Several distinct and simultaneous functions mark it as a superior machine. The operator manipulates the keyboard (which by the way is not arranged like the typewriter keys, but in a far better way to suit the convenience of the operator) which releases the matrices from the magazine where they are held ready.

THE MATRIX

Small brass pieces having the letter or mark indented on one of its narrow sides are the matrices. They circulate round the machine from the magazine or brass box where they are kept, to the assembler where they are assembled, to the vice jaws where they are cast, to the distributor bar where they are distributed back into the magazine grooves or channels. The distribution of the matrices into their respective channels is the most interesting. Each matrix has a distinct teeth combination the reverse of which is found on the bar over the channel. The matrix moves on the bar being plied by the screws on the sides and lose grip when the combination agrees with the ones on the bar. Thus they are put back mechanically into

the respective channels ready for use once again. Distribution by hand is thus eliminated. The operator can attend to setting alone—all the other operations being attended to by the machine automatically.

MAIN WORKING PARTS

There are four major sections on the machine which perform distinct operations: The first is the magazine which contains the characters. A set of matrices is smaller in number than a fount of type. This is due to the fact that matrices keep on circulating after casting. The magazine is light, compact and can be handled by the operator with ease. By changing magazines, it is possible to produce a variety of type faces, sizes and their variations. The normal magazine has 91 channels, one for each character and two for the letter "e" this being the character most frequently used in the English language. For the same reason the lower case "e" box of the hand compositor has the largest capacity. The magazine serves the same purpose as the case of the hand compositor.

The Keyboard consists of 90 keys arranged in 6 rows of 15 each. Vertically it is divided into three

sections each coloured differently. The first represents small letters or lower case, the second small capitals, figures and punctuation marks and the third has the capitals. The operator at the keyboard has complete control of every character and every function of the machine. He need merely operate the keys—the rest is done automatically by the machine. The Casting mechanism consists of an electrically heated (or gas heated) metal pot with a plunger or pump which pumps metal through a mould opening. The mould wheel may have 4 or 6 moulds, any of which can be commissioned.

The distributing mechanism consists of a box, a bar and screws which help in taking the matrices back to where it came from. Millions of matrices are in use today all over the world. Matrix is a precision piece of equipment. About 70 exacting operations are necessary to manufacture it to standard measurements.

ADVANTAGES OF SLUG-SET MATTER

Six lines can be assembled, cast and distributed in a minute. One

(Continued on page 29)

Anything in Blocks

TRI-COLOUR, HALF-TONE & LINE

ALSO

COLOUR BLOCKS

FROM

COLOUR TRANSPARENCY

..... WRITE OR PHONE

Estd. 1890 Phone: 3202

M. C. APPASAWMY CHETTY & CO.

14, JONES STREET : MADRAS-1

Book Binding Craft

By

SRI L. RAGHUPATHY

Anything not printed is not a book; anything not bound is not a book too. The binder's art that makes old books new and new books newer is discussed in this article. The ancient craft of binding has become a profession and an industry also

The numerous operations in book-binding, the tools used at each stage, the purpose of each process, all afford very interesting means of understanding the work of the book-binder. Many are attracted to this craft and it has been proved that with interest and correct information every one almost, can become fairly good binders.

TWO CLASSES

There are two kinds of books. One is used for reading and is generally printed. The other is used for writing and is usually blank or ruled. The bringing together of leaves already printed is called "Letterpress Binding." Securing blank or ruled sheets to make a note-book, account book or ledger is called "Stationery Binding." The latter is also called Vellum Binding. This comes from the animal parchment called Vellum which was used much in ancient days for binding account books. The product is still well known for its toughness and durability over other covering materials.

FOLDING THE SHEETS

We should understand the fine distinction between the following three terms: Sheet, leaf and page. The first is an unfolded paper, printed or unprinted, with one page or many pages, both sides printed or one side printed. A leaf is of two pages and a page is half or one side of a leaf, and a sheet of a book is of four pages. Several sheets

make one section. A book is made of many sections. The minimum and maximum number of sheets that form one section depends upon the thickness of the paper used. Too thin a section will increase the number of units to be sewn and the labour therefor. The shape of the bound book, its back etc. will be altered by thin sections. On the other hand, too thick a section will weaken the sewing and the sheets have a tendency to escape from the binding. This results in what are technically known as "starts" or uneven foreedges. Four sheets are the absolute minimum required for a section while the maximum is eight sheets. To ascertain this and other factors, the binder prepares a specimen or dummy copy. He binds it with the same substance and material, in the proper size and comes to a correct decision on all matters of binding that particular work with the help of the dummy.

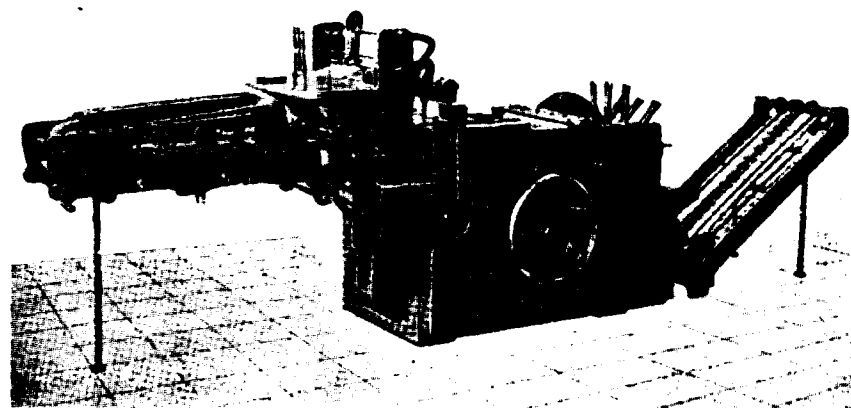
As soon as printed sheets are received from the machine department, they are not yet ready to be bound. They should dry, as otherwise the ink may transfer to the next sheet and ruin the print. The first thing is to count and check whether the number of copies has been correctly received. After drying, the sheets are ready for folding. Sometimes it may be found necessary to cut the copies into two before starting. When the same forme is used to print both sides of the paper, the sheet requires to be cut into two.

Folding is the operation of bringing the sheet to the size of the proposed book. The number of folds varies according to size of printed sheet and the sub-division the printed leaf bears to the same. A folio is folded but once, a quarto twice, an octavo requires three folds and a 16mo needs four. A folding stick shaped like the weaver's shuttle is used for rubbing the sheets to crease them into a proper fold. Bone folders or wooden ones are used for this purpose.

A sheet can be either folded to paper or to the print. The first is done by bringing the edges of paper together and folded. The latter is the more correct way in which the position of print on the pages are brought one over the other during folding. This will make margins equal. For ordinary jobs the easy way of folding to paper will be found enough. There is the likelihood of a crease developing at the third or fourth fold. This can be avoided by slitting open the top fold. This is technically termed "bursting the bolt." As air escapes through the opened bolt, no crease can now develop. Too thick a paper causes slow folding as well as creasing. In western countries, women are generally employed to fold the sheets. About thousand folds per hour is all that can be done by a fast hand. The average speed is much below this figure in India.

FOLDING MACHINES

Book production runs to millions and hand folding cannot equal this huge output. Hence folding machines are increasingly used. Popular makes of folders are: Baum folder, Dexter, Camco, Brehmer, Cundall etc. The machine folds at a speed four times that of the fastest folding hand. Automatic feeders help this output. Each folding machine requires a



Folding Machine

particular kind of type page arrangement technically termed "imposing." Therefore, close co-ordination between departments is called for to get good results. The same lay edges may be used for printing and folding machines to ensure proper register. The sides are marked with a colouring for this purpose. Folding machines fall into two classes. The plate or buckle folder and the knife folder. Some machines combine both these principles. For right angle folds the knife folder is suitable while for fan fold or parallel fold the plate folder is considered good. One or two sheets at a time can be simultaneously fed. Some folders have slitting, perforating, heading, cross combing and other devices fitted to them. Cleveland machines are all buckle-type folders. In this, diagonal rollers are used on the feed table and cross carriers. These are better than tapes and right angled rollers. The size and number of fold plates decide the number of folds that can be done on a particular model.

Any of the following three feeders are available on the Cleveland: Friction continuous feeder, single board air wheel continuous feeder, double board air wheel continuous feeder. Older models had suction pile feeders, which have now been discarded in the later types. The

friction continuous feed consists of a slanting hopper. On its front edge is a rubber feeding wheel revolving against a lower wheel. The sheets are fanned out and placed in the hopper with the top sheet foremost and coming between the sheets. These sheets are stripped singly from the pile and delivered to the diagonal roller feed table. A caliper trips to stop the feeder when more than one sheet passes through.

The continuous feed requires the sheets to be fanned out and loaded on the flat extended board, top sheet foremost. The revolving suction air wheel picks up the top sheet carrying it forward to the feed table. As the air wheel pulls the sheet forward, two feeder drive wheels direct the sheet to feed table. A series of glass or metal balls keep the sheets in register and the fold rollers fold the sheet.

WAREHOUSE

Medium-sized printing houses can afford to keep a place for storing paper and boards. Bigger establishments keep a warehouse for printed sheets and one for non-printed stock. If there is no proper place for storing printed paper, there is the risk of spoilage of the same. Racks well spaced, with shelves of suitable height, of various sizes should be available.

Stacking on the floor is not advisable. The finest printing if badly handled will not emerge as a good book. Hence the importance of the warehouse.

FORME, SECTION AND SIGNATURE

Each page of a book is not printed singly or separately for obvious reasons. A group of pages is printed at a time on a larger sheet which is then folded into the size of the page. A group of type pages is called a "forme." These pages when printed form into a "section." The signifying letter or figure found at the bottom of the first page of each section is called a "signature." It helps the compositor for stone corrections and the machine man for positioning the forme on the printing machine and backing the sheet. But the binder is helped to a greater extent by the signatures than the others. While folding, these letters or figures show the first page of the section. While gathering they help in arranging them into proper sequence. While checking or collating the signatures, quicken the process as one page only instead of a number of pages needs be checked.

GATHERING

A book consists of many sections. These have to be brought together in serial order. Bringing the various parts of a book together is "Gathering." The sections are placed around the edges of a table and the men walk round it collecting the sections in serial order. A revolving table is used with advantage as it cuts the travel short. Further a number of people also may do the work sitting at one place. Gathering from the last section by placing one on top of the other is easier than beginning from the first. Both the folding

Continued on page 33

Crease - Free Printing

By
"DAWSON"

Creasing is a defect not new to printers and Dawson is an author not new to our readers. He had already dealt with the problems of bad register, slur and set off in these pages. But he is at his best in the article that follows

Wherever thou art, thy shadow is there too! This may be true for other things, but not for printed matter. Whenever you see a shadow under the printed line, please call it a slur. Don't stop with that. Learn why it came there and how to prevent it coming again. This in technical language is "Slur-free printing." In other words, matter that is printed sharp, clear and readable.

BIRTH OF A SLUR

Like all pressroom problems, the germs of slurring may emanate from—(i) Bad forme, printing surface or block, (ii) Bad packing or the intervening resilient surface between the printing surface and the impressing surface. (iii) Bad printing machine, i.e. defect relating to mechanical deficiencies or imperfections, bad adjustments. Let us examine one by one the various causes.

WHAT IS CREASING

In many respects creasing is a defect similar to slurring. Creasing is the folding or crumpling of the printed sheet due to some defect in the feeding, impression or delivery mechanism. If slurring is a distortion of impression at the leading or leaving edge of the print, creasing is a distortion of the stock. Such creased paper is unfit for delivery or for binding in the case of book work. Sometimes it is found the impression is on the creased portions with the result the stretching of the sheet will lay bare

some non-printed portion where the crease had formed. It is not uncommon to cut creased stock and then find that some sheets project beyond the cut due to the crease in those sheets.

CAUSE OF CREASE

Creasing does not occur but is caused. What causes it is not very easy to find out. Even experienced machine minders are at a loss to locate the exact cause of the crease which develops during printing. But the defect called creasing is always associated with "air pocket." These air pockets are formed especially in matter with borders. In rule borders they are common. In type borders and ornamented work they are not uncommon. The explanation of the crease is that air is trapped inside the borders. When the air tries to escape, the paper is creased at the time of impression. But air-pockets are not the only reason for creasing. There are other reasons such as bad adjustment of grippers, auto feeding parts, etc.

THE FORME

Pre-makeready has been conceived with a view to banish all troubles including creasing. The importance of proper preparation of the forme or printing surface is stressed under pre-makeready. The aim of pre-makeready is to reduce machine stoppages, wastage of material etc. Too high a forme, rocky mounts of plates, formes that are low to paper, badly planed

formes lead to creasing. Creasing also results from bad lock up, crooked furniture and a springy forme. All these points need checking to avoid a crease. If the forme is perfectly level and of proper height, is properly planed and all the materials used in the forme are true and square, then no crease need be feared. A perfect forme is a good beginning to and is half the job of printing.

THE PACKING

Packing or dressing of the impressing surface is resorted to, to help with the printing. But more often it is found to be in the way of good printing. Baggy packing, unsuitable packing, loose packing, overlays buried out of register with the forme, patching on the top sheet interfering with smooth setting of the sheet on the impressing surface are some of the causes of creasing. When a number of sheets are used instead of a few stouter sheets for the packing, creasing may develop. In the case of cylinder machines, under or over-packing makes the cylinder to run out of harmony with the type bed. A drag on the printed sheet is the inevitable outcome of such a state of affairs. The cylinder should always run in unison with the bed. This is possible only when the correct amount of packing is carried on the cylinder surface. Packing can be tested with the help of the cylinder collar and in no case it should exceed the height of the collar. Very few machine minders in India measure the thickness of the dressing before running the machine. Worn bed bearers, worn brass cylinder bushes, the shaft of the cylinder not contacting the journals are other causes of creasing. It is imperative that the dressing should be proper and not spongy if we are to avoid creasing (and even slurring). Crumpled top sheet may also cause

a crease. On cylinder machines, a dampened top sheet will sit snugly and prevent troubles. Wherever there is a tension bar for pasting the dressing, all the sheets should be securely pasted and the top sheet pulled taut. A tympan manilla specially impregnated with oil will serve the purpose.

THE MACHINE

The tension of the grippers should be uniform. When the gripper bite is more on one side than on the other a drag will develop leading to a crease. In other words the hold of the grippers on the sheet that is being printed should be uniform. Whenever it so happens that some grippers loose hold of the sheet, crease is bound to develop. Indeed the usual cause of creasing is bad adjustment of grippers on cylinder machines and frisket fingers on platens. It is a safe rule to test the tension of grippers and ensure that they are uniform all along.

FEED-BOARD

On stop cylinder machines, the rising and falling of the feed-board has much to do with the avoidance of creasing. The space between the edge of the board and the cylinder should be equal throughout. Proper adjustment of the lifting mechanism is necessary for preventing a crease. This defect is similar to bad adjustment of grippers as both result in a drag on the sheet.

Feed-board adjustment has something to do with creasing on a two-rev. machine also. There the height of the feedboard is important to avoid a crease. Whenever the lay tongues have been moved so that the board is not set, the crease will be found in line with the lays on the feed or delivery side. Between the lay tongues and the cylinder there should be a space

enough for two sheets. When the lay tongues are pushed out of shape they are unable to follow the shape of the cylinder. Thus they allow the paper to slide off. A buckle is caused culminating in a crease. Therefore on a two-rev. machine the feed-board should not be too high and the lay tongues need proper setting in relation to the feed board.

SHEET CONTROL

The sheet control mechanism comprising of sheet bands or cylinder bands that hug the sheet to the cylinder, the cylinder brush, etc. which are special features of the two-rev. machine may cause creasing due to bad setting. Tapes should be just tight enough to keep the sheet in contact with cylinder. When sheet bands press hard against the sheet, crease develops. If the cylinder brush does not have even tension along the sheet, it too causes a crease. A strip of paper may be placed at each end of the brush for setting it. When the cylinder is on impression it should be set to have uniform tension throughout.

THE IMPRESSION

Although pressure is necessary to effect an impression, it should be just enough to transfer the ink from forme to paper. Whenever this safe limit of impression is exceeded, different lines of pressure acting on the sheet cause creasing. This results from a bulge formed, especially in matter containing borders or rules. The bulge, unable to straighten itself out, causes the creasing on the paper. This can be prevented by paying attention to impression and regulating it to the proper degree.

THE PAPER

Conditioning of paper is essential to avoid bad register. For avoiding a crease also, the stock has to

be exposed to the machine room atmosphere. By this, unequal expansion is prevented. Wavy edged paper results from unequal absorption of moisture by the fibres that go to make the paper. Wavy edged paper cannot lie flat on the forme and hence causes creasing. Sheets that are not flat but have a hollow in the middle will develop creasing while printing.

THE INK

It may surprise some to know that ink may cause a crease. We know unsuitable ink causes, among other things, set off, slur, rubbing off or chalking, mottling and a score of other imperfections. But how could ink cause a crease? Of course it does not cause the crease directly but only indirectly. When you are printing matter with a border, the stiffness of ink may bring forth a crease. This is because the stiffness acts on the paper something like uneven pressure which results in a crease. A stiff ink that has a tendency to pluck or pick or stick to the stock wholesale or in parts, or pulls the surface of the paper away will cause crease too. A reducer applied in safe quantities to the ink will bring the ink round. Too tacky an ink may cause a crease.

It is the responsibility of the printer not only to see that the printing is proper and to the satisfaction of all concerned but also to satisfy that the stock on which he has printed is not damaged or dirtied during printing. Crease is a form of damage that disfigures the printed stock. The causes that have been outlined above fairly represent those met with in our machine-rooms and can be summed up as those relating to a forme, those concerning machine adjustments, those regarding the dressing and finally those pertaining to

(Continued on page 30)

PRINTINDIA

From Our London Correspondent

F. & D. BROWNLEE

NEW PROCESS CAMERA

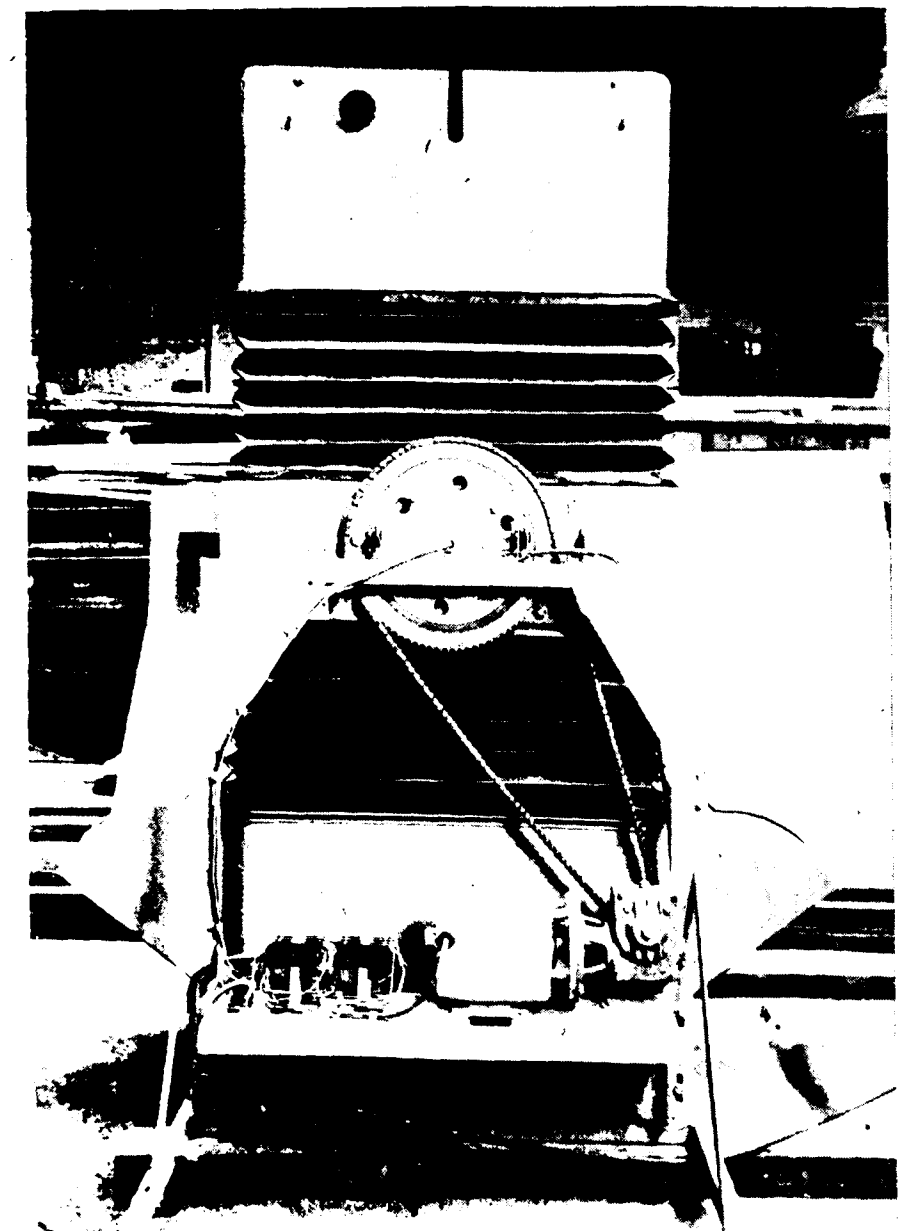
An important development in photo-engraving is the new Rotadon high speed process camera, produced by D. O. Nicoll Ltd. of London. The unique and basic feature of the design is the suspension of the entire camera unit, from copyholder to plateholder, on centrally disposed spindles which enable the camera to be rotated through 180 deg. so that the copyholder and then the plateholder are uppermost. One great advantage is the small floor space required, since the size of the actual camera is only 7 ft. by 3 ft. 6 in. by 6 ft. 6 in. high, enabling it to be housed and comfortably operated in a dark room 9 ft. square.

ONE-POSITION OPERATION

Complete operation of the camera is possible from one position within the dark room, including loading of the copy. Thus, without moving, the operator can load the copyholder, using the accurate positioning guide: focus to size by setting to scales on one dial, or visually, the correct stop being given automatically according to the camera extension: load the screens: select either of two lenses: place the plate or film in position: operate a special flashing light, and control the copyboard illumination. In addition, the shape of the camera is such that convenient racks for copy and screens, and light-tight drawers for film and plates can all be kept handy.

The camera capacity is 27" x 24" maximum copy, 20" x 16" maximum

negative, 20" x 16" maximum rectangular screen, and 19½" circular screen. The maximum area covered when copying the same size is 17" x 14", the maximum enlargement approximately 3½ times, and the maximum reduction approximately 4 times. Either dry plates or cut film can be used, and roll film offers no advantage except



D. O. NICOLL Ltd. Rotadon Process Camera

for special purposes when it can be accommodated. No prism is fitted so that other methods of reversal must be used, and manual control of the iris is provided for the secondary exposures, the correct stops being automatically indicated. Illumination of the copy is constant as to distance and intensity, and the optical equipment comprises 12" wide angle and 9½" lenses the latter being interchangeable by movement of a switch. Both the copy and sensitized materials are loaded horizontally.

SIMPLIFIED MECHANISM

The mechanical details have been simplified as much as possible, so as to give simple operation. The controls include a large easily-read dial with three scales giving percentage readings about the 100% mark where movements on the main sizing scale are very small, levers for manual setting of the lens stop when necessary, a 2-way switch for controlling the motor which brings either the 12" or 9½" lens into use, a simple "hold on" switch for the sizing movement with automatic cutouts to obviate any possibility of damage, a press button bringing in a flash light, a handle for focusing by movement of the lens panel by a lead screw, and a foot-operated switch for the copy-board lights with a selector switch giving four or six-lamp illumination.

ADDITIONAL COLOUR UNITS

The Simon Engineering Group have recently announced the development of conversion units for existing Hooper and Simon-Hooper printer slotters which will enable them to print in three and four colours. This is achieved by extending the base runway on which the normal two-colour machine opens and inserting either one or two regular printing assemblies, according to the number of

colours required. The additional colour unit is mounted on rollers and locked to the original delivery end section using a similar lever arrangement as on two-colour models. The result is to give a complete three or four-colour printer slotter, using an existing machine, an important advance in view of the ever-increasing demand for multi-colour printing.

INTRODUCING 20TH CENTURY KLANG

Recent typefaces, always of interest to printers, include the Twentieth Century Klang, a calligraphic letter introduced by Mouldtype Foundry Ltd. This is now available in four sizes, that is 14 pt. 18 pt. 24 pt. and 36 pt. This new display face is striking and attractive in appearance and should prove very popular, especially as an advertising face. The firm also specialise in perpetual and two-colour calendar types, available with figure sizes from 8pt. to 72 pt. in separate body units, together with all the essential alternative sorts for any year's arrangement.

WATER-RESISTANT PAPER

In the field of papermaking, interest attaches to the wet-strengthened papers being produced by Golden Valley Paper Mills, particularly for map and chart papers, laundry tags, drawing cartridges, and writing paper which is liable to come into contact with rain or moisture, such as delivery roundsmen's books, reporters' and auctioneers' notebooks, and notebooks for underground use.

It is of course familiar knowledge that ordinary paper loses most of its strength when saturated with water, and when attempts are made to write on wet paper the pen or pencil goes through and the paper tears. The difficulties

encountered have been overcome in the past by waxing or varnishing, a treatment that however changes other characteristics of the paper. During the past few years various synthetic resins have been used for increasing the strength of wet paper without noticeable alterations in appearance and other qualities. The manufacture of such papers entails the addition of the synthetic resin and the subsequent "curing" of the resin in the paper by heat. It is stated that papers treated in this way are even resistant to boiling water, and their appearance and writing properties are not altered in any way.

ADVT. IS PRINTED SALESMANSHIP

The important position occupied by the printing industries in this modern age is continually being emphasised by public speakers. Thus a writer in "Electrical and Radio Trading" advises print-buyers to "Be willing to admit that the printer is a craftsman, perhaps something of an artist, and that he has genuine advice to offer". He goes on to say "Most advertising is printed salesmanship. The advertiser therefore depends very much upon the skill of the printer and client, and that means respect for the printer's craftsmanship. Too often the client attempts to dictate his wishes and refuses to admit that he is ignorant of even the most elementary aspects of printing".

PRINTING IS PERMANENT

Addressing the members of the Bristol Junior Chamber of Commerce, Mr. Gordon S. Rankin, a Bristol printer, said that the introduction of television should bring more trade to printers rather than by competition, in the same way that the typewriter, the telephone, films and radio, instead of being

(Continued on page 35)

Preview of Leipzig Spring Fair

Air travel has extinguished distance. World has consequently shrunk in size and important international events bring visitors from all countries. Printing Exhibitions, Fairs and Festivals, at any point on the globe, are always covered by PRINTINDIA'S special correspondents. Our readers naturally expect detailed information from these pages. Therefore, we have brought the Leipzig Spring Fair, the first big event of the New Year, to the drawing room. Indian Printing is important, no doubt. But, international printing is here before you to strengthen Indian Printing

LEIPZIG SPRING FAIR-1956

The Spring Fair 1956 will take place from 26th February to 7th March 1956.

For printing experts this exhibition will be of special interest in that it will demonstrate DWV machines not only at the Fair, but for the first time also in full operation in Leipzig's printing presses. DWV will demonstrate there a full automatic plant for the production of books, the preparation of formes as well as an 8-colour rotary photogravure machine.

The Fair visa can be obtained upon entering the German Democratic Republic at the control points admitted to passenger-traffic against presentation of the Fair Identity Card and the Passport.

During the Fair an air shuttle service several times daily will be organised by the Czechoslovak Airlines (CSA) between the airports of Berlin-Schönefeld and Leipzig. Bookings will be made by the DER Tourist Office, Berlin W 8, Charlottenstr 45.

Foreign visitors may obtain Fair credit notes, the same offering an advantageous possibility to finance their stay in Leipzig.

VICTORIA SHEET-FED ROTARY

In the consequent evolution of their model BR 1 S, an up-to-date sheet fed rotary letterpress machine for first printing, of a paper size of

70 x 100 cms or approximately 27½ x 39 inches, with an hourly production of about 6000 sheets, the Chief Designing Engineer of the world-renowned engineering works of printing presses Victoria at Heidenau (Saxony) succeeded in co-operation with his assistants to bring to the market a further new construction. In interested circles of the trade, this ingenious new construction is known as the *Victoria sheet-fed rotary letterpress machine* for front and back side printing, model BR 11 SW, of a paper size of 92 x 127 cms equal



to about 36 x 50 inches, with a production of 6000 sheets per hour printed on both faces.

The success that could so far be registered justifies the assumption that this press will be the means of

regaining for the letterpress process the classical and most beautiful technique of printing—the territory lost to the other printing processes. Some of these presses have already been installed in well-known printing houses, and the trade is watching with interest further results.

MAKE-READY MACHINE

An ingenious complement to the BR 11 SW is another new construction, the make-ready machine ZM 11—protected by patents—on which the second set of cylinders are made ready for press while the first job is being run undisturbed on the BR 11 SW. On this make-ready machine, the following operations may be performed:

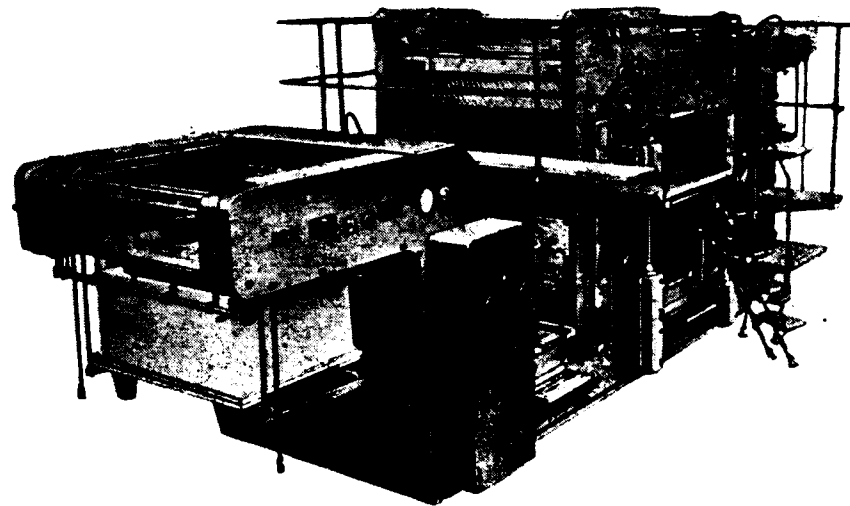
The clamping of the plates, the make-ready of the plates, the clipping of the underlays, the printing of the master sheet, and the checking of the plates.

Changing the plate cylinder—without the use of any lifting tackle—by means of a two-storey truck supplied with the press is done in an astoundingly simple way, and in the matter of 15 minutes.

Downtime is a costly affair. By the use of the make-ready machine, these standing times are reduced by as much as 80%.

Two heavy-duty inking mechanisms afford an excellent, intense coverage, and the washing attachments built in, the same as the drop-away ink fountains are facilitating the task of the machine minder.

The elegant and easy-to-survey structure, and the grouping of feeder—printing unit—transfer mechanism—printing unit and delivery make for convenient accessibility of the press.



Victoria Sheet-fed Rotary

AUTOMATIC BUCKLE FOLDER

The new model 570 was designed by VEB Falz- und Heftmaschinenwerk Leipzig. With stream sheet feeding and working on the buckle folding principle, this machine will meet particularly exacting requirements in the folding of sheets both for ordinary edition work, and for the manifold requirements of advertising material. The sheets to be folded are fed in uninterrupted sequence from the combined round pile and suction feeder RSA over a registering table with slanting rollers to the folding stations of the machine. A novelty on the slant roller table is the retractable centre part. Without the use of tools, the centre part of the roller table may be wheeled out sideways, thus allowing free access to the lower parts of the folding machine and of the feeder. A further, noteworthy feature is the steplessly variable conveying speed. By means of the adjustment of a drive by wide V-belts, the speed may be varied between about 40 and 120 metres (130 to 400 feet) per minute. Consequently, there is every facility of taking into account, in the simplest way, the different qualities of the stock. In addition to that, the feeding speed on the slant

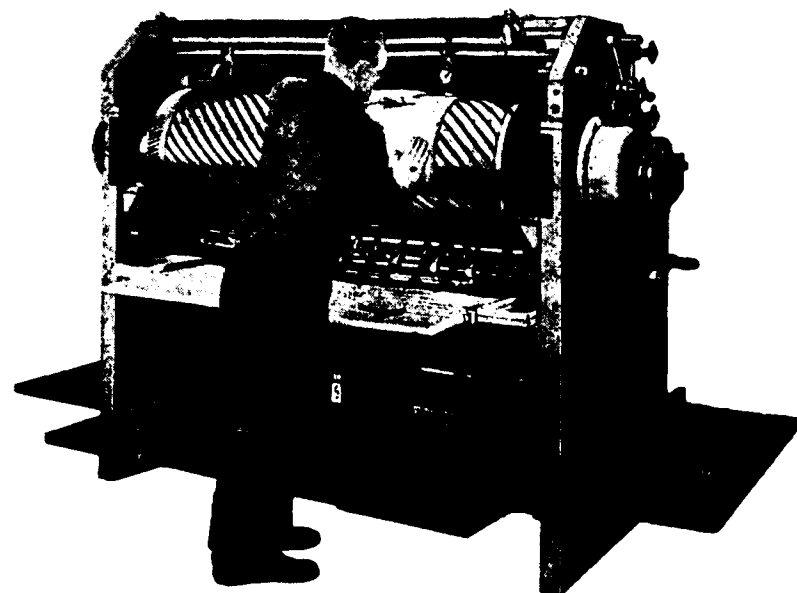
roller table may be regulated independently by means of the easily variable drive. This is of particular value when sheet parts severed in the parallel stations have subsequently to be cross-folded, an operation which enhances substantially the production of folded single sheets.

GOOD ACCESS

In another respect too, viz., in the handling of the folding pockets, the model 570 affords many an

ease. The pockets are supported by racks, and may conveniently be brought into correct working position by means of a hand wheel. There is no need to take them out for adjusting or cleaning the rollers, but they may remain in the machine at little distance from the rollers. For the preservation of the folding and drive mechanisms, the cross fold sections may, when not needed, be disconnected by simple displacement of a control sleeve. All control elements are located in unobstructed view and convenient accessibility, being easy to operate. No tools are necessary for ordinary settings. The new suction feeder RSA connected with this machine, works on the round pile or fanning-out principle. It is characterized by the novel pivoted suction drum which is adjustable in height, permitting the sheet to be tilted in view of an increased effect of the air blast. The latter streams reliably underneath the sheet, ensuring efficient separation and trouble-free gliding off the pile.

Great importance was attached, in the designing, to the simplifica-



Make-ready Machine Z M II

PRINTINDIA

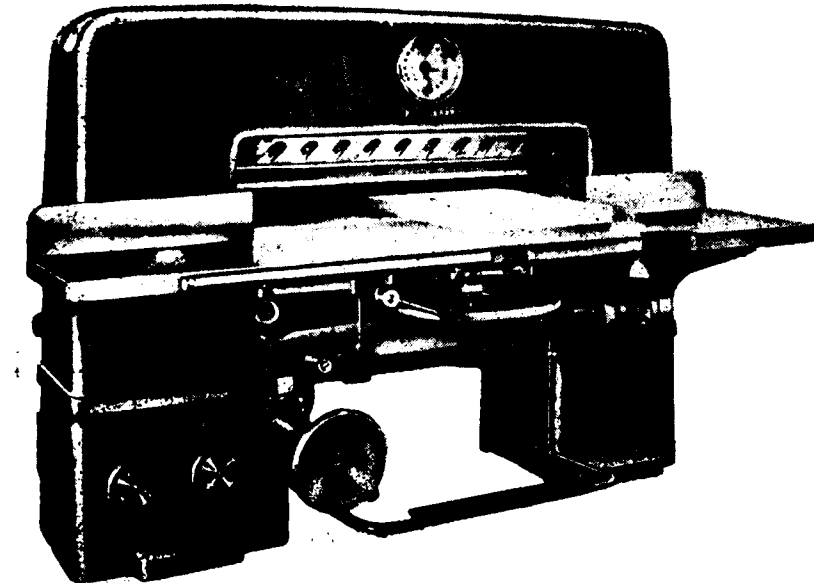
tion of the attendance. Whereas upto now, a pile thickness of 3 cms (1 1/4 inch) could not be exceeded, the sheets may now be laid on in a thickness of about 7 cms or nearly 3 inches, i.e. in considerably higher number, which makes for an economy in man-hours.

This automatic folder No. 570 with its up-to-date features is recommended for medium sheet sizes in long runs and for a variety of folding schemes.

Along with numerous other machines and new constructions, the new automatic heavy-duty buckle folding machine No. 570 will be exhibited on the stall of DWV Deutsche Waren-Vertriebsgesellschaft m. b. H. Polygraph-Export, 61/62 Friedrichstrasse, Berlin W 8, in the Bugra-House, Gutenberg Square 5-7, during the International Leipzig Spring Fair due to be held from February 26th to March 7th, 1956.

HIGH-SPEED GUILLOTINE

The VEB Buchbindereimaschinenwerk Leipzig have developed the high-speed guillotine, model A 112 Htn. The machine is of sturdy design; the modern, encased layout



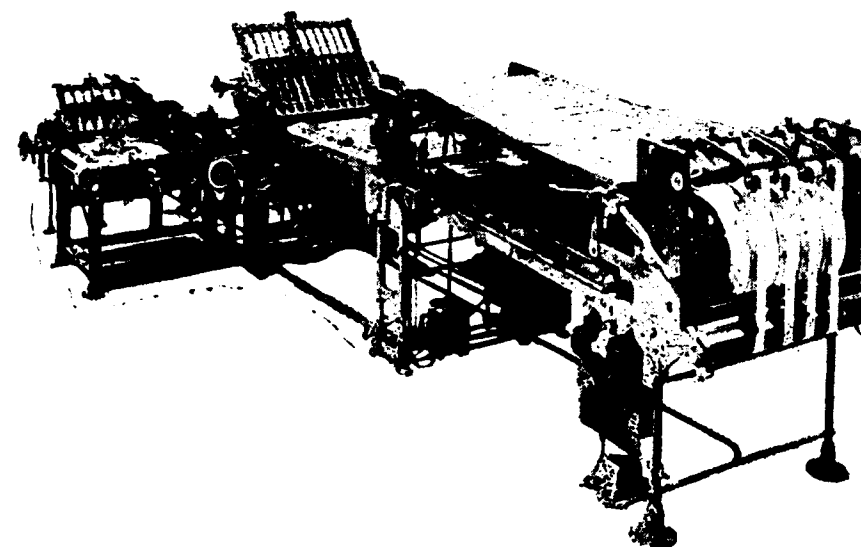
DWV High Speed Guillotine

facilitates the attendance to the machine. With the exception of the knife beam and the knife, the same as of the clamp beam for holding the pile tight, there are no moving parts to be seen during the operation. All the mechanisms are lodged in the interior of the machine body. The fly-wheel is located in a casing to which the electric motor is fastened by flange.

OPERATING FACILITIES

In order to facilitate the task of the operator, and to protect him

from accidents, there is provided, for starting the machine, an electromagnetic coupling with push button control. Instead of the usual hand rejector, a two-hand throw-on is provided. While the right hand is pressing down the start knob, the rejector bar disposed on the front table has to be pulled out with the left hand. If this bar is pushed back, even a trifle only, the machine will stop instantaneously. The range of vision of the operator is in no way confined. Side tables on the left and right of the main table make for easier stacking of the material to be cut. By means of a big hand wheel which drives the back guage and serves at the same time for the precision adjustment, the pile is quickly displaced. An indicator above the cutting station allows the position of the back guage to be conveniently and accurately read on a scale in five-fold enlargement. For the illumination of this area, a tube lamp is built in, free from glare. If the pile is to be positioned according to register marks, the front edge of the clamp beam may be used, in the well-known fashion, as a cut indicator. To this effect,



Automatic Stream-fed Buckle-folder

the clamp beam may be lowered upon the pile with extreme ease with the help of a foot treadle.

SAFETY

As mentioned above, the machine minder needs both hands for setting the machine going. He can, however, during the downward movement of the blade, release the starting elements. His hands are thereby engaged only for a short while, and just that long to guard him against stretching out his hands underneath the descending knife. The clamping of the pile is done in a new way with the aid of springs. A special lever system gives the springs a maximum pre-tension, before the cutting cycle begins. As a result, the knife will only penetrate into the pile when the full clamping pressure will be reached. During the standstill, the springs are discharged, whereby the machine is guarded against operational injuries.

COMPACT LAYOUT

All the gear wheels are lodged in sealed gear boxes for noiseless running. After every cut, their lubricating points are swamped with oil, and attendance to the machine is greatly facilitated. The layout, is compact and the outside measurements of the machine are less than those of similar machines

of somewhat smaller size. Excepting the connection of the main inlet to the electric circuit, the machine is supplied completely wired.

A further innovation is the air cushion table. It means a valuable operating facility. The displacement of the material to be cut on the table is very easy. By the weight of the pile placed on the table, ball-closed blower valves covering the whole table are opened, releasing a current of compressed air on which the pile may be moved to and fro. The pile is thereby conserved in its orderly shape down to the undermost sheet, with resulting cuts of higher accuracy.

HIGH SPEED AUTOMATIC SPACER GUILLOTINE

With the invention of the automatic spacing by the "Perfecta" people, a new era was inaugurated in cutting machine design. The high-speed guillotines and continuous three-knife trimmers that were to gain world-wide reputation, are the results of some decades of constructional development. With their cutting mechanisms and control elements designed to perfection, they are meeting the requirements of the paper converting industry. Common advantages of the high-speed guillotines and of

the rapid three-knife trimmers "Perfecta" are the following:

Sturdy, enclosed layout admitting a maximum of cutting strain and productivity even with permanent operation, convenient attendance, freedom from accidents, and cutting of highest precision for any jobs.

NEW TYPEWRITER TYPES IN MANY LANGUAGES

A multilingual typewriter which can type in more than 50 languages has been developed by the Ralph C. Coxhead Corporation of Newark, New Jersey. The machine requires no special linguistic knowledge on the part of the operator.

The typerwriter, known as the Coxhead Vari-typewriter, employs interchangeable type founts. A reverse carriage model, typing from right to left, is used for such languages as Arabic, Persian and Urdu.

Before the actual typing begins, a linguist writes out the text in the language desired. He then substitutes numbers for the characters, with diagonals, circles and squares indicating punctuation. Inserting the proper type fount in the machine, the operator strikes the keys according to the numbers into which the text has been "translated." If the text is to be printed, the finished typescript is photographed and an offset plate is made.

Barton Addresses Budding Printers

By

OUR SPECIAL CORRESPONDENT

Mr. J. D. Barton, Production Manager, Southern Area of the Hooghly Ink Co., Ltd., Madras, addressing a packed hall of young printers, emphasised the need for testing ink before putting it to use. He corrected the impression among Indian Printers that anything that is made in India is of poor quality. India, Mr. Barton stressed, does not lack in technical skill and that she is producing some of the best materials like ink for the printing industry

The Printing Technology Association, Central Polytechnic, Madras, had arranged a lecture by Mr. John D. Barton of Hooghly Ink Co., Ltd., Madras, at 5 p.m. on 30th January 1956. The subject was "Printing Ink." A well attended gathering of students, staff members of the printing section as well as visitors from the industry listened to the brief but very interesting talk of the Printing Ink Expert.

STUDENT CHAIRMAN

Sri D. Ramalingam, Student Chairman, introduced the speaker of the day to the gathering. He said that Mr. Barton had undergone intensive training in the London School of Printing and was posted as a technician to the Calcutta Factory of Messrs. Hooghly Inks, seven years back. Now he was in charge of the Madras Factory.

Mr. BARTON SPEAKS

Mr. J. D. Barton in the course of his lecture appreciated very much the equipment the printing section was having and the training that was being imparted to students. "I am glad to know that more equipment is to be bought for the printing section and I am sure that you will go out as good technicians into the industry. What the printing industry needs are not supervisors, managers and foremen alone, but real practical craftsmen.

TEST YOUR INK FIRST

"When you complete your training and join the presses, you have to

a few spots of ink. You should then see how long it takes to dry, how it sets on paper, whether it rubs off, or is firm, etc. You would then know by testing various qualities of ink, which one is best suited to that paper.

AVOID WASTE

"I have seen many press owners wake up to the unsuitability of ink after printing 5,000 copies or more. I should tell them that they should have tested the ink with the paper before actually printing a large number of copies. Ink may be tested on a proof press when the matter is set, or on a stone when the matter has been imposed or on a platen press with the paper to be actually used for the finished job. I should like to repeat that a can of ink, because it is supplied by a reputable manufacturer need not necessarily suit every kind of paper, machine, speed or other conditions. Therefore you must test the ink before using.

INDIAN INKS ARE GOOD

"Another thing I want to stress is that Indian Printers have a tendency to under-rate the quality of materials manufactured in this



The Hooghly Ink Expert delivers the lecture



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Catalogue free of charge

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Printing students and staff listen with rapt attention

country. They think that anything made in India should be of poor quality. I am very sorry for this wrong attitude on the part of the printers. You take the instance of Hooghly Ink Co., which is the most experienced and the oldest in this land. Others like Ganges followed suit several years later. The Nasik Press for printing Govt. Stamps and Currency is using Hooghly Inks since the very inception of the press and they have always found that the inks manufactured in India not only equal the imported brands but in some cases even excel them. You as technically trained personnel have a great duty to educate the printer, the customer and others in the industry.

CHEAP INKS ARE FALSE ECONOMY

"Another thing is to buy cheap inks and use as substitute for good ones. A cheap ink is a waste and not at all an economy as it results in shoddy printing spoiling the reputation of the printer once for all. The printers here do not have a scientific costing system. Their quotation for jobs are always guesses. This results in under-

formulae, but none of them is very reliable. There are many factors, each of which is variable, in estimating printing ink. Some of these are paper, wash-ups, nature of the printing surface, etc.

APPLIED THEORY

"One more thing I want to say and that is, your theory should not be applied in toto to all cases in actual practice down at the press. Remember that theoretical principles have to be applied with due regard to existing conditions. Then alone they will come out correct. When conditions vary, you have to alter suitably these principles in the light of the particular conditions existing."

IMPROVE QUALITY

In conclusion Mr. Barton asked the students to improve the standard of printing which is low in the country. "This can be done by using good materials, good paper, good ink, good blocks, good type, good machinery etc. It is not enough to use good ink and paper alone with worn out types or third rate blocks. It is necessary that

(Continued on page 35)



Sri V. K. Sriramulu, Section Head of Printing Technology, addresses the audience

Paper Progress

News and Notes of the Month

By

"DANDY ROLL"

In this page, a digest of developments in paper-making technique, output, consumption and other useful information is given for the guidance of printers and other paper users

THE NEPA MILLS

At Nepanagar in the year 1954 the Paper Machine and the Groundwood Mill had been installed, but the Mill had not started producing paper. Since then important developments have taken place. As the Chemical Mill was not ready, it was decided that trial production of newsprint should be started with imported chemical pulp and indigenous groundwood. Trial production continued upto May. As unbleached newsprint was not readily marketable it was decided to bleach the groundwood pulp with the existing equipment in July. Since then bleached newsprint has been in production. Although considerable difficulty was experienced in disposing of the sub-standard paper produced initially it helped to train the crew and to tune the paper machine. The bleached newsprint found a ready market and it has been possible to sell all the paper produced up to date. The newsprint now being produced compares very favourably with the imported newsprint in physical characteristics and brightness. This newsprint has a creamy shade which it derives from the tannin in the Salai but it is a characteristic which does not in any way detract from its quality.

OUTPUT READILY SOLD

During the year 1955 the Mill produced 2600 tons of paper and they have been able to sell all of it. A large number of medium and

small news papers are regularly using the Nepa newsprint. Some larger newspapers also use it for their evening and mofussil editions. The patronage that they have extended to the Mill is gratifying and it is hoped that they will use this paper in larger quantities in future. The most outstanding achievement has been that the Salai groundwood, about which serious doubts were expressed in many quarters, has now been proved beyond doubt as a suitable raw material for the manufacture of newsprint. The credit for this achievement goes to the courage shown by the Governments of India and Madhya Pradesh in supporting this venture but in no lesser degree it is attributable to the skill and patience of our own technicians. Equally important is the achievement that our technicians have standardised the furnish of the paper. The newsprint now manufactured contains not less than 60 per cent mechanical pulp. The erection of the Chemical Mill has been completed and the Mill is now in a position to produce for the first time a hundred per cent Indian newsprint.

NO EXCISE DUTY

The Government of India have exempted the sale of Nepa newsprint to newspapers from payment of excise duty. This decision will be of considerable help to the Mill in disposing of its product. It is hoped that the Government of India will further assure for the product of

this Mill a market by creating a pool of indigenous and imported newsprint. Without this assistance efforts to achieve a steady marketable production may not be easy. The year 1954 has been a fruitful one and the outlook is now brighter than it has ever been in the past in the history of this Mill. It is a matter of satisfaction to all concerned that it has been possible to complete this project within the period of India's First Five year Plan.

WELFARE OF EMPLOYEES

The welfare of the Mill's employees is and has been a prime consideration with the Directors. The main objective of India's industrialisation plans is to improve the living standards of the people and it would be ironical if the people serving those industries are not enabled to live better than they have done in the past. But the success of this Mill, as of the country's plans, depends upon the workers themselves. Their fortunes are inevitably linked up with the fortunes of the industries for which they work. This Mill is a combination of private and public enterprise and it has accordingly a special obligation to fulfil. It has to assimilate the virtues of both and the evils of neither and its employees are privileged to be participating in the "exciting adventure of India's development." They should therefore, be inspired by a sense of pride and patriotic purposefulness.

Please refer to

PRINTINDIA

while writing to advertisers

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Grams: NELSONCO

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ESTD. 1916

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IN

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MITRING, LEAD & RULE CUTTING MACHINES ETC.
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NELSON TYPES

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RUSH FOR RIMMING

In the city there is a rush for calendar rimming and rates vary over a wide range. A thousand single rimming with coloured metal will cost anything from 15 to 30 rupees or even more depending upon the size. All the rimmers in the city are heavily booked and have a long queue of prospective customers. Some have openly refused to accept any more orders, while others either quote a very high, say Rs. 50 - per thousand, or give a very late date for delivery, say March 1956 (not 1957)! Calendar-making is a seasonal industry and Calcutta exploits this season to the fullest advantage than the other cities. Advanced planning is called for, but here we find people suddenly waking up in late December to rush to a Printer and order for printing their calendar. The printer too considers the months of December and January as ones of broken promises. When all over the world New Year resolutions are taken to keep up promises, the printer and calendar rimmer break one promise after another!

PASS METALS PASS ALL TESTS

Pass Printing Metals, London, are the pioneers in the field of printing metals. They are the first to print an authoritative technical treatise on printing metallurgy. Over 20,000 copies of this manual have been sold and new editions keep the information up to date. They were the first to guarantee specific proportions of constituent metals and branded each ingot with the figures, as 3-11, 3-13, etc. In the field of research and development, many important new alloys, such as the 10-16 all purpose Monotype metal, are a contribution to progress of printing. A foundry technique is being perfected by them to set new standards of quality in printing metals. An essential part of the business of Pass Metals Ltd., is the regular periodical analysis and maintenance of

metals supplied by them. Thus the Printing and Allied Industry's metal problems are considered the responsibility of these famous metal manufacturers.

STANDING PLATES ARE A STANDING NUISANCE

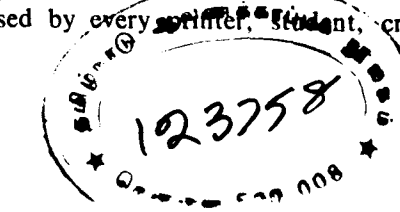
Leaving work standing on the plate or waiting for a reprint has been a vexed problem. Expensive zinc plates cannot be tied up indefinitely when they can be regreined and used again. Due to their cumbersome-ness, storage problems are tricky and due to their liability to oxidization there is consequent deterioration. They have to be thoroughly gummed up and frequently examined. The advantages of avoiding duplication of process work should be examined and existing plates make a big contribution to price saving and profit-making reprints. Keeping work standing on glass negatives is easier as it releases plates for regreining for other work. But cost is high for this too and the risk of breakage of glass negatives is there. Astrafoil can be used with advantage as base for positive and negatives. It is refraction-free, dimensionally stable, easy to handle and simple to store, the image is indestructible once printed down and remains unaffected by humidity or changes in temperature. It does not crack or in any way deteriorate. A single exposure on the printing down frame is all that is required, for printing on metal from Astrafoil. For work involving expensive process and step and repeat work, Astrafoil originals are valuable. For storing, these are invaluable. Register remains unimpaired during storing as the image remains unaffected by humidity or temperature.

MONTHLY BRITISH PRINTER

Since 1888 the BP was being printed every two months. From January this year it is published as a monthly. This is a welcome feature as the BP has been used by every printer, student, craftsmen and

FEBRUARY 1956

52
M14 m 2, N54
N56-546



dealer in the industry all over the world. Frequent advances in printing technique have called for a monthly reliable journal to keep the reader abreast with modern developments. BP is the predominant and most influential periodical serving the printing industry. The price per copy is 2s. and a year's subscription for readers in India is 29s.

PLASTIC BOTTLES TO KEEP ACIDS

For offset lithography many chemicals and solutions are used. Polyethylene plastic bottles are the latest in containers. The Western Printing and Litho, Co., USA use these plastic bottles for mixing, storing and dispensing chemical solutions for offset printing. These bottles are unbreakable, non-corrosive, and have made mixing and drawing chemicals simpler. As they are transparent the solution is visible at all times. In short, the plastic bottles combine the advantages of glass and that of plastic without the disadvantages of either.

PLASTIC MATRIX AND RUBBER PLATES

Known as flexographic printing, Rubber stereotypes for curved rotary printing have come to stay. They are cheaper and are made by rubber moulding from plastic matrices, taken from the forme. Commercial printing, stationery forms, cellophane wrappers, food bags, envelopes, boxes are a few of the items that can be handled by flexographic printing. Those having irregular surfaces lend themselves much to rubber stereo printing. Although rubber plates can be used as flat printing surfaces also, they require absolute perfection in thickness and base which is difficult to obtain.

ELIMINATION OF ELECTROS AND STEREOS

It has been successfully experimented that instead of electroplates or stereoplates, Linotype slugs sawn and soldered may be used. Messrs Murray Printing Co., USA, sawed off 7/8 of the bottom of Linotype slugs. Three grooves were made in the remaining metal, vertically in which steel wires were inserted. These slugs are soldered on a special machine. Plates so made give good performance, their thickness is uniform and less make-ready is required, and these are economical when compared to duplicate plates such as stereo or electro.

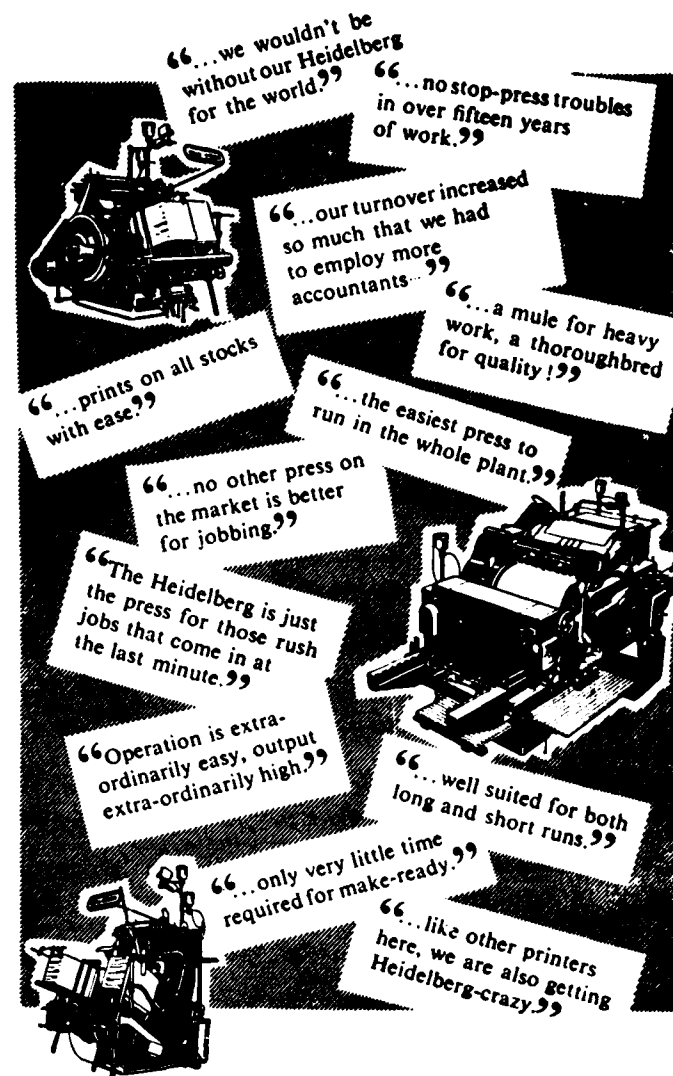
TATA SONS LTD DESK DIARY

The Commercial Printing Press, Bombay, have as usual brought out an attractive desk diary. Printed in many colours, containing rare prices of artistic reproduction, this is a remarkable addition to the already known good work of the Press. Readers may recall that The Commercial Printing Press, Bombay, bagged the State Award for Art Magazines, for "Marg."

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that tell the tale of the marked superiority of

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printing presses!



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THE EAST ASIATIC CO. (INDIA) LTD.

Printing Machinery Section

Bombay • Madras • Delhi • Bangalore • Secunderabad

Layouts and Lettering

(Continued from page 7)

In the December 1955 issue, it was illustrated that display may attract by any one or more of the following means :-

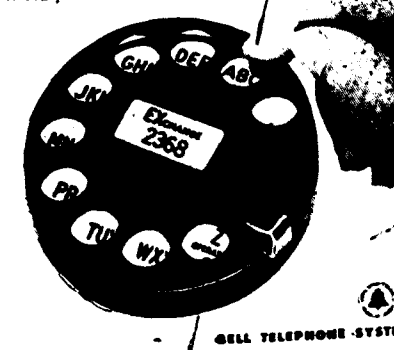
1. Contrast in Type Faces
2. By symmetrical Balance
3. By harmonious association of type faces. To these may be added a few more which will serve equally well to attract the reader and direct his reading.

Take a letter from A to Z

When you turn the telephone dial you are taking a round of one of the world's largest and most ingenious machines. It is a great mechanical brain which has no wires and passes along the letters and the numbers you select. It sets up traffic lights to hold the road open, and to point back at the telephone you want to ring.

That has made great strides in recent years, but greatest things are to come. Some day, Bell Laboratories will make it possible for you to dial across the United States as simply and promptly as you dial a neighbor's room.

All of this is part and parcel of the new Bell Telephone Laboratories program - to help the Bell System keep on giving you the finest telephone service in the world.



PICTURE APPEAL

4. Appropriate Illustrations do this work very well. Indeed the present day tendency is to have more and more of illustrated adverts. The extremists of this class consider copy without "cuts" as a bullet without shot. The role of illustration well selected and ably used cannot be over-emphasised. The piece reproduced here is an example of this. The matter relates to stockings. The stocking appeal appears to be well exploited by the stockinged foot dominating the whole advertisement; the type lines too have been slanted to harmonize with the stockinged leg

A B C D E F
G I L M N O

GROUPED STYLE

of the lady. The type face with long ascenders and with a delicacy all their own, tells the story of the stockings well. Prices are set in a larger size but not necessarily bolder one. The reversed oval at the top balances well with the signature script line at the bottom. The high heel at the left-hand corner, the flush cut of the thigh at the top and the Roman line at the bottom, as well as the dash line along the top make a well arranged piece of publicity.

Continental foundries are famous for their type faces. Similarly continental displays excel in grandeur their counterparts in UK and USA. The last mentioned is well known for its sensational overdone display and the U.K. for its conservatism and strict adherence to theoretical rules. It is the continental display which strikes a golden via media between these two extreme schools of typographic design. The advertisement which I have taken from the Belgian Newspaper "Le Soir" is an example of not sound display alone but also to the truth that *language is no bar to appreciation of good display*. Is not typographic display having a language of its own which makes nothing of man-made boundaries! This is a fact to be remembered by all printers in these days when energy and enthusiasm are wasted over linguistic lads!

5. The division of type forms into pleasing groups also makes the display attract attention. The National Insurance Advt. divided into five units illustrates this. Although each group is distinctive, all combine into a happy harmonizing whole. Caslon Bold and italic, Bodoni Book and Century Bold chosen are pleasing.

6. Every newspaper-man knows that space is money. It is logical that valuable space in newspapers should not be wasted. The judicious use of white space or blank space lends attraction to adverts. The Bell Telephone Advt. selected as an example to prove this has a line that gives an off the centre balance to the whole matter. The italic line at the top also helps this illusion. The available blank space is distributed intelligently at top, sides and bottom. The whole gives a dynamic appearance.

In 55 B. C. England was invaded by Julius Caesar and his Roman Legions. The Romans not only brought their arms but also their alphabet with them. For once the conquering hordes remained to enrich the culture by giving it an alphabet, a written script, a readable language. This in short is the basis of the present day Roman Alphabet. Hence the name "Roman" also, by

(Continued on page 35)

P Q R S T V X

50 YEARS IN THE SERVICE OF THE PRINTERS

★
**A GREAT NAME IN
FINE FINISHED TYPES**

★
Manufacturers of

PRINTING TYPES IN 14 LANGUAGES

TAMIL, TELUGU, ENGLISH, GRANTHAM, MALAYALAM, CANA-
RESE, HINDI, SANSKRIT, MARATHI, DEVANAGARI, GUJARATHI,
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AND
**HALF-TONE, LINE &
ELECTRO BLOCKS**

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SUPPLIERS OF PRINTERS' REQUISITES

ESTD. 1906

Grams: BHUVANA

Phone: 8291

SWADESI TYPE FOUNDRY

CHINTADRI PET

::

MADRAS-2



Are You Still Setting Type by Hand?

(Continued from page 10)

line only could be set by hand in this space of time. The Linotype composes and casts one *line* of type while the compositor is setting one *type* at a time. And of course there is no distribution of the slugs after printing from. They are just re-melted into ingots. New type is available for every job which means reduced hours of make-ready and better quality printing. Correct height, clear, sharp face and less make-ready on the machine cut cost considerably.

EASY HANDLING

Hand composed type is very difficult and risky to handle. The possibility of accidental breakage is always there. Imagine an urgent matter being broken and the whole having to be re-set up. Only a dozen lines can be handled at a time and making up of hand-set matter is slow and has to be done by senior compositors only. The story is different with Linotype slugs. First, about fifty slugs can be safely handled at a time. Even a beginner can fearlessly lift them and an unskilled hand can make them up or blank them out, correct them and even lock them up in a chase ready for printing. Years of training are needed before hand-set matter can be so handled. Quicker making up also is assured. Letters out of alignment, last lines pied, turned characters, spaces rising and wrong founts which are typical errors of hand-set matter cannot occur in slugs.

At a time it is possible to set one line in the assembler, have a line under casting and a third under distribution. Therefore three lines are simultaneously attended to on the machine. The speed of typesetters goes as far as 20,000

characters an hour. Hand operated machines can give speeds ranging from 5,000 ens for the beginner to 10,000 ens for the experienced.

LINOTYPE FACES

In the United States the Book field is dominated by Linotype faces famous for their clarity, beauty and readability. Every year's Book exhibition reveals many notable faces used for the best books of the year. In 1952, 36 of the 50 were Linotype-set books. The new Linotype book face Pilgrim has been received well by all book printers. It is a recutting of a roman face designed by the late Eric Gill, designer of Gill Sans and Perpetua—two popular faces of contemporary typography. For the past fifty years, Eric Gill's name stands out as one of the great typographers. As time passes, his value in the typographic world is more and more appreciated. He has always preferred pure forms derived from the incised letter which has added a new quality.

In the 1954 contest, four Linotype faces again scored victory. They are Caledonia, Baskerville, Granjon and Janson. As far away as the Fiji Islands, Devanagari Keyboards are in operation on the Linotype.

POSSIBILITIES AND RANGE

The Linotype is designed to keep pace with present day developments in typographic design, flexibility in production of many body sizes from 4 point to 36 point or more in measures from 4 ems to 30, 36 or 42 ems. Single or multiple distribution is possible. Machines with standard main magazines or with side magazines increase the range of types within the operator and cater to every type of setting. Newspaper column matter, bastard founts for the editorial, head lines, display—all can be executed on the Linotype. Commercial printing

and bookwork are also handled on it with profit.

VERSATILITY

The scope and versatility of this composing machine has been extended by modern developments. Added facilities from additional mechanisms have further simplified the work of the operator. The Self Quadder, Micro-Therm electric pot, the six mould disc, duplex display mats, the two-in-one text and display machines, the super display machines, the 42-em Lino type, the super Fleet 54, the Comet Linotypes, etc. are the modern improvements that have been brought about by the manufacturers.

TRAINING IS ESSENTIAL

There is a demand for operators and plant executives and mechanics who have competent knowledge in the working, operation and maintenance of Linotype machines. To meet this ever growing demand the *Regional School of Printing, Madras, has already a three years intensive course in Linotype* and the school which will shortly open at Calcutta will have a similar course too.

In the Service of the Printers for many years Now!

- PRINTERS RUBBER ROLLERS
- BREHMER STITCHING & SPARE PARTS
- C & P TREADLE SPARE PARTS
- CUTTING MACHINE KNIVES
- CHASES & MOULDS
- ELROD MACHINE LEADS
- GAUGE PINS GERMAN
- BRASS & STEEL RULES & FOUNTS
- PUNCHING & CORNERING MACHINES AND EVERYTHING IN PRINTING MACHINES AND MATERIALS ETC.

PLEASE CONTACT

Gunvantray & Company

Khadia Char Rasta Crescent Chambers, 1st Floor,
Nava Darvaja Road ★ Room No. 2,
AHMEDABAD-1 Tamarind Lane, Fort, BOMBAY-1

To enable uniform standards and adjusting practices and efficient production the Linotype Machinery Co., have through their manual established certain practices and methods of maintenance and adjustments which should be followed by all concerned if they are to get maximum production from these machines.

Although many operators are trained by the factory people or at the press, it pays one to join and study in an organized Linotype class having a regular curricula, schedule of teaching hours, technique and tests, examinations and award of certificates. Only on such foundation laid by a printing school any later experience for skill and proficiency in operation will stand.

The type-composing possibilities of the wonderful tool called Linotype can be measured only by the skill of the operator. The development of the skill and maintenance of high standards of production rests with proper training in the Linotype Class and sound practices in the press thereafter.

START MODERNIZING— START WITH A LINOTYPE

Any composing room that is being modernized should have a line composing machine. Without this there is a void which cannot be filled by other substitutes. The floor-space occupied by the Linotype is very small when compared to the rows of cumbersome frames and racks necessary for hand composing. The number of hand compositors to be employed and the responsibility of satisfying them in conditions of work, pay and amenities are great. Compare that with one operator producing work of more than half a dozen compositors. Think about the quickness of slug casting, the clean new sharp types you get for printing, no more distribution, no hell boxes

and pied cases, no picking for sorts nor any shortage or waiting for distribution either. How many of our printers have thought about these advantages?

The Linotype machine, as exemplified in the latest Super-speed tele-typesetter-operated Fleet Fifty-four, remains not only a modern mechanical marvel but also the bread and butter machine of the newspapers, provider of a decent profession for our young men and a sound investment for the printer—big, medium and small, book, news and job.

Crease-Free Printing

(Continued from page 14)

printing materials, i.e., paper and perhaps ink.

All of us have left out one important element—the human element. This is not the least important, although the last one we are considering as the probable and perhaps the possible cause of creasing. A good machine minder like a good doctor is keen in preventing defects like crease and

not to run after a remedy after it is caused. Normal care in the preparation of the forme, setting of the machine, i.e., grippers, feed-board, sheet control mechanism, impression, etc., suitable dressing, a well cut, squared and conditioned stock will ensure defect-free printing. The minder should not neglect routine checks of machine parts, oiling, cleaning and other essentials. In the case of automatic feeders, care should be bestowed on rollers that propel the sheet, air blast controls, the side and front lays, all associated parts need careful adjustment and constant check up. Improper movement of the sheet will cause crease.

In hand-fed platens crease can be caused by improper lays, pins or quads out of square; the frisket fingers not pressing the sheet evenly, wrinkled top sheet, buckling of the sheet while placing on the tympan are a few of the other causes of creasing. It is safe to take that border matter causes a crease unless one is careful. Rule work also is likely to cause a crease. Proper packing is the answer to both the cases.

EXHIBITION OF BOOK JACKETS

An international exhibition of book jackets, organised by the Akhil Bharatiya Hindi Prakashak Sangh, is being held at Allahabad in March next.

About 25 countries, including Australia, Argentina, China, Canada, Czechoslovakia, Egypt, France, Hungary, Japan, Sweden, U.S.A., U.S.S.R., United Kingdom, Yugoslavia and Poland have assured the organisers of their co-operation by getting best specimens of book-covers from their respective countries.

Publishers' associations, in various Indian languages are also being approached to select best specimens of book jackets from their areas.

A Committee, consisting of five reputed authors, publishers and artists, is being constituted to judge the best Indian entries and award gold and silver medals and certificates of merit to the publishers of winning jackets.

News and Views

ALL INDIA PRINTERS' CONFERENCE & EXHIBITION

Fourth Session at Allahabad

The Fourth Session of the All India Printers' Conference will be held at K. P. Intermediate College Hall, Allahabad, on the 25th February 1956. The Hon'ble C. B. Gupta, M.A., LL.B., Minister for Industries, Supplies, Planning and Health, Uttar Pradesh, has kindly consented to inaugurate the Conference.

The Reception Committee is headed by Sri Tushar Kanti Ghosh of the *Amrita Bazar Patrika* and Sri H. P. Ghosh of Indian Press Ltd., Allahabad, is Honorary Secretary.

The Exhibition will also be opened by Hon'ble C. B. Gupta on the 25th February and trophies and Certificates of merit will be awarded to the successful competitors on the 27th. Sri B. Malik, ex-Chief Justice, Allahabad High Court, will give away the prizes. As in the previous years, a good number of trophies etc., will be awarded including a Special Challenge Trophy declared by the Calcutta Association of Master Printers in memory of Late Suresh Chandra Majumder, M. P. The Exhibition will remain open for a fortnight.

The subjects for competition cover a wide range of subjects of the Printing & Allied Industries. In the Letterpress section, Books, Magazines, Direct Mail Publicity, Calendars, Posters, Cartons &

Packaging, Labels, Letter-heads, Bill-heads and Invoices, and Show Cards; in Lithography, Direct Mail Publicity, Calendars, Posters, Labels, Cartons & Packaging, Letter-heads, Bill-heads and Invoices, Show-cards; Book Binding; Embossing, Process Blocks and Books printed on indigenous paper, etc.

* * * MADRAS REGIONAL SCHOOL OF PRINTING

The advisory committee of the Regional School of Printing held its first meeting on 16th January 1956 and considered a number of questions relating to equipment for the school, its location and proper housing, and connected matters.

The scheme proposed by the Union Ministry of Education for running the school has already

been accepted and the institution will cater to the entire southern region, comprising Madras, Mysore, Andhra and Travancore-Cochin. It is learnt that measures for the implementation of the scheme are being taken rapidly and proper buildings may also be shortly secured for housing the school.

The advisory committee consists of the Joint Director of Industries and Commerce, Madras, (Chairman); the Superintendent, Government Press, Madras; the Assistant Educational Adviser to the Union Ministry of Education; the Superintending Engineer, Central P.W.D., Madras Circle; Mr. S. Viswanathan; and Mr. V. M. Philip (members), and the Principal of the Central Polytechnic, Madras (secretary).



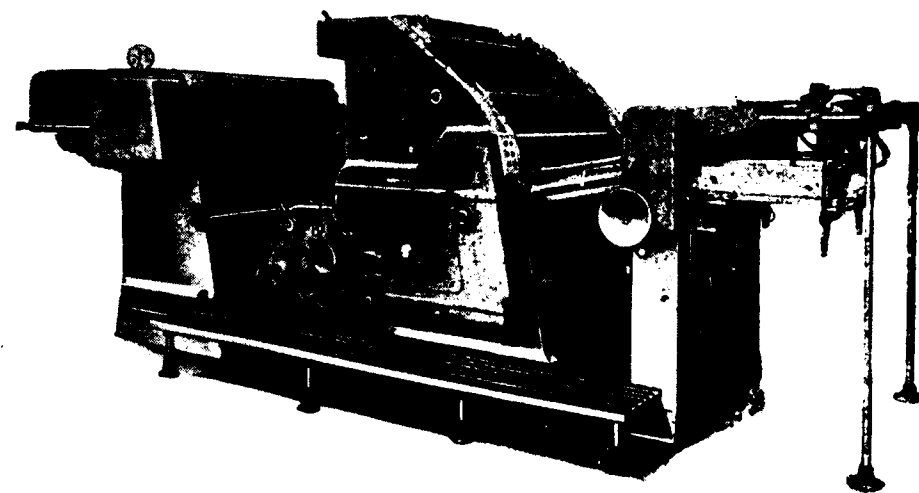
Marriage of Sri P. C. Gopalakrishnan of Production Dept., M/s Vakil & Sons Ltd., 18, Ballard Estate, Bombay, with Sow. Indira Bai was celebrated at Madras on 25.1.56. The elite printers of the city attended the wedding. The bridegroom is an old boy of Central Polytechnic Printing Section

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Book Binding Craft

(Continued from page 12)

and gathering hands should watch for wrongly printed copies and eliminate them.

EXAMINING

The gathered sections are carefully checked as any mistake at this stage, if not rectified, will be difficult to mend later. This checking of the order of signatures is called "collating." High class books are collated before and after sewing and books received for re-binding should be checked as soon as received. Otherwise it will be too late as the customer will refuse to take back a book that has been pulled to pieces. The very important operation of collating should never be omitted. Well printed magazines and books of famous publishers sometimes contain a wrongly placed section, duplicates of the same section or omissions of a particular signature. This only reflects on the efficiency of their binding department.

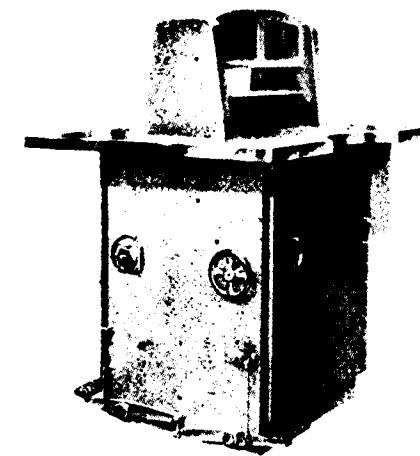
BINDER'S MARKS

In place of signatures other devices are also used. One such is the binder's mark. This is a thick rule or black piece printed at the back margin between the first and last pages of each section. The position of this mark is lowered slightly for every succeeding section. This results in the first section having its mark in a level with the topmost printed line and the last section in a line with the bottommost printed line, with the marks of the intervening sections gradually lowering. When all the sections of the book are gathered correctly, the marks form into an unbroken black step. If wrongly gathered, it is readily detected by a broken step in case of an "out" and two steps at one place in the

case of duplication. The binder's marks afford a quicker method of checking the gathered signatures. For re-binding purposes signatures are more helpful as by that time the binder's marks would have been pasted upon and obliterated beyond recognition.

ROLLING AND PRESSING

A sheet folded does not lie flat and is not convenient for subsequent operations. Hence it undergoes a number of pressings, nippings or rollings. These operations make it solid, compressed and bring the leaves together. Further, a slight felting action takes place resulting in firmness and



Nipping Press

solidity. Pressing should be done carefully. Especially in a heated press there is the danger of ink setting on other sheets which is technically termed "set-off". Hot rolling or hot pressing is quicker but likely to turn the paper grey and spoil the print also. Cold pressing, although takes a little more time, is safer. A screw press is used for this purpose. Rolling machine may also be used to roll the paper through rollers exerting pressure on the same. But only one sheet can be rolled at a time. Rolling is quicker than pressing and does not require much floor

space. Pressing requires careful building up of the work, boards being placed after every three or four sections. Three or four sections may be placed between metal plates and rolled. This gives a result similar to pressing.

SEWING

This is a very important operation in the binding of books. Much care is to be bestowed on the same. The gathered sections are knocked square and kept in a laying press, back outside between boards. Markings are made with a pencil showing the places where the needle should pass during sewing. These markings guide while sewing the sections. Shallow cuts by a saw may also be made for certain kinds of sewing. The life of a book depends upon the sewing. Bad sewing is likely to weaken the binding. The sewing and cover should support one another for a strong binding. This was the case with ancient binders who used stout cords for securing the sections together. These cords stood out at the back forming the raised bands across the back of the book. The modern bindings have hollow backs which separate the sewn sections from the covering material. This class of binding is not so durable. Tape sewing is a method which secures sections together and by means of a lining material they become still strong.

CORD, TAPE AND WHIP

There are three kinds of sewing: Cord sewing, Tape sewing and Oversewing or Overcasting. The last mentioned is for loose leaves which cannot be formed into sections and which do not have a back to sew through. Therefore the loose leaves are cut at the back and glue applied. After drying they are split up into convenient "sections" or leaves and sewn through the sides. This is also

called whip stitching. Books sewn in this manner cannot be rebound unless the back margin is large enough to cut off the old over-casting and sewn afresh.

In Cord Sewing, what is known as flexible binding results. Fine heavy cords are used to form raised bands and a tight back results as the covering material is pasted to the inner sections at the back.

Tape sewing is adopted for library class of binding and for cloth case work. This is economical and at the same time durable. For all Binding that requires a hollow back, sawn-in sewing is necessary as the cords should not protrude over the back, but lie buried beneath its surface. This sewing is adopted for books covered with cheap leather that will not allow pasting with the back and for paper too stiff to allow a tight back.

THE OPERATION OF SEWING

A sewing frame with keys and needles, thread and a few cords complete the requirements for sewing. One or two boards for pressing may also be called for. Sewing materials such as thread, cords, twine, tapes, etc. need careful selection as the strength of sewing depends upon the quality of these materials. Hemp twine is used as a cord. To test whether it is of good quality, the end should be frayed and the fibres should be seen whether they feel soft as otherwise they are no good. Linen tapes without stretching are needed for tape sewing. As regards thread, unbleached flaxen thread can be used, their thickness being dependent upon the sections. The shape of the book and the swelling at the back depend upon the thickness of the thread used. Several grades of sewing thread are available.

Four or five cords are looped at the top of the crossbar and fastened

to keys at the bottom of the sewing frame. The cords are spaced at proper intervals to coincide with the bands marked on the back of sections. The position of the sewing hand is in front of the frame and a little to the left. With the left hand in the middle opening of the first section placed on the bed of the frame, the needle proceeds through the saw-cut from outside and comes out and encircles the cord. At every band it is necessary to draw the thread tight. The pull at the cord while so tightening should be in the direction of the pull and not across, as this will have a tendency to tear the section. The operation is repeated for the second section in the opposite direction. The needle now comes back to the loose end of the first. Each end is secured to the previous section by means of a catch up or "kettle stitch." All the sections that are to form the book are sewn in the above manner. After every five sections they are beaten with a stick to keep down the swelling. Two inches of cord is left on each side and the book is cut off the frame. Sewing is now complete. In the case of tape sewing, the tapes are pinned at the top and kept flat during sewing. The needle proceeds outside the tape without encircling it. This is easier than cord sewing. More than one book may be sewn at a time and later severed.

Tape sewing is similar in other respects to cord sewing. It is not suitable for leather binding as there are no cords to attach to the boards. It requires a French Joint which will be described later. To avoid projections at the back, sawn-in sewing is adopted. The needle passes around the cord without encircling it. This sewing is found to be weak. But there are no projections at the back and a

tight or hollow back may be used. Any kind of sewing may be adopted for every section continuously which is called "sewing all along" or every alternate section can be sewn called "two on." The second method is weaker and adopted for cheap work and such sewing is very weak. Books in which sections are very thin may adopt two-on sewing to reduce swelling at the back. Even in these, the first and last sections are sewn all along.

SEWING MACHINES

Hand sewing is stronger and is adopted for all good class work. But as it is rather slow, machines are used for sewing, especially when one type of books are produced. The gathered sections are fed one section at a time or by means of conveyor belts to an arm. It takes the section inside and sews it on a piece of webbing. Machine sewing is continuous and the books are separated later. Further, in machine sewing a number of smaller independent stitches are made. Adjustments for different sizes of books are thus made by putting out of action a few stitches. But in hand sewing, the thread passes along the back continuously.

The first booksewing machine in the world was invented by David McConnell Smyth in the year 1879. The Smyth Sewing machine named after him is a good sewing machine. Flexible, strong, easily opening flat sections are some of the features of the product of the Smyth book sewing machine. The Brehmer automatic sewing machine sews 90 signatures per minute and the feeding is semi automatic although the sewing is automatic. Plain, staggered or tape sewing can be adopted. Every stitch is tight and uniform as very strong needles and hooks ensure good sewing.

From Our London Correspondent

(Continued from page 16)

competitors, have all led to a greater need for printing. He added "Printing has one quality which these other things have not. *It is permanent. Speak a thing and it is forgotten; print it, and it is preserved.* It can be said of printing that it is here *to preserve the past, portray present, and herald the future*".

WANTED MORE MECHANIZATION

Mechanisation is another subject of the utmost significance to the printing and allied industries. Addressing the Printing, Book-binding and Kindred Trades Overseers Association, Mr. George Wood of Soldans Ltd., stated that the printing industry is under-mechanised, while better use should be made of the mechanisation that exists. He was of the opinion that materials handling was part of mechanisation and must therefore occupy the attention of all firms, large and small. A traditional industry like printing had not had the same opportunity to develop the degree of flexibility which had distinguished some of the newer industries. The craft element was essential to good printing and would remain so, however much the degree of mechanisation grew. In spite of this, however, there existed very powerful incentives to mechanise handling methods. Handling adds to the existing profit margin or enables the price to the customer to be reduced.

Mr. Wood emphasised that all existing methods of handling and routing should be subjected to critical investigation, and also referred to the snags and difficulties, including particularly the human element. The elimination of antiquated equipment and unscientific methods was important,

but it was far more important, to have the loyalty and co-operation of those working in the plant. If the mechanisation under consideration involved a change of occupation for anyone in the works, the first essential was to reorientate those who were going to be displaced. Explaining the purpose of any such changes was a vital part of the whole operation.

NEW FLEXIBLE CONVEYORS

The next snag encountered was uncertainty about the future. The type of work may change, involving new layout and making conveyors and other equipment obsolete. Printers felt that flow techniques were too rigid, they must keep flexible even if the cost was high. In this connection Mr. Wood mentioned that conveyor systems were now available which could be provided to fit one layout and production sequence one week and be adapted to a completely new procedure the next. The answer was said to be unit construction. An assembly of standard components could be reassembled, extended or modified to suit any change in procedure or layout.

Layouts and Lettering

(Continued from page 27)

the way. In memorial stones of the dead (of that period) excellent examples of Roman Calligraphy or lettering, lie around the United Kingdom even to this day.

But it was in A.D. 114, the real basis of the Roman Alphabet as we knew it today appeared. This is the lettering of a tablet over the memorial column, erected in a Forum in Rome by Emperor Trajan (popular as the Trajan Column). This tablet is world famous for the beauty and clarity of its magnificent lettering. These inscriptions run into six lines of matter, the heights of letters ranging from 4 inches to 6 inches. I have drawn below for

the readers a reproduction of the Alphabet as found in the Trajan Column, a forerunner of our Roman Alphabet. English alphabet is fortunate indeed to be based on this famous lettering!

Barton Addresses Budding Printers

(Continued from page 22)

all the materials that go to make a good job should be really first class. If you insist on getting every material of good quality then you can produce good quality printing. In this way you can educate the customer and make him quality conscious—not merely cost conscious."

Mr. Barton answered a few questions of the students before the conclusion of the meeting.

SECTION HEAD

Sri V. K. Sriramulu, Head of Printing Technology, and Vice President of the Association, who presided over the meeting, referred to the speaker's acumen in the printing technique and said that Mr. Barton is a well-known figure in high printing circles. Such a complex subject as Printing Ink has been, he said, dealt with very simply by Mr. Barton. He thanked the speaker for the interesting talk he gave to the students.

Sri K. Sankaranarayanan, Secretary of the Printing Technology Association, proposed a vote of thanks.

VISIT TO PRINTING SECTION

Earlier, the Head of Printing Technology took the visitor round the various sections of the Printing School and introduced the members of the staff of the Regional School of Printing. Mr. Barton showed keen interest in offset plate-making, printing down, and offset machine work which was proceeding during his visit. He expressed his appreciation of the work being done at the various branches of the printing section.

PRESSROOM PROBLEMS

In these pages "GRAPHICUS" an expert in the printing and allied industries solves month by month the Pressroom problems of the printers. All questions may be addressed to: "GRAPHICUS", C/o PRINTINDIA

SOLVED by *Graphicus*

75. Q. I am using a green letterpress ink on Real Art Paper on a cylinder machine with pyramidal inking system, run with full complement of inkers and riders as well as distributors. But I find that the printed matter rubs off after drying. Kindly throw light on the causes and suggest some remedies.
- A. It is advisable when printing on Art Paper and other hard surfaced papers to test the Inks you intend to use on a specimen of the paper first, so as to ensure that it will dry correctly on the run; this can be done on a Proofing Press with the original matter or a flat Tint Block. Where it is found to rub, as described by you in your question, the addition of a quantity of Drier will usually solve the problem; if not it may be necessary to add besides the Drier, a quantity of Stiff Varnish or a good quality Gloss Mixing Varnish in order to properly bind the Pigments on the paper surface.
- 76 Q. We have received an order for 10,000 wrappers to be printed with metallic ink. Would you suggest ready-mixed inks or buy and use dusting metallic powders, considering the extent of the run? Machine to be used is heavy art platen.
- A. I would always prefer the use of Dusting Powders for metallic effects in Gold and Silver. Such colours ready mixed have a tendency to tarnish and discolour in the Vehicle.
77. Q. A flat tint block made of rubber composition is being printed in our works, on a DPE stop cylinder on Imitation Art. Although we have checked impression, inking and block height, the results are spotty and not solid. What shall we do to avoid this mottled effect?
- A. As long as you use a rubber block, I think the trouble you mention will not be cured and I suggest you revert to orthodox Copper or Zinc Plates.
78. Q. Even when we leave the machine idle for 2 hours, say during our lunch recess, it is observed that the ink on the rollers dry. Can you suggest a suitable antidote for this?
- A. The remedy for this rather depends on the Ink you have on the machine at the time. It should be sufficient to run a little mineral oil up on the slab and rollers with the Ink, before shutting down. If this is done, be sure to run off at least 15 to 20 waste sheets on starting up again before proceeding with the job.
79. Q. While cleaning rollers for tri-colour jobs, we find the solvent we are using is unable to remove the entire ink, but has a tendency to leave some remnants, with the result that the latter make their way while printing the next colour. This results in stoppages and consequent loss of working hours. Kindly give us a few names of satisfactory solvents for cleaning rollers.
- A. It would appear from your question that the Forme Rollers are slightly cracked or cut, in which case the previous colour would work its way out of the cracks during the subsequent run. There is very little to be done in this case; the best solvent in the world will not entirely cure the fault. If you cannot use separate rollers for light and dark colours, it will be necessary to run up several times with the Ink to be used on the run, or a similar colour, and wash up the colour until the condition has been minimised.

Printed and Published by V. S. N. Murthi for the Proprietors Messrs. Kubera Enterprises Ltd., at Kubera Printers Ltd., 'Kubera Buildings' 21, Sunkurama Chetty Street, Madras-1. Managing Editor: TEMPORAU

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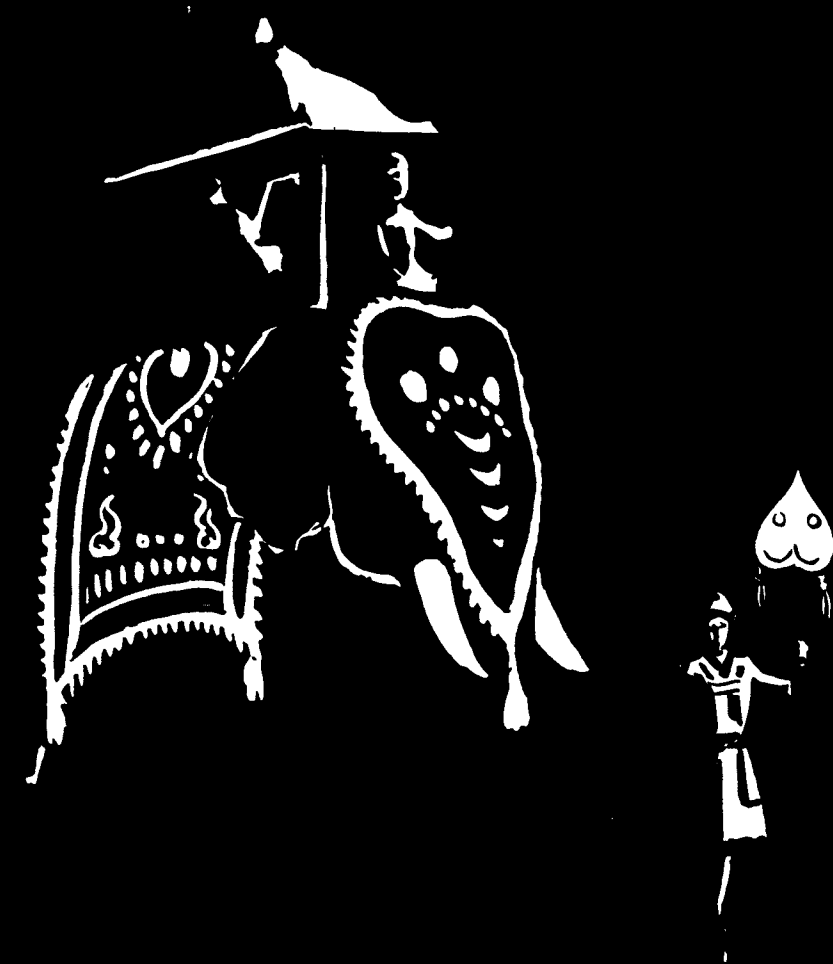
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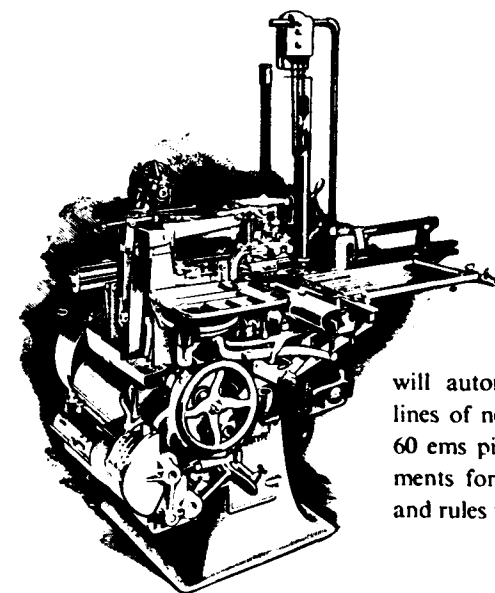
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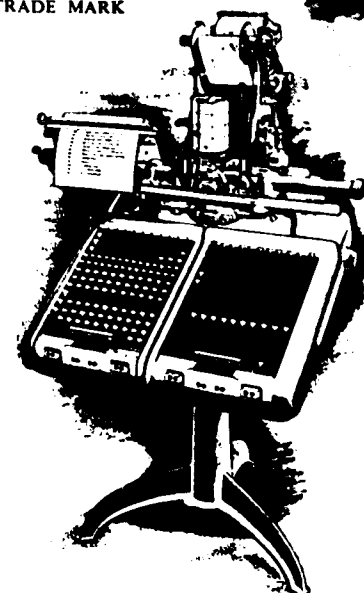
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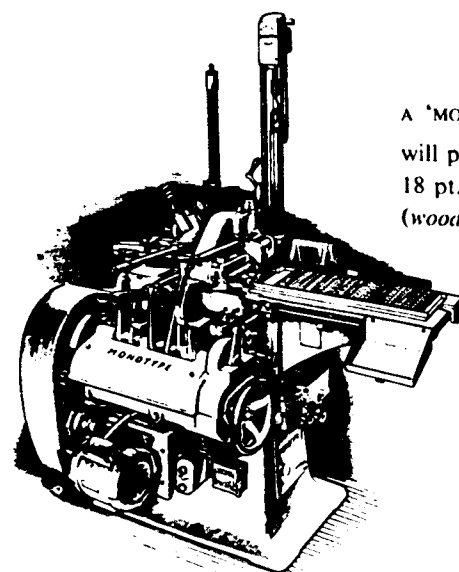


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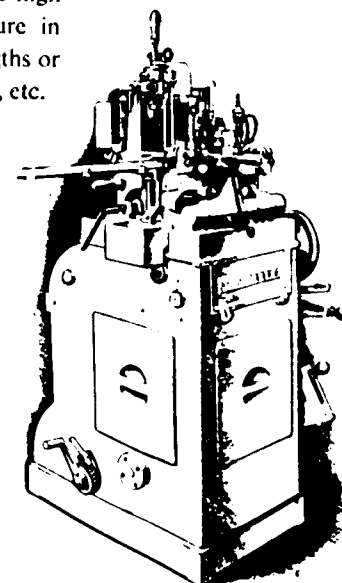
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INDIA	Rs. 10/-
PAKISTAN	Rs. 10/-
Ceylon	Rs. 10/-
BURMA	Rs. 12/-
U. K.	£ 1
U. S. A.	\$ 3

Editorial & Publication Office:
PRINTINDIA

Proprietors
KUBERA ENTERPRISES (Private) Ltd.,
"KUBERA BUILDINGS"
21, Sankarappa Chetty St., Madras-1
INDIA
Grammar: VARUNIDHI Phone: 3000

PRINTINDIA is Published
on the 10th of every month

3-56



Estd. 1953

Printindia

A Monthly Survey of The Graphic Arts Industries, Publishing, etc.

VOL. 6]

JULY 1956

[No. 3

In this issue....

- ★ Standard Rate for Printing Impossible
- ★ Here is Decal
- ★ Layouts and Lettering
- ★ Monotype School
- ★ Words of Power
- ★ Book Binding Craft
- ★ AIFMP Governing Council Meeting
- ★ Paper for Printing and Writing
- ★ From the Editor's Pocket-Book
- ★ The Voice of Type
- ★ Regular Features

From Our London Correspondent
Modern Machinery and Equipment
Pressroom Problems Solved
News & Views etc. etc. etc.

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EDITORIAL

STANDARD RATE FOR PRINTING IMPOSSIBLE

The votaries of private enterprise recognise that there should be competition. But, they want to set a limit to it. Unhealthy competition, they aver, leads to cut-throat rates. Who should help them out of this unfair competition? Of course, the Government! We beg to differ, thanks to the freedom of expression in this country. It will be interesting to analyze the problem of price cutting which no doubt exists in our industry. How is it caused? Is it local or general? To what extent is Govt. responsible for it? Are printers too responsible? How can Govt. force any *private* printer to quote a particular price or *not to charge below a rate*? What is a standard rate? Can rates be standardized for a state, let alone for the whole country? Who is cutting whose throat? The small printer says that he is being elbowed out of the industry by the big brother. On the other hand, the big units complain that the small brother is ruining the industry by underquoting. How can both conflicting statements be true? Still, there they are.

STRUCTURE

Many ills stem from the structure of our industry. Naturally, the industrial structure is part of the nation's economic structure. A stable economy is a pre-requisite for stable prices. Constant shifting of emphasis, frequent tinkering with import-export policies, over-development in one field (say in paper and ink) and under-development in others (say in machinery manufacture and their servicing) result in a lopsided state of affairs. All these flaws cannot be laid at Govt.'s door. Organisation of the industry from within and without, is to a large extent be blamed for the existing state of affairs. A well-knit organization which understands its problems and chalks out its plan as a whole for the industry need not cry for help from the Govt. The Govt. cannot help in this matter. *They can only interfere.* Such interference in the affairs of the small printer, who is often accused of underquoting, will be rightly resented. This will lead to misunderstanding and sow the seeds of discord in the printing community. The years ahead are crucial to our development. We need unity of all

sections and sectors. It is wise therefore to settle this matter of price-cutting internally rather than enlist the help of the state. If it is found that it cannot be solved this way, then there will be time enough to call outside agencies to negotiate.

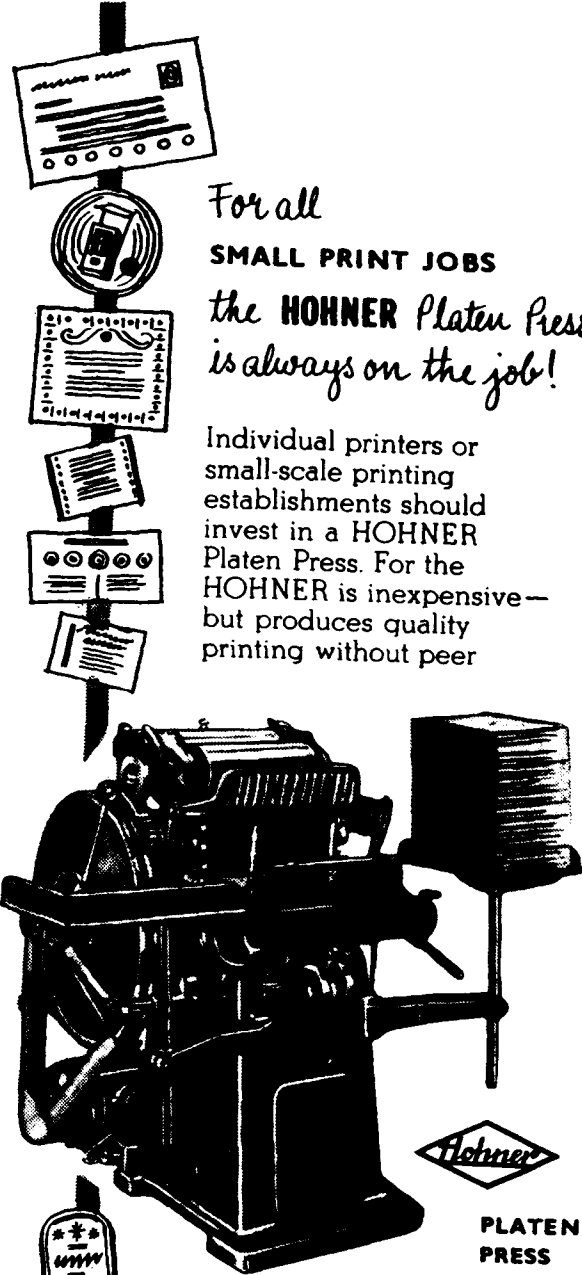
WHY PRICE CUTTING?

Price cutting is not peculiar to India. Nor does it prevail only in the printing industry. Countries which possess a well-organised printing industry also suffer from the baneful effects of price-cutting. It is a fact that rapid technical advance during the past few years has made the printer to produce better quality work and quicker production. But with these advances have also come many management problems. Failure to recognize the management problem and solve it, will put even the largest unit out of business. Accurate business and accounting methods are called for to prevent this catastrophe. This is especially true in the estimating and costing field. The second World War was a golden era for printers, in which a seller's market flourished. The buyer had to run after the seller, *i.e.*, the customer had to cajole the printer into accepting an order, irrespective of the price factor. High quotations were always explained off by a single answer "War and shortage of materials". With the reversal in market trends, competition is rife. The printer who often quotes unrealistically low prices is in addition to being shortsighted, worsening the situation by making the competition stiffer, until many are out of the business before long. The reason for price-cutting is not that there is less demand for printed work than there are printers waiting to meet it. No doubt there is great demand for cheap printing. Also, there is less demand for quality work, which means *properly-priced print*.

As in the motion picture business, the taste of the customer is to a great extent cultivated and moulded by the printer. One who is accustomed to well printed letterheads will never turn to shoddy stuff even at quarter the price. So, it is not possible to eliminate all sub-standard

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printing, but certainly we can increase the volume of good quality printing. In time, no customer will complain about prices, provided the printing is irreproachable. At the present day, the cost-conscious customer questions about price alone and never gives a damn for quality. Printers' organizations can and should change that. Every press can have a good, well displayed showroom in which the pick of their production are kept on view. Therefore price cutting is of our own making. It only lays bare the deep-seated disunity among printers, the blind craze for orders at any price. Low-quoting presses have always many unhealthy features: Low paid workers who actually reap the consequences of price cutting, crowded work-rooms which are no doubt cheap in rents, but are increasing the accident rate, tax evasion, contravention of Factory Laws and a score of other social ills.

UNIFORM RATES NOT POSSIBLE

Printing is not a ready-made manufactured product, but a service that is rendered according to the particular customer's needs. No doubt there are many variables in this. As printer always sells custom-made work, there is no clearance sale for him as in the case of groceries or cloth shops. Unless he wants to clear out of the business, he cannot quote a suicidally low rate. Uniformity in printing rates is not possible due to different local conditions as well as cost of materials, availability of skilled labour, housing shortage, water scarcity, power limitations or other factors. Even within a particular territory prices change from press to press for the same specifications. The reasons are difference in administrative and executive set-up, capital outlay, special services rendered by certain units, advertising and other cost which have to be recovered from the price in the form of overheads, good pay for workers, better machinery, etc. Uniformity in rates presupposes uniformity in wages, uniformity in performance of operations, uniform capital outlay and overhead and other variables. Even in the UK, prices for identical jobs vary as much as 200 per cent. This is not complained by customers there, who appreciate good work and who never grudge to pay the legitimate price. In the conditions existing in our industry today, it is impracticable to dream of uniform rates. The only thing that we can hope for is that these should not go below a minimum. Recently, quotations were received from many printers by a

firm in USA. The prices ranged from the highest to the lowest to such an absurd extent, that the director called in a printing expert and asked a very pertinent question: As these absurdly low prices do not make sense in contrast with the high bids, what costing methods do you printers follow, if any? This question need not be put to any Indian printer. For this simple reason, that his only way of figuring out an estimate is by fixing some arbitrary figure per forme of bookwork, and so many rupees per thousand impressions if it is job work. No other method, if this can be called a method, is followed by our printers. This rule of thumb price quoting has led to disastrous consequences.

GOVT. TENDERS

The acceptance by Govt. for printing certain work which could not be printed in their own presses, at uneconomical (for the printer) rates has come for much criticism. The propriety of a "welfare state" accepting too low a tender is questioned. Firstly, the Govt. Press, its supdt. or the Controller should know how much it costs to do a particular job. (It costs the tax payer quite a lot inside the Govt. Press!) There is no reason why it should cost far less than the reasonable rates. Secondly, is the State not responsible for proper wages to workmen in the industry to ensure which a minimum price on each job is essential? Finally, they should examine as to why the majority of reputable presses refuses to take up Govt. work? How long does it take to get payment from Govt. after delivery of the work? For the printing of

electoral rolls, the Govt. had to persuade many presses to take up the work, as none came forward. Therefore, with a few exceptions, Govt. work is unpalatable and is fraught with difficulties, delays and risks. There is enough private work in the country to go round all the existing units. Besides, a large untapped area remains for every promising printer. Many firms which can well afford to print many of their forms, are satisfied with a typewritten or duplicated substitute. If proper approach is made, these can be turned to good account.

THE ANSWER

No doubt a rate can be fixed arbitrarily by bringing together the interests concerned. That rate cannot by its very nature be real. It will not remain real for long. But the problem of price cutting can be attacked in another angle. The printers should be educated in proper pricing methods. The tiring for every operation which is the basis for all costing or estimating should neither be too low nor too high. This should be determined. No operation however small should be overlooked. Then the customer should be educated. He should be told why it is not possible to offer handsome price reductions for repeat orders, or discounts for continued patronage, unless the price had been artificially boosted in the first instance. *Good printing always costs a certain absolute minimum.* Anyone who prints for less is either cheating the customer by false promises, deceiving the worker of his rightful wages, or the state of its legitimate revenues.

PRINTINDIA ADVERTISEMENT TARIFF

	CASUAL	CONTRACT*
	Rs.	Rs.
FRONT COVER	500	400
BACK COVER	300	200
2nd OR 3rd COVER	200	150
INSIDE FULL PAGE	150	125
HALF PAGE	75	65
COLUMN INCH RATE (per col. inch)	6	5

Blocks of 125 screens are accepted for the inside pages and 150 screens for the covers

* Contract means six or more insertions in one year the space for which is reserved in advance and must be consumed within twelve months from the date of reservation

50 YEARS IN THE SERVICE OF THE PRINTERS

★
A GREAT NAME IN
FINE FINISHED TYPES

★
Manufacturers of
PRINTING TYPES IN 14 LANGUAGES
TAMIL, TELUGU, ENGLISH, GRANTHAM, MALAYALAM, CANA-
RESE, HINDI, SANSKRIT, MARATHI, DEVANAGARI, GUJARATHI,
URUDU, ORIYA & SINHALESE

AND
**HALF-TONE, LINE &
ELECTRO BLOCKS**

★
SUPPLIERS OF PRINTERS' REQUISITES



ESTD. 1906

Grams: BHUVANA

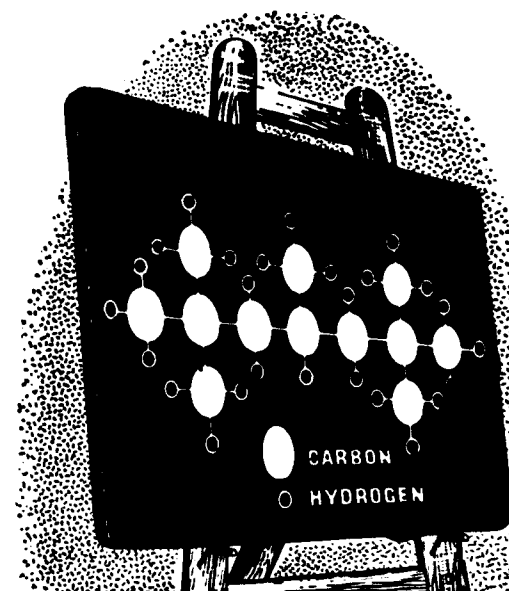
Phone: 8291

SWADESI TYPE FOUNDRY

CHINTADRI PET

::

MADRAS-2



AN EDUCATION IN

Oil



This is not an abstract design in an Art Class. It is one of the chemist's symbols for the structure of hydrocarbons. And hydrocarbons are the most important ingredients in oil—that vital fluid on which India depends so much for the progress of industry, transport and agriculture.

In the Assam Oil Company, chemists, physicists and geologists are engaged all the time on research, helping to find new sources of oil, devising more efficient and more economical methods of refining oil and discovering new uses for oil.

The results of such research mean that more and more of the oil and oil products which are needed for our expanding economy come direct from India's own oilfields.



**ASSAM OIL
COMPANY**

*does
it
all*

AOC's Arresting Advertisement

Thompson get all the credit for this splendid piece of planned publicity.

ATTENTION GETTING BY AOC

The Advertisement of the Assam Oil Co. by D. J. Keymer, London, represents another distinguished series. "Assam Oil Co. does it all" is the slogan. The "all" at the end denotes that the AOC does *all* the various things that have to be accomplished in running an oilfield such as prospecting, drilling and refining, in addition to research and laboratory work not to say of social welfare schemes

like housing, schooling and hospitals for the workers. This particular piece gets off to a flying start with the striking black and white drawing of the blackboard featuring the chemist's symbols and the headline specially positioned to lend special emphasis. "An education in oil" the three words in the beginning in antique caps highlight the last word "oil" rendered in over-size dry brush script.

Read beneath the explanation leading to the importance of Hydro-carbon which is the chemical represented on the blackboard, a vital ingredient in oil. All these lines of text are set in the versatile Times Roman with left flush indentation, in uneven lines. Staggered a bit to left to the text, the reverse lettering of Assam Oil Co. is placed. Below the easel of the blackboard is the trade mark AOC. At the right in Bodoni italic is found the slogan "does it all." The words "Assam Oil Company" in reversed Chisel lettering are uniform throughout this series.

And now to another Walter Thompson piece. The Titaghur Paper Mills Ad. contains headline in Gill Sans Heavy caps "Men who will mould our future." The illustration occupies about two-thirds of the space showing a modernistic interpretation of Art of a scientist at work. Around him is an impressive disarray of test tubes, funnels, beakers and what-not. Text in Venetian roman is unobtrusive and helps to bring the readers' attention. They have used very successfully in a previous series "Planning begins on Paper" in typewriter face. The firm's name, "Titaghur" is in reverse on a deckle edged background, very suggestive of a piece of paper. The line at the bottom attempts to bring notice to an important item, the age of the firm, *i.e.* 74 years in India (a very creditable achievement and all the while growing too). Another striking piece by JWT, of course in a new note.



**MEN WHO WILL
MOULD OUR FUTURE**

Our scientists are the pilots of our destiny... the men who will chart our industrial progress. And in order to provide them with every equipment and facility, 11 National Laboratories were established in the First Plan. In the second Five Year Plan over Rs. 20 crores will be spent on scientific and industrial research.

In the work of our scientists, as in the training of research students in our universities, paper will play an important part. In laboratories all over the country paper will provide the means of computation and instruction.

"planning begins on paper"

Makers of Quality Papers for over 74 years

Titaghur strikes an artistic note

JULY 1956

Here is Decal (Continued from page 8)

earlier on a glycerol coated base. Transfer inks comprise of resin, beeswax, turps, litho varnish and gum in addition to pigment.

PRINTING PROBLEMS

Some of the difficulties that are met with during transfer printing are: set-off, bleeding, incomplete transfer, curling of stock, etc. To prevent set-off, embossing the starch back is suggested. Bleeding on transfer is due to waxes and resins in the ink being very fluid. This can be prevented by using waxes with a higher melting point. Too high a melting point may make transfer difficult.

Registering problem is a very acute one in decalomania printing. Air-conditioned pressrooms are essential for printing these to avoid stretch and register difficulties, especially in multicolour printing.

SPECIAL PAPER

The special paper used for transfer printing is known as "Decalomania Paper" and can be had from any reputable paper dealer, with full particulars as regards its use in printing. This is an absorbent paper manufactured from rag pulp mixed with chemical wood. The cheaper qualities are made entirely of chemical wood pulp. It has a smooth and uniform finish with good fibre formation. Further its wet-strength is great. This quality is very important for transfer papers as the paper base should not give way during the actual process of transferring. Being of a light natural colour, it is generally unsized. The starch solution is called the Decalomania solution.

Two types of finishes are available in Decalomania stock: The first is the simplex or single ply. This is plain absorbent paper coated with the special solution. The duplex or double ply is the one which has a

heavy backing paper. On this is laminated a very high grade thin tissue. On the tissue is given the coating of decal solution. The heavy backing paper is for supporting the tissue on which the printing is made during the process of printing and also while positioning for transfer. Very fine lettering can best be transferred.

TWO-PLY PAPER

The two-ply decalomania paper eliminates curling of stock and prevents dimensional change. Thus it facilitates printing and registering operations. Decalomania paper is available from 50 to 90 lb. Double Royal (25 x 40 inches). The base sheet is a water leaf sheet to help water penetration to release the decal from the transfer paper. On this is given by the paper manufacturer a coating by brush, roll or air blade. This is given on the felt side to reduce curling and to ensure a uniform and smooth surface. The coating is usually of starch, gum arabic; albumen, glycerin and starch; egg albumen, starch and dextrose. After the coating is given, the paper is calendered. Such paper needs careful storing to avoid curling. Curled paper is completely rendered useless either for printing or for transfer. A coating of gelatin is given to the back side to prevent curling.

USAGE

At the present day this process is very widely used in Western countries for transfer on ivory, plastics, window signs, trade marks, trucks and mobile equipment. In the USA the smallest size of print is a fraction of a square inch for state tax seal on cigarette packs. The largest size runs to 1000s of sq. inches for trucks and giant air transport planes. Decalomania is used to decorate any surface that can not be run through the printing press.

CONCLUSION

Decalomania is one or more layers of ink printed to form a design or pictorial representation. This is built on special paper back or cloth back. It is an image in printing ink, lacquer or synthetic enamel forming a homogeneous fibre which slips or slides off the paper when moistened.

The paper is specially coated so as to allow the built-up film of ink or the print to be easily transferred to another surface or object. From 3 to eight colours can be imprinted for transfer.

SANDWICH STRUCTURE

One way is to lay down on paper a film plastic lacquer first. Printing is done on this layer top. After completion of printing, another layer of lacquer is laid on top of it. Thus the print is protected by the sandwich structure which makes it convenient for handling. The slide off transfer type is first floated on water. This separates the print from the paper base. Now the print is applied to the desired surface and transferred.

VARIETIES

There are two kinds of transfer prints. The face-up is printed in the usual way with opaque background last. But for the face-down transfer which is used for windows to be viewed through glass, opaque is printed first followed by various colours. There is a third variety which is capable of being viewed from the front or back of transparent windows.

PRINTINDIA

is available at all

News Agents

and at

Higginbothams Railway stalls

PRINTINDIA

Monotype School

The Monotype Corporation recently opened the new buildings for its school. Distinguished typographers and guests graced the occasion and made it a success. Monotype Corporation School contributes much for printing progress

The opening of the New Monotype School building at 19 Cursitor Street, London, took place on the fifteenth anniversary of that historic night of May 10th, 1941 when the School's original building in Fetter Lane fell victim to the same desperate assault from the air which shattered the House of Commons, a portion of the British Museum, and so many other famous and humble buildings of London. Throughout the intervening years the Monotype Corporation's famous tutorial school for operators has maintained its international reputation, and received students from nearly every country of the civilised world, by a gallant struggle against the handicap of unsuitable temporary premises. The new permanent headquarters, a capacious and scientifically planned building, were inspected with jubilation by the party of over 150 former students and former heads

and instructors who attended the opening party on May 10th.

The Principal Guest of Honour was Mr. William Wigg, who joined the Corporation in 1901 and became the first head of the School in 1911 when the previously separate instruction facilities in keyboard and caster operation were integrated and given the benefit of scientific training methods. "Billy" Wigg, as he is affectionately known to thousands of former students throughout the world, is now in his eighty-fourth year, and his eyesight is seriously impaired: but he left the guests in no doubt as to his vigour of body and mind during his years of retirement. Together with Mr. W. Sterling, former head of the Caster Section, Mr. J. Worth, another former head of the School and Mr. R. C. Elliott, *doyen* of the Corporation's technical experts, he stood for three and a half hours at the



New Monotype Headquarters in Cursitor St., London

centre of an ever changing group of affectionate well-wishers, and was able to identify, in early group photographs, personalities connected with the Corporation's pioneering days at the beginning of the century.

The opening ceremony was performed by Mr. Geoffrey Paulson, who, though the Sales Director of the Monotype Corporation, performed his office simply as an "Old Boy" of the School, and as one who had followed with admiration the devoted work of its staff. The new building, he said, would provide new amenities in keeping with an institution of such character. A special Commons Room had been set aside for the exclusive use of the students where they would have their own library and a specially printed letterhead and selection of illustrated postcards on the writing desk. It had proved impossible to extend invitations to the opening to any but near neighbours and a few old friends, since those alone represented a numerous gathering: but the sheaf of cablegrams, telegrams and letters which he held in his hands, and many others displayed on screens, were evidence of the number of distinguished graduates of the school in other lands who were "present in spirit".

The democratic spirit of craftsmanship marked the whole occasion.



Mr. Paulson, C. W. G. Paulson, Monotype Sales Director and F. J. Holroyde of SLSS, Ltd.

JULY 1956



Students at work in the Library and writing room

The President of the London Master Printers' Association, Mr. H. Knill Jones was present as a former student whose first introduction to the printing trade, after an education directed to a medical career, had been by way of the Monotype School. Mr. Hans Schmoller, one of England's most distinguished typographic designers and in charge

of the typography of Penguin Books Limited, was seen reminiscing with Mr. Wigg about his six month's special course at the School, and personally inscribed to the students' library some of the books of his own design with which his firm has enriched the literature of printing and typography, notably S. H. Steinberg's "Five Hundred Years

of Printing". Another distinguished visitor was Sir Cyril Burt, who cordially autographed for the students' library a copy of his "Psychological Study of Typography" which has been creating such great interest in graphic arts circles.

Mr. P. H. C. Humby, now head of the School, and his faculty of instructors were the diligent hosts at this celebration in which the Corporation as a commercial entity retired to the background in order that proper stress may be placed by human ties of gratitude and friendship which were being so warmly renewed.

Cursitor Street runs eastwards from the historic Chancery Lane, and ends, a stone's throw from Fetter Lane, with an abrupt rubble-strewn excavation remaining from the dramatic days of the buzz bombs. Separated from the destruction area by no more than foot-path, the new Monotype School building rises as a symbol of re-integration and reaffirmation, and as a solid good omen for the future prosperity of the Monotype School.

LUMINOUS PRINTS BY LETTERPRESS

Of late we observe that there is a swing towards luminous printing. The letters glow in the sun or artificial light. In a crowd of ordinary posters, a luminous poster gets the most attention. More publicity material is done by luminous pigments than any other. But, the cost has been high. The time required for printing is long. The operation is mostly by hand. The process chosen is Silk Screen for bringing out these luminous or fluorescent colours. No doubt silk screen process has peculiar advantages over other sister processes for the production of such fluorescent work. A thicker film of ink is transferred and thus it has high intensity of the subject. The background is generally printed by offset.

Now, there is hope to print fluorescent inks by the letterpress process also. It is more economical, quicker and machines can be used. Zinc blocks can be used for the purpose on a large sized letterpress machine which has enough inking power, as a heavy layer of ink has to be laid in a uniform film on the forme. The paper has to be fed at a far slower rate and careful handling is called for to prevent sticking and smudging. This use of letterpress for fluorescent printing, will eventually usher in the era when it can be adopted for newspapers, magazines, theatre programmes, window displays etc. The guiding factor in employing fluorescent lettering or illustration is that they have to be used in a mass with a high contrasty background. Then only they will be effective. It is a fact that letterpress printed luminous prints may not have the intensity of silk screen work, but they will have sufficient glow to be more effective than the ordinary inks. This can be adopted in cases where attention-getting is a vital factor and when the cost looms large.

Words of Power

By

SRI BRIJ MOHAN

Knowledge is power. Words are powerful too when employed properly. Knowledge of words is essential for powerful publicity. Basic rules for their use are discussed in this article

The ancient mode of communication between human beings was by illustrations. Before that, signs and signals served for the purpose of exchange of information. When such signs and symbols were recorded on wood, stone, iron or brass, they formed into heiroglyphics. Even today the basic tools for communication of thought remain the same as before, namely, words and illustrations. For expression of human ideas, there are no other effective substitutes. As printers we are interested in words and illustrations. As businessmen and industrialists we are interested in publicity through the printed word. Therefore, words for us are no time-serving tools as in the hands of the politician for wooing the electorate. Ours is the enduring kind of words, to serve society and humanity.

Any tool can be put to correct use or to improper use (abuse). So also with words. Words too, like tools, can be made ineffective, demented or blunt. To express specific ideas, words are employed. They differ from illustrations which are visualized representations of word combinations. Words have been variously defined as the difference between Man and Beast, the bullets of publicity, used in their thousands in books, booklets, pamphlets, letters and circulars.

In publicity, as in every other sphere, every word involves time and space. Therefore every word counts and should be put to proper use. The publicity man who knows to build words properly will

succeed. In written or spoken communication, words should be well chosen, nicely arranged and effectively issued or delivered. In securing or losing public favour even the name of the firm counts. Thus a clumsily worded title will fail to sell its shares, just as a film star's plain name fails to click at the box office. It is known that many firms have changed their names in line with modernistic conceptions of what constitutes an attractive name. Some names are popular while others are unpopular with the mass mind.

Often a favourite word or phrase is included as a glittering generality, as people cannot resist such epithets. Examples are Democracy, Motherhood, Progress of the nation, Five Year Plan, Socialistic pattern, etc. Almost every one will like good things against bad and this tendency is exploited to the full in publicity campaigns. Testimonials are another form in which some words are put through the mouth of celebrities. People do not stop to think, that an authority in one field (say sports) is not necessarily an authority in another (say cosmetics). The pull of the celebrity is so great that the reader falls easily for it. Thus we see Judges testifying about a play or film, politicians about a lock or a clock, cinema stars about everything sold on earth, etc. etc. Tensing Norkay may approve a brand of watch, Mankad, a kind of hair oil, Meena Kumari a brand of tea or butter, and so on.

Sometimes a famous name is unconsciously linked with an obscure brand of product bearing a similar name. For example "Gemini" films carry much glamour in public esteem. A laundry, betelnut shop, or others may pocket some of this by adopting the name themselves. This will constitute an infringement of registered trade mark regulations elsewhere. In India, the land of tolerant Buddha, it is allowed. The reverse of this process is to employ a common name so as to give the idea that they are the friend of the man in the street. This also pays in these days when the poor man gets a lot of sympathy. The advertiser identifies his product with common people or those of obscure origin who have risen to name and fame.

Presenting only one side of the case, of course supported by facts and figures, is another example of propaganda. In this the other side is completely ignored and never given a chance. The reader is impressed with the (one-sided) argument, rendered so convincing by statistics. Creating an impression that the product is overwhelmingly popular is another form. The reader is made to think in some such way as, when every one is using this soap and deriving benefit, why should I miss it? The mass mentality, or the tendency of the mob to follow the beaten track is made use of in this instance. This mass psychology is fully employed by astute politicians. Every party at the time of elections will make it appear that everyone else has voted for their own candidate and it would be foolish for that particular voter alone to vote differently.

While news reporting requires objective writing, subjective, positive, assertive, opinionated words are called for in advertisements. Thus, a self-judgment is passed on

a product. "Why should millions say it is a good soap? Because, it is used by millions after convincing themselves of its properties." Such questions and judgments form the title of many advertisements.

As a critical reader will begin to pick and choose, the script writer will use flowery language and plenty of rhetoric, to key up his emotion. Once this is done the reader ceases to be a critical being and accepts the verdict in the advertisement. Similes and metaphors, exaggeration, inference and all forms of figures of speech are used in advertising copy-writing. Examples are:—

Tatas is like a giant—Simile.
Bharat Airlines is a meteor—Metaphor.
Sundry Corporation is the largest in the world—Exaggeration.
Let Lily Bulb smile on you—Personification.

Coimbatore is the Manchester of India—Allusion.

Slogans are used with good effect in advertisements. A slogan stays in the reader's mind due to the peculiar grouping of words. "Fill up and Feel the difference", "Take a tip, Take a Tek", "Ask Jacks about it", "Wherever you go, they are good" "In India's life and part of it", are successful slogans. The difference between ordinary phrases and slogans lies in that they are repeated again word for word throughout the campaign. The public develop intimacy with that slogan and always associate the product with it. A slogan is more often used as a headline in the advt. Some good headlines have stayed to become slogans. The requirements for a good slogan are that it should be short, catchy, rhythmic, imaginative, well sounding. People should be able to memorise it easily without much confusion.

English language is flexible enough to allow many substitutes to express the same idea. The publicity man should choose the right word. A lady may be called a female, woman, girl, dame, etc. Similarly a man can be called male, individual, candidate, person, fellow, guy, gentleman, party, client, customer, etc. But the simpler the word, the more effective it is. Powerful words are always simple to pronounce, easy to understand, not difficult to remember, not a thing which breaks your jaw or which has to be looked into a dictionary. Big bombastic words, too many words, high sounding complex things are no good for publicity work. This does not mean that new words should not be used. In fact, it is the publicity world which has given the literary world many newly coined words.

(Continued on page 34)

What the Indian printer wants

is a **GOOD INK**

at a **REASONABLE PRICE**

That's why he buys

G A N G E S

PROVED AND ACCEPTED FOR 29 YEARS

FACTORIES AT: HOWRAH • BOMBAY • MADRAS

All India Federation of Master Writing Governing Council Meeting

At the invitation of the Calcutta Association of Master Printers, a meeting of the Governing Council of the All-India Federation of Master Printers was held at the newly constructed building of the School of Printing Technology, Calcutta, on Saturday the 26th May 1956. Sri H. Ghosh, President of the Federation was in the Chair. Members from Bombay, Madras, Uttar Pradesh, Bihar, Nadia and Calcutta were present.

WELCOME ADDRESS

At the outset, Sri D. N. Dhar, President of the Calcutta Association of Master Printers, welcomed the members on behalf of his Association. Sri Dhar recounted the untiring efforts of the Association for the past twenty years towards the development of the Printing Industry in the state. It is the Calcutta Association that has paved the way towards the establishment of the Regional Printing Schools. The scheme, the Association had framed, serves as the basis of the Printing Schools that are now coming into existence. He hoped that the printers would strengthen their home association and the Federation and would also take the fullest opportunity of the Regional Printing School by not only sending their men for training but also taking in the students coming out of that school as apprentices. He thanked the authorities of the School for lending the use of the School premises to hold the meeting of the Council.

Sri S. Viswanathan, General Secretary of the Federation, then submitted his report.

DELHI EXHIBITION

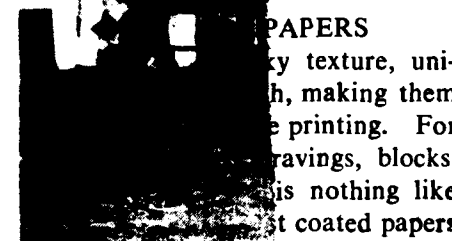
The Governing Council accepted the invitation of the Delhi Printers'

Association to hold of the All India Printing and Exhibition in 1957. The Council in this connection the competition in various graphic arts would only from those who are members of the affiliated associations.

Earlier, in a resolution, the Federation expressed its satisfaction that the President of the Federation had been nominated by the Government, with Sri Ray as the Convenor. The Federation also expressed its satisfaction that the President of the Federation had been nominated by the Government, with Sri Ray as the Convenor.

A committee was appointed to deal with matters relating to export and import of printing materials, Government, with Sri Ray as the Convenor. The committee was also appointed to deal with matters relating to export and import of printing materials, Government, with Sri Ray as the Convenor.

Messrs K. N. Seal, Best printing to a lunch. In the Executive Committee, made from rags, pulp. Envelope made from sulphite, strength to the pulp. Wood, chemical, gives quality of paper, wrapping paper, to the flimsiest.



AIFMP Governing Council

esparto. Sometimes cheap rag pulp is mixed with a little of esparto to give smooth finish. Most offset papers used for multi-colour work are esparto papers. They are well known for their uniform expansion and contraction and maintain accurate register. Further it is easy to water-mark esparto papers, which is an additional advantage. Good tinted stock are also made from esparto.

RAG PAPER

Papers of the highest class, very costly and fine, are made from rag. Filter papers, ledger papers (like the famous Conqueror and Conquest) currency and bank notes are of rag. Durability, resistance, good wear and tear are the reasons for using rag pulp for high class papers. Paper made from rag has two qualities: the colour never fades and the strength of paper never weakens for hundreds of years. New white linen rags are used for thin bank notes. Lightness, strength and durability are imparted to currency notes made from linen rags. New cotton rags are not as durable as new linen, but otherwise equally durable. So much about the furnish or raw material used to produce various qualities of paper. In Punalur mills in Travancore-Cochin State, Etah grass, grown in the forests of the state are used to produce blue match paper and other varieties of paper. In Nepa Mills, Madhya Pradesh, Salai goundwood is used to produce newsprint. Imported chemical wood pulp is mixed with the same.

FINISH

The quality of paper does not depend upon the kind of raw material alone. The finish imparted to it also changes its quality. Thus paper made from the same raw material may be slightly glazed. It is called machine glazed and has a smooth surface. The smooth finish is given by means of cylinders or rolls.

SIZING

Best writing papers and paper used for typewriting should have a hard surface to resist ink penetration. Therefore they are given what is known as "sizing". This is a coating of gelatine size. An unsized paper will have fluff and fibres jutting out like hairs. These will stop the pen from writing smoothly. Sizing glues down all these substances rendering the surface smooth and free to write upon. The coating of gelatine solution that is given to writing papers dries as a thin film on the surface. It is on this gelatine film that the ink we write dries. Due to this, it can, if necessary be erased and re-written. The fibres of the paper or its surface are not affected by such erasure. Paper when erased loses the gelatine coating on top. Hence if re-written with ink, it is likely to make it spread through the fibres. To prevent this such papers are hard engine-sized and finally gelatine sized as a finishing operation.

ADVANTAGES OF SIZING

Sizing makes the surface hard, protects the fibres from atmosphere as oxidising agents will attack only the gelatin layer and not the fibres which lie underneath the sizing. Folding and handling strength is increased. Feel, look through and snappiness are imparted by sizing. Sizing gives the paper toughness. Sizing can be done either by hand, i.e., by dipping sheets in the solution or by endless travelling felt conveyors which take the sheets through the sizing bath and later is dried on cow hair ropes. Tub-Sizing is an operation by which the web of paper from the drying cylinders are passed through a tub of sizing and the web is re-reeled. Tub Sized paper is generally air dried. That is how we get the term "Tub Sized Air Dried (TSAD)". Paper is led by tapes over drums. Fans give the necessary air for drying.

SUPER-CALENDER

Machine finished papers have a certain amount of smoothness and machine glazed papers have a better surface. If further smoothness is required in order to print halftone plates, super-calendering is adopted. Paper is dampened first which softens the fibres. When the web is passed through the calendering rolls, the heat of the rolls and their pressure smoothen the surface. Thus a glaze is given to the paper. Generally the super-calendering rolls are eight or sixteen in number. Iron and paper rollers are mounted alternately. Two top and bottom rolls are of metal, i.e., iron. The iron rolls are heated and the paper rolls prevent charring or blackening of the paper. The iron rolls alone, if used may blacken the paper. Both sides are given equal finish, unless otherwise required. Super-calendered paper is useful for printing good class book work with illustrations. It has none of the undesirable qualities of coated paper such as high gloss, undue weight, etc.

Glazing can also be given by pressing sheets of paper between plates. Copper or zinc plates are used for this. Only very high class paper is given plate-finishing as it is very costly. But the finish so obtained is permanent and very fine. Hand-made papers, high class writing and ledgers are plate-glazed. Permanence, smoothness for writing, silky finish are the qualities that result from plate glazing. Although expensive these cannot be obtained by any other method. Plate-glazing can also give special finishes to paper such as crash finish, antelope finish, linen finish etc. At the present day embossing calender rolls have replaced the time-consuming plate finishing and highly super-calendered paper is sold in the market as "plate glazed."

PRINTINGS

All paper used for printing should have a level surface and should allow printing ink to dry easily. For this reason hard sized writings are unfit for printing, due to their hard surface, which lengthens the drying time and increases the danger of set-off. Similarly, laid and wove papers or those with an artificial grain are not suitable for printing illustrations by letterpress as this requires an absolutely level and smooth surface. The cheapest and most widely used quality of printing paper is the Newsprint. Not only newspapers, cheap magazines and books, but also miscellaneous job work such as handbills, tickets, labels and the like are done on this. Cheapest raw materials are used and practically no special finish is given to newsprint. The great speed at which newsprint is manufactured, the nature of the raw material and other factors make it age quickly losing its colour strength when exposed to the sunlight or atmosphere for a few days. From this it will be seen that newsprint cannot be used for any publication of permanent nature.

MACHINE FINISHED

M.F. or mechanical printings are slightly superior to newsprint. They contain a lesser percentage of mechanical wood, but are equally weak and hence unfit for good class book work. They render themselves fit to be mechanically glazed in which case they will take halftone blocks up to 100 screen. In newsprint only up to 85 line screen halftones can be printed. Finer screens if printed on coarse paper will fill in. Mechanically finished printings are opaque and the danger of show through present in newsprint is not felt here. Machine Finish paper means that the stock has no special finish except that imparted by the paper-making machine.

Super-calender paper is generally made from chemical wood pulp. Plenty of loading substances are added to get the smooth finish. Up to 120 line can be printed on super-calendered papers which are superior to machine finished papers.

POSTER PAPER

Poster paper is as its name implies used for printing on one side for placard work. One side is rough to make the paste adhere. But of late, offset printers have developed a liking for the rough side and generally print on that side in preference to the smooth side. Letterpress printers however continue to use the smooth side which is obviously intended for printing. Labels and calendars are also printed on poster paper. This has a tendency to prevent set-off which risk is present on M.G. and Super-calendered stock.

IMITATION ART

Imitation Art Paper is superior to super-calendered paper. The coating substances such as china clay are mixed with the half stuff to reduce costs of manufacture in making imitation art paper. Generally chemical wood and esparto are used as the raw material. Water-finished imitation art is made by spraying water before passing through the calendering rolls. Fine screen halftones can be printed on imitation art up to 133 lines.

COATED STOCK

Coated papers represent the highest quality of paper used for printing. They are employed for good class magazines, for illustration in tri-colour, show cards, etc. Here too esparto and chemical wood form the base. After the paper comes out of the paper-making machine it is given a coating of a solution. The solution consists of blanc fixe or barium sulphate, kaolin

or china clay, satin white and gelatin or casein. The last mentioned substance serves as an adhesive to hold the coating to the base. After coating the paper is passed through the calendering rolls for imparting a smooth finish. Art paper has some disadvantages such as working difficulties during printing. Picking or plucking results when the coating comes off loose. Drying difficulties cause set off. High gloss creates glare, disturbing easy reading of printed matter. At the present day, the tendency is to have matt art which has no glare. The difference between art or coated paper and imitation art lies in the fact that in the latter coating substances are added to the body of the paper and no coating is given after the paper comes out of the machine. In the case of Art paper, the coating is given after the web comes off the machine.

Chromo art paper is a one-side coated paper used for labels on perfumery, offset printing and other work. Fine screen halftones can be printed on this.

ANTIQUÉ

Antique paper has a rough surface and a bulk disproportionate to its weight. Hence it is also called featherweight. It is used for printing books in order to give the appearance of a large number of pages. It gives fluff and dust during printing and is unsuitable for fine screen blocks due to its rough surface.

WRITINGS

During the school re-opening season the most widely demanded quality is the laid writing paper. If you hold the paper to the light and see through, a white line appears every two inches or so. This mark made by wires on the paper-making machine (i.e. on the dandy roll) is called the laid mark. Paper with a cream colour is called cream laid.

If light blue coloured, it is known by the name "azure laid." When the writing paper has a woven appearance, again due to the wire mesh on the dandy roll, it is called wove. They are used for exercise books, commercial stationery and other writing purposes. Cream laid and wove papers are generally made in Foolscap and Double Foolscap sizes. The weights range from 8 lb. Foolscap to 14.

BOND AND BANK

Good appearance is necessary for letterheads, envelopes, invoices, and other commercial stationery. Bond paper are used for this purpose. It is tough and has a good handling. Tub-sized rag papers are classed as bonds. When bond papers are used for printing letterheads, it is essential to use a stiff hard ink. Then only there will be no drying troubles, as ink on such quality dries by oxidation rather than by penetration. Bond papers are available in Large Post (16½ in. x 21 in.), Medium (18 x 23) and their double sizes. Thinner varieties of bond are called bank. Ledger papers are also made from rag and tub sized. They have a good surface for writing, and are very durable. They do not change colour, nor become brittle when kept for a long time and have good folding and creasing strength. Ledger papers are also used for share certificates, documents, insurance policies, certificates, etc., where the work is partly printed and partly written by hand. These represent the highest quality of writing papers available.

PAPER MARKET

Thumbing through a paper dealer's catalogue, one would find the following classes of paper listed as available:—

Wood-free M.F. Printing, Double Demy, Double Medium and Double Crown from 28 to 36 lb.

Glazed and Super-calender, up to Quad Crown 74 lb.

Imitation Art and Offset paper, up to Quad Crown 120 lb.

Real Art Paper, up to Quad Crown 112 lb.

Cream Laid, up to Double Foolscap 24 lb.

White and Coloured Bond, up to Quad Crown 80 lb.

Air-mail paper, up to Medium 13 lb.

Blotting paper, up to Demy 80 lb.

Drawing paper, up to Imperial 68 lb.

Account Book paper, 28 x 34, up to 61 lb.

Ledger paper, up to Double Medium 64 lb.

Manifolding paper, up to Double Foolscap 10 lb.

Chromo paper, up to Quad Crown 80 lb.

Poster paper, up to Quad Crown 70 lb.

Match paper, Double Crown 17 lb.

Tea paper, Double Crown 48 lb. Manilla, 29 x 44, 60 lb.

Kraft paper rolls, 45 x 100.

Sulphite paper, butter paper, tissue paper, grease-proof paper, Cellophane, tracing paper, flint, leatherette, silver paper, gold and other metallic papers, wax paper, mica coated paper, bitumen saturated paper are other varieties in the market. The manufacturers are the Titaghur, the Bengal, the Sirpur, the Mysore, the Rohtas, the Punalur, the Nepa, Ballarpur and other Indian Mills. Foreign countries which import into India various qualities of paper are Canada, Austria, Scandinavia, Russia, China—Newsprint; U.K., Sweden—Bank, Bond and coated papers. Japan, Germany, Finland, Italy and Holland have also recently entered the field. Wood-free Czech paper and Dutch offset paper are very popular.

SELLING PAPER

Paper is sold by the ream and is charged by the weight. No one buys paper by sheets except perhaps for writing, in small quantities. The printers and stationers buy paper in reams, sold at so much per lb. The weight of a ream is indicated in the label. Thus 24 lb, white printing means a ream of paper of that size, say Double Crown will weigh 24 lb. Boards are priced per gross and their weight indicated per board. Wrapping manillas are sold in reels also, of hundred yards. Newsprint is sold by reels at so many rupees per ton. An experienced warehouseman can tell by looking at a sheet its size and quality and by feeling, he can tell its weight also. Next time you handle a sheet of paper, try to find out, whether it is a writing or a printing, coated or imitation art, bank or ledger, laid or wove.

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From Our London Correspondent

F. & D. BROWNLEE

TIMSON FOUR-COLOUR ROTARY

A complete departure from established rotary principles is represented by the "Wun-Up" multi-purpose variable sized rotary printing press, the latest addition to the wide range of rotary presses made by Timsons of Kettering, London. Designed for the high-speed production of stationery, forms, leaflets, labels and similar articles, this machine incorporates 4-colour printing, numbering, perforating, punching, folding, slitting and gumming at speeds of up to 30,000 an hour.

The main feature of the design is that while the standardised and series-built press provides the basic reel unit and web feed together with four printing units, provision is made in the framing to add, as required, components for sheeting and delivery, re-reeling, folio folding, and zig-zag folding in addition to the processes mentioned. Purchase of these operational parts is optional and they can be acquired at any time. They are easily removable and positioned, are arranged on the outside of the press for simplicity and are grouped to ensure the shortest paper path. The floor space occupied by the complete press is 9'0" x 9'0".

Printing is from rubber plates mounted on small-diameter interchangeable cylinders which determine the work length, the shortest length being 7½" and the greatest 14". Initial costs are reduced and preparatory work minimized by this method, that is using one printing plate only, so that risks of variation in plates are also eliminated. Each cylinder is fully

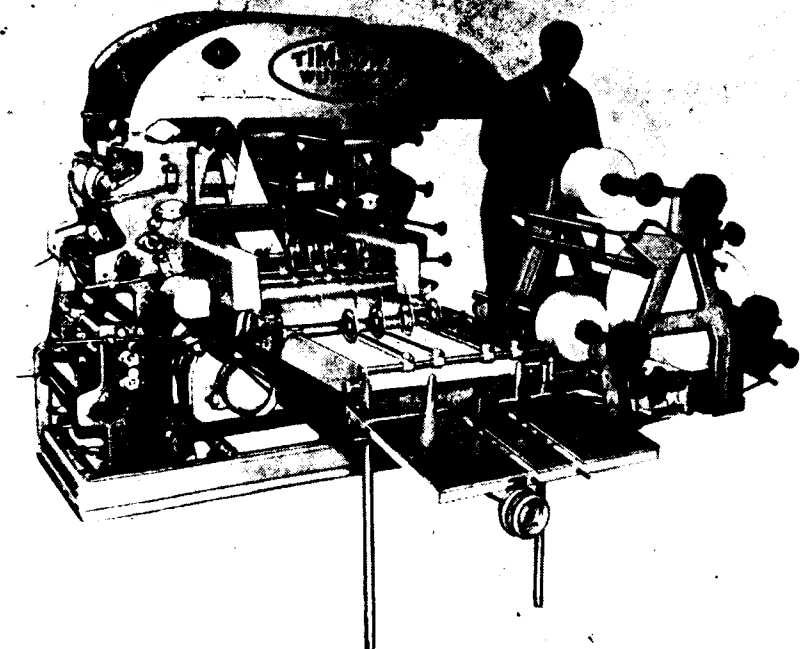
productive and one revolution is equal to one impression or one copy, while two of the printing heads can be reversed to print on front or back at will. Fine register is a special feature and from first to final print less than ten feet of paper is being processed. Ink distribution is excellent, and there are five covered rollers in the main printing units and two in the secondary units. The maximum web width is 20" for roll products and 18" for sheeted work. A second or third reel can be introduced and papers can vary in colour or thickness to cope with duplicate and triplicate stationery work.

No make-ready is done on the impression cylinders which do not change with the changing of the plate cylinders. A proofing machine

is included in the installation so that pre-makeready can be carried out and the plates fixed in position on their own cylinders before being put into the press. Production of smaller size work can be extended far beyond the 30,000 an hour mentioned by machining plates two abreast across the cylinder while work "smaller than minimum" can be printed by using two plates round the cylinder, as for example two 4" plates on an 8" cylinder. The press is driven by a 2½ H. P. variable speed motor, and liberal use of ball-bearings and helical gears ensures freedom from vibration and almost complete absence of noise even at the highest speeds.

BEHAVIOUR OF PROCESS METALS

A recent Report by Patra deals with the effect of process engrav-



The Timson's Wun-up Multi-purpose Rotary Machine

JULY 1956

ing and printing on the hardness of copper, magnesium and zinc process sheet, in which it is stated there is a critical temperature that may be reached during the burning-in stage in blockmaking at which the hardness of copper process sheet decreases by about 50%.

The experiments showed that a 50% decrease in hardness occurred when the copper was heated 90° F. above 660° F., the normal working temperature, but of the three metals examined copper was the least affected as a result of the normal heating received during the burning-in process. Magnesium suffered most, although it remained harder than zinc.

Undertaken at the request of the Technical Committee of the British Federation of Master Printers, the investigation was carried out with the main objective of ascertaining the nature and extent of changes in hardness of the metals caused by processing and printing. A second objective was to see whether any practical advantage could be gained by including hardness limits in standard specification for process metal sheet.

The Report points out that due to the fact that the temperature required to burn-in fish-glue is sufficiently close to the critical temperature, *there should be a routine safeguard to prevent over-heating.* To achieve this, the following are suggested: temperature-controlled burning-in oven, the substitution of fish glues by materials requiring lower burning-in temperatures such as polyvinyl alcohol and cold-top enamels, or paints which change colour when a certain temperature is reached.

The work-hardening experiments showed that all three metals hardened a little when excess printing pressure was applied. It is stated that this increase was not

considered to be of practical significance, "but judgment must be reserved on the possible effect of such higher printing pressures as might be required to bottom 'hard' papers with rough surfaces".

Printing trials were conducted using blocks made in trade houses from copper, zinc and magnesium on Patra's No. 4 Miehle with machine coated paper and black ink. The report gives comparative hardness measurements for the three metals at the following stages: virgin metal, finished block, after 90,000 impressions at normal pressure and after a further 60,000 impressions at increased pressure.

The blocks made in trade houses showed hardness losses consistent with the laboratory results. These losses were greatest with magnesium and smallest with copper. Because of these effects, says the report, it is felt that the incorporation of hardness limits in specifications for process metal would be of little direct assistance to the process engraver except in so far as it would ensure a certain uniformity of material. No actual measurement of the amount of wear was attempted, but the blocks and prints were examined for major defects. At the end of the run slight signs of wear were apparent with zinc and magnesium plates and were just detectable on the copper plate. These effects were not visible in the printed sheets.

NEW HUMIDIFIER

With the object of maintaining relative humidity in machine and store rooms, Price Service & Co. Ltd. of London have recently introduced the Defensor Air Humidifier. It is claimed that by means of this machine many printing troubles are lessened or eliminated, including shrinkage or expansion of paper, static electricity, paper and board creasing and the spread of diseases among workers. Water introduced into the air by the

machine does not settle, so that there is no wetting or corroding action, the water being 'atomised' into invisible particles known as aerosols, each only 0.005" in diameter. These are self-propelling and soon occupy any space into which they are released. It is stated that one humidifier working in a room of 10,000-15,000 c.ft. capacity is sufficient to maintain the ideal relative humidity. Also the machine can be run in conjunction with a hygostat, which turns the humidifier on or off automatically according to the state of relative humidity at any time, and up to eight humidifiers can be run from one hygostat.

SCREEN PROCESS INKS

A development in the field of screen printing is a new range of Kimono screen inks by Fishburn Printing Ink Co. These contain no drying oils such as linseed oil, the action being based on entirely different principles of setting and solvent separation. It is stated the process is so rapid that prints can be handled in 10-15 minutes, and are hard dry in 20-25 minutes in the case of single colours, slightly longer being required for overprinted colours. The drying time can be reduced to only a few seconds with hot air or infra-red heat. The ink readily rewets in the screen and a few strokes of the squeegee, together with a small amount of reducer, will clean the screen even if it has been left inked-up overnight. Good coverage is claimed for these inks, which may be applied in thinner films than conventional types, and they will take substantial reduction without loss of printing quality, the print being very smooth. Flashpoint of the inks is above 95° F., an important point where stringent fire regulations apply, and the odour of the solvent is stated to be mild and unobjectionable.



WHAT COUNTS IN PRODUCTION ?

It is not the number of automatic machines you are having or the number of men on the rolls, or the pay you give them which reflect the production in your press. It is the actual number of *good* impressions turned out from the machine room, number of lines set on the composing machine, number of pages made up in the composing room, that will give you a correct picture as to where you stand. The best equipped office if not well supervised will have to close down soon. In Madras City we have too many examples to forget of what bad supervision will do. But it appears we have not learnt our lessons from these examples. There are instances in our industry, where on the one hand the worker highly skilled in an art is asked to waste his time on an unskilled job, while a semi-skilled or practically unskilled hand struggles on a complex job. So, the problem is to cut short waste: waste of time, material, labour, machinery. The question to ask is: Am I utilizing to the best advantage every machine and material I have? An honest answer will shed light on your firm's future.

COLOUR IN PRINTING

White and black printing has yielded place to colour. Colour pervades in every type of print production, be it a title page of a book, an advertisement, a circular, a letterhead, a label, a price tag or a package. As regards Newspapers and Magazines, colour has increased in enormous proportions. The average reader takes colour for granted in these. If he fails to see colour in a magazine, he is disappointed. But a word of caution is necessary here. Colour printing is attractive only when well produced. Colours, at the outset should be well chosen. It doesn't mean we should take trial pulls of 100 different

shades and waste precious machine time. Whatever is decided should be appropriate and beautiful. After all, colour is introduced to heighten the printed effect. If colour stands in the way of good printing then it is better to print it in black and white. Secondly, colour calls for careful printing, careful handling after printing, good choice of inks, clean working, clean rollers, clean forme and blocks, etc. Those that do not or can not bestow sufficient care should not go in for colour, for that way lies their ruin. Remember *Colour Printing is no substitute for good printing!*

SPECTROPHOTOMETER

Many measuring instruments, testing devices, like densitometer, sensitometer, pH meter, hydrometer, hygrometer, in addition to thermometer, are necessary for the printer. For precise colour control, not even the most experienced can depend on his sense of judgment or memory. No doubt, the potentiality of the human mind is great, but there is nothing precise in such matters as colour strength, colour shades and colour control. For this, an instrument called Spectrophotometer is used. This gives precise and permanent standards for colour control. It is a precision laboratory instrument of much use to the printer. It records and measures colour automatically. It is estimated that a trained human eye can remember many thousands of colour shades and can distinguish them, but there is no accuracy as regards the degree of colour content. In identifying the vastly expanding number of colours, the spectrophotometer is very useful. Not only does it analyse, measure and memorize the particular colour but also records these facts in respect of any colour sample for reference and use. Some offices keep sample prints in colour as a future guide. The colour on these samples change

with time, but the curve recorded by the spm (spectrophotometer) never changes. Thus it is possible to repeat the same original shade or tint even after a hundred years with the help of this record.

CHANGING INKS FOR CHANGING TIMES

Times are changing. Indeed they are changing fast for printers and printing ink manufacturers. Progress in printing is not measured by the invention of fast automatics alone. The printers' materials should also keep pace with them. Thus, paper from Indian Mills are not uniform in thickness, same in quality, dependable in size. Of course the reputed and well established Indian Mills do supply tolerably good paper, although the size and quality we are after may not be available at the time we want and in required quantities! The same applies to printing ink, although in this material, we are not so badly off as in the case of paper and boards. Therefore, we don't mean that the same colour and brand of ink *should change* from tin to tin! In countries where sunlight is no problem, newglo, dayglo, fluorescent, phosphorescent and luminous inks have made a name. In our country, sunlight is sometimes a blessing; at other times it is a problem. The best printed fluorescent poster is washed off in a sudden downpour of unseasonal rain. The inks should change to suit tropical weather conditions especially in the case of posters, window showcards, magazine wrappers, carton and packages, etc. Further, more printed work gets spoiled after printing than during or before printing. This is due to drying difficulties and set-off problems, picking troubles. Even when anti-set off attachments are available on the machine, they are put out of commission either by sheer laziness to look after it or by a mistaken idea that they are not necessary *in this country*. While advanced countries have tackled this problem of ink drying and set-off successfully by inventing sprays, heat-set, cold-set, steam-set and other quick-set inks, we have purposely refused to recognize their advantages.

RESEARCH

Important contributions to printing ink progress are being made by research laboratories of famous ink manufacturers. They have not only a programme of applied research, but also of fundamental research. The latter is the basis without which there wouldn't be much new things to apply in industry, if neglected. The development of new inks have revolutionized the pressroom technique. Letterpress printing and offset lithography have benefited by these improvements. The Interchemical Corporation, USA, have brought out the Vaperin inks.

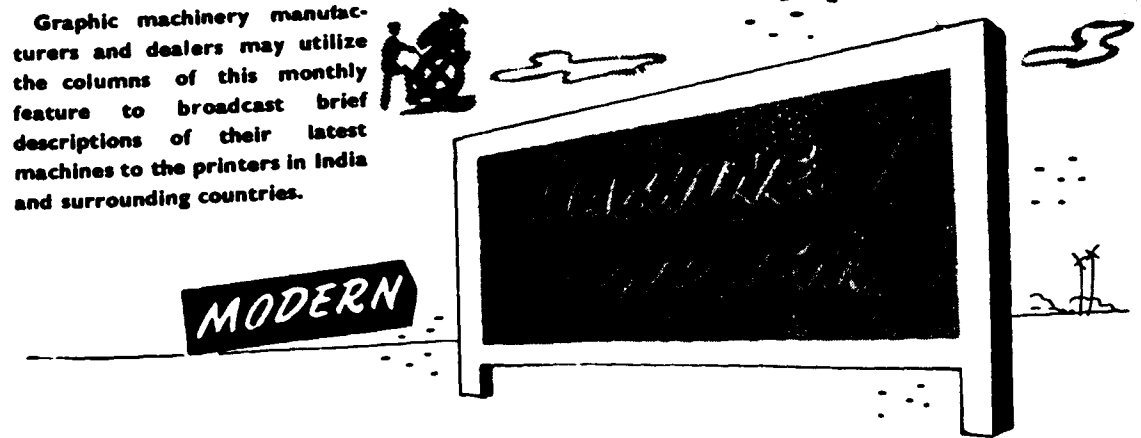
These set on paper in a split second after printing. Highspeed multi-colour magazine printing on fast rotaries and flatbeds have to go in for such inks. There are also the high gloss inks for rubber stereo printing for packages, besides specially manufactured inks to print on cellophane, polyethylene, foil and other non-absorbent surfaces which are apt to rub off the print. A new daylight fluorescent ink for outdoor use shows no colour loss even after 30 days' exposure to summer sunlight. This is a screen process ink useful for posters, buscards, bumper tips, and other publicity pieces to be exposed to sunlight. This is called Sunbonded Dayglo and is available in six colours from Messrs. Switzer Bros. Inc., 4732, St. Clair Ave., Cleveland 3, USA.

The changing needs of printers in this country require high class inks for letterpress, offset and silkscreen printing. The last-mentioned has become the craze of the town, thanks to a pioneering local press which has ventured into this new process with very good results. Others hesitate to take up silkscreen for the simple reason that indigenous ink of such high quality are not available. We hope the ink manufacturers will concentrate all their efforts on the development and improvement of printing inks that will best serve our needs in this part of the globe where some months are *hot* and others are *hotter*!

FORME PROOF PRESS

Many printers do not realize the importance of sending a forme to machine completely OK'd. Any mistakes that are found later will mean machine stoppage. Correction on the machine is more difficult than on stone or frame. All corrections should be attended to before the forme is given over to the machine. Further, the author's approval when necessary should be got before sending the forme to the machine. In this, the Forme Proof Press plays a great part. The imposed and locked-up pages can be put on this and a pull got from it will be exactly the same as one from machine. Margins, block height, bad justification, etc. are to be rectified at this stage than leaving it to be done after the forme has gone to the machine. Such a kind of press is also useful for printing a few copies of large pages or formes or posters, which will be too costly to be put on a machine, considering the small number of copies. But, the tragedy is, even when such presses are available, mistakes are left uncorrected until the machine proof comes. The colossal waste in machine down time and labour is left to be imagined.

Graphic machinery manufacturers and dealers may utilize the columns of this monthly feature to broadcast brief descriptions of their latest machines to the printers in India and surrounding countries.



PLANETA OFFSET

Planeta offset machines have long become a household word with printers the world over. That is particularly true of one of the very early types, the well-known "U" model which, with modifications, has been built year after year. In its essential features it turns up again in the latest Planeta construction, the two colour offset machine type PZO 6, paper size 89 X 126 cm. This in itself proves the soundness of Planeta designing policy which calls for inking rollers exerting appropriate pressure by virtue of their own weight and for upright inking units. Thus the PZO 6 may be described as a machine certain to give highest satisfaction from the point of view of convenient control and economy.

To improve the quality of prints it was necessary to use considerably stronger rollers than in the older models which meant increasing the size of the pins. The result was an enlargement of the

surface of the friction bearings and a corresponding reduction in wear. The cylinder jackets too possess now a higher wall strength which allows for a further increase in compressive stress. The higher cylinder weight has no adverse effect, as this is a case of a uniform revolving motion executed by carefully balanced masses.

The precision gear wheels are fully enclosed, constantly oil-flooded and protected against paper dust. This precaution is taken not only in the case of the cylinder mechanism, but applies equally to the inking and pressing units and to all machine parts used in lateral ink distribution. It combines quiet running and minimum wear with high speed.

Several new features have been added to the swing mechanism where accurate and reliable performance is a factor of considerable importance in connection with lay-mark setting. Apart from a reduction in the weight of moving masses it should be noted that the guide roller system too is encased in an oilsealed box with provision for automatic lubrication. Even distribution of pressure on the guide roller and smooth running is favoured by a balancing mechanism which regulates spring tension. This rules out the possibility of jumps even at top speed and

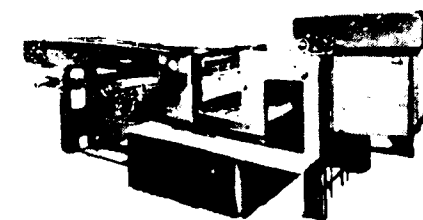
avoids any interference with the swing mechanism or the machine as such.

NEW TWO REV. PRESS

The VEB Buchdruckmaschinenwerk Leipzig has introduced upon the market, an accomplished, up-to-date two-revolution press which presents some noteworthy, technical features.

Increased economic operation is at present called for in every branch of industry, and printing makes no exception to this rule of generally wanted enhancement of production along with higher quality requirements.

Of an impressive outside appearance, the machine, composed of the sheet feeder, the printing press proper, and the sheet delivery, presents the outlines of an undivided unit. Many of the two-revolution presses now upon the market, are deficient precisely in this point of the configuration, so it is easy to discern a certain lack of co-operation on the part of the designers concerned. Its modern shape



Planeta Two-Colour Offset Machine



Polygraph Two-Revolution Press

combines the advantages of easy accessibility, unimpeded survey, and convenient attendance to the press. Progressive, scientific research has assisted in the formation of the robust component parts which, in union with the judicious use of materials, ensure greater impression strength, high speed and long life. The machine minder stands by this press like the captain on his vessel. All control elements have been given an appropriate shape and are located to facilitate attendance, this giving the operator the possibility to control the press without effort, and with a few manipulations. The paper travel as well as the actual printing may be conveniently watched from the same stand.

At the attendance station, there are located the push buttons of the electric control system, the signal lamps, the regulating hand wheel for the running speed, the control lever for the printing pressure, the control lever for the swing grippers, the instruments indicating the production of the machine, and those allowing to watch the compression in the air buffers.

All safety functions are built into the electric control with a view to ensure the greatest possible protection for the attendance staff.

ROLL FEED OFFSET

The widely known and well reputed roll-feed offset press RZO I of the VEB Duckerrimaschinenwerk Universal at Leipzig was demonstrated during Leipzig Spring Fair 1956 on increased working speed with improved printing quality. It was exhibited once more side by side with numerous other machines and new constructions on the stand of DWV Deutsche Waren-Vertriebsgesellschaft m. b. H. Polygraph-Export, Berlin in the Bugra House at Leipzig Gutenberg Square 5/7.

For the true registration of the offset plates, when plating the

machine, there was no helpful arrangement on the old machine, whereas now, the hitherto rigid guard in front of the inlet point between the plate and the blanket cylinders has been given the shape of a rule. This facility for their work is sure to be welcomed by machine minders, and besides does away with a good deal of down-time. A loop provided for at unwinding stand maintains uniform tension of the paper web during the the passage through the inking units. Thanks to this device, a substantial increase was achieved in the uniformity of register, and hence, on account of impressions of a better quality a widened scope of application of the model RZO I opened.

More important yet, however, is the introduction of an overlapping delivery. While so far the delivery was the decisive factor in respect of the limitation of the top speed, it is now the requirements regarding the quality of the printing which represent the speed barrier. The press has grown faster. As against a former output of 6000 sheets an hour, it now stands at approximately 8000 sheets per hour. Let us add, in conclusion, that more than 10,000 sheets an hour have already been printed on the pony web-fed offset press RZO I.

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Letter

TO THE

Editor

CALCUTTA REGIONAL SCHOOL

Sri B. Bhattacharjee, Dhakuria East Road, P. O. Dhakuria, Calcutta, writes on 23rd June 1956 :

"I shall be glad if you please publish the following in your most esteemed paper.

"The building of the school of Printing Technology, Calcutta, was completed long back, but no sign of starting the course yet is seen I understand that it was first decided to start a Degree Course, then, a Diploma Course and at last, only a Certificate Course. All these three arrangements are still in the dark. Boys are still wondering whether they will get any chance at all to get admitted in the Printing School. Because there are concrete examples that efficient boys having first hand knowledge in the Printing trade could not get admission in the school. I also understand that selection of boys are made from a particular group of Printers. Small printing presses have got no chance there. People are also in the dark about the qualifications of Teaching Staff. I understand this also that those who failed to show ability in the Printing Trade have been selected in the Teaching section. I would ask you and could ask the general printers also "the man who could not succeed in the Printing Trade himself, how could he bring the boys to a successful standard?"

News and Views

THIRD ANNUAL REPORT OF THE SOUTH KANARA MASTER PRINTERS' ASSOCIATION

Mangalore
President : Sri M. B. PRABHU,
Mangalore Press.

V. President: Sri B. P. KOOLUR-KAR, The Universal Printers & Publishers Ltd.

Treasurer : Sri G. K. HEGDE,
The City Press, Ltd.

Secretary: Sri V. D. KAMATH,
Sharada Press.

MEETINGS: The major task of the Association this year was the preparation of a common defence at the hearing of the Industrial Tribunal sittings and later at the Labour Appellate Tribunal, Madras in the matter of a dispute between the workers and managements of 16 printing presses in Mangalore.



Sri Kamath addresses the printers

The Industrial Tribunal, Coimbatore passed an award fixing a wage scale and as this was not workable the managements preferred an appeal. The Labour Appellate Tribunal at Madras found the judgment of the lower court not in consonance with the local conditions and therefore remanded the case.

The Association had made an earnest effort last year for opening of a printing technology section in the local Karnataka Polytechnic. Sri B. V. Baliga M.L.A., has taken keen interest in this direction and has discussed this idea with the Hon. Minister for Industries, Madras. We understand the Hon. Minister is sympathetic and has gladly promised all help. The matter has also been discussed with the Principal, Karnataka Polytechnic and we hope the attempts will be fruitful at least by the end of this year.

The Association had circulated a questionnaire to all the printing presses in the District to collect certain statistics of the industry.

PREMISES: The Association proud to inform is that it has this year taken on rent a building to house its office. A small library has been started and is subscribing to many useful technical journals and periodicals. Many members visit the office very often to meet and discuss matters of common interest and it is hoped that all the members as well as non-members will make full use of the same.

THE SECOND ANNIVERSARY was celebrated on 17-7-'55. Sri B. Vaikunta Baliga B.A., B.L., M.L.A., presided. The guests spoke touching the subject of Printing Trade and competition. The president advised the association to open a library and collect books of technical matter and warned about the unhealthy competition in the trade and proposed the opening of a section in Printing Technology in the local Karnataka Polytechnic to train workers as development and progress of the Printing Industry depends much on the proper supply of trained craftsmen. Sri V. D. Kamath proposed a vote of thanks.

VISITORS: Sri C. J. Findelen, Manager, Machinery Department of The East Asiatic Co. (Pr.) Ltd., Madras was entertained to a tea-party in the office of the Association on 22-2-1956. He gave an interesting talk on the modern



Sri V. D. Kamath, Secy., with other Office bearers

techniques in printing. The function was well attended by members and non-members as well.

MEMBERSHIP: The Association had 20 members on its roll at the commencement of the year and it is 17 at the close of the year. A membership drive is contemplated during the ensuing year.

DRUPA 1958

One of the well-known printing machinery importers have been advised by their principals that the DRUPA 1958 will be arranged from 1st to 15th of May 1958. The committee of printing machinery manufacturers and other interested parties within this line, which is arranging the DRUPA, is again this year presided over by the Managing Director of Messrs. Schnellpressenfabrik AG Heidelberg, Mr. H. A. Sternberg.

The opening ceremony of the DRUPA 1958 will take place in the afternoon of the 30th of April in the presence of governmental and industrial representatives.

The following days have been reserved for general visitors:
Thursday, 1st May 1958.



Calcutta Masterprinters Meet the Governing Council Members at Tea

Saturday/Sunday, 3/4th May 1958.

Saturday/Sunday, 10/11th May 1958.

Thursday, 15th May 1958 (Ascension Day).

Thus there are six general visiting days and nine days reserved only for members of the trade.

FAIR GROUNDS

By the time the DRUPA 1958 will commence, a new three-storeyed exhibition hall will be available having a total floor space of about 22,000 Sq. metres (240,000 Sq. ft). The carrying capacity of every storey is approximately 3000 kg/bm and the exhibition hall will be equipped with up-to-date goods, lifts, passenger lifts and escalators.

The fact that this new hall will be erected concentrates the area of the next DRUPA considerably.

The new building will be of great value to the many exhibitors and also give facilities to the visitors which so far have not been found in similar exhibition grounds.

The committee arranging the DRUPA 1958 are expecting a very large number of visitors to attend. In case visitors from India wish

to be absolutely certain of getting necessary hotel accommodation, it would therefore be advisable already now, or at least within the next six months, to book the necessary room in Dusseldorf. The address of the tourist office is: The City of Dusseldorf Tourist Office, Main Station, DUSSELDORF.

FORMATION OF BOOK INDUSTRY COUNCIL ASSURED

Establishment of the Book Industry Council of South India has now become a certainty. The recent Conference of South Indian publishers, book-sellers and distributors, convened by the Southern Languages Book Trust in Madras, unanimously decided that the council should be regarded as established as soon as not less than fifty members of the book industry applied for membership.

The announcement that this minimum requirement has been met and surpassed was made today by the Interim Committee for the Book Industry Council of South India. In fact, already more than one hundred publishers, booksellers and distributors from all parts of South India have applied for membership in the Council. This response of the book industry is greatly encouraging in view of the fact that the necessary minimum number of members had been reached and surpassed within less than three weeks of the conclusion of the Conference and even before the launching of the all-out membership drive which the Committee is planning for this month.

Among the many objectives of the Council is the development of an efficient, up-to-date book distribution system capable of making good books available at

moderate prices to South India's growing number of readers. The Council will also inaugurate a scheme for the consolidation of book despatches expected to save participating publishers, book-sellers and distributors substantial amounts of money. Other objectives of the Council include the compilation of lists of potential readers and the operation of a central addressographing system, issuance of a periodic newsletter covering news of interest to the South Indian book industry etc.

PRINTING MACHINERY MANUFACTURE

The Government of India are contemplating to start a factory for manufacture of letter-press, rotaries and offset rotaries in the

country during the Second Plan period.

The Ministry of Commerce and Industries is understood to have asked for opinions of the printing experts in the country on the question whether it would be economical to start such a factory in India.

Meanwhile, printers and publishers of Allahabad, at a meeting here to-day under the auspices of the Allahabad Press Club, urged the Union Government to locate such a factory at Allahabad—one of the biggest printing centres of India with about 500 printing presses.

A committee with Mr. Bimal Chatterjee, Chief Engineer of the *Amrita Bazar Patrika*, as Techni-

cal Adviser was appointed after the meeting to prepare a scheme for establishing a printing press factory for Allahabad. The scheme will be submitted to the Government of India.

PRINTING SCHOOL FOR BOMBAY

With a view to feeding the printing industry with trained personnel a scheme for the establishment of a Department of printing Technology in Bombay has been sanctioned by the State Government. The proposed school, which will be one of the regional schools in the country, will provide facilities, to begin with, for training 25 students in letter press printing during the first year. Additional courses will be introduced later on.

I AM TOO OLD

In this ancient land, opinion varies as to how long a machine will work. There are some, who think that the older the machine the greater its value! Their explanation of this rather revolutionary philosophy, is that post-war machines are as bad as scrap. Pre-war machines are worth their weight in gold! But a time should come when old machines should be replaced by new ones. How is one to judge that the time has arrived? The first consideration is financial. You can buy a new machine *only* when you can afford. True, but maintaining a sick machine is *more* costly. Nursing a decrepit machine is nerve-racking, besides being unreliable, as it is likely to upset your production schedules. Working on old machines is like travelling in a cart drawn by a dying horse. Any time the cart will stop, and you have to walk. Is your press ready for such a long walk, while your customers are getting impatient?

Considering the high cost of operating obsolete machine units, it is time to modernize your plant. More efficient machinery has come in. When changing to new machine consider the technical suitability, cost saving features, value in greater output of work at less cost. Therefore the financial factor or the cost consideration should always be in the background. Other points to consider are:—

1. Is the present unit worn out? How often has it stopped during the month? How much have you spent for repair and spare parts? How much has it cost you by way of stoppage time? Is the work turned out on it up to the mark? Is it of a modern design? How long has it been working? Did you buy it new or second-hand? What is its present value less depreciation? Is the work turned out by it proportionate to the money spent on its maintenance? Will you not be benefited by a larger size, a faster unit, an improved design?

2. What will it cost to instal a new machine? What are the incidental charges? How long will it take to pay for itself, i.e. to realize the cost of the machine from your business? Is that an unduly long period? Will it effect any saving in space, saving in skilled operator employment, more utility or new type of work for which there is a great demand? Is the machine chosen, a new one, not possessed in the neighbourhood and unique in its advantages? Can you get servicing and spare part facilities? The answers to these questions will prove that you should buy a new machine soon.

Words of Power (Continued from page 16)

Obscurity of language, lengthy verbiage, technical jargon and other distressing things are exclusively used either by the Govt. or similar agencies. In such things, the purpose of language is defeated. The authors of such pieces never realise that words are used as means of communication. It is more important to us as to what the reader will think about it, than the self-glorification of the author. Instructions given in any Govt. Form is impossible to be understood by the common man, apart from the bad printing which increases the impossibility.

The need for the Indian Industry

is to tell its story simply not necessarily directly. In other words advertisements and other publicity matter should be written for general consumption, rather than for the intelligentsia. Clear, precise and understandable copy goes a long way to make publicity effective. It should not stop with being simple, it should be inviting also.

Indian language advertisements are often mere verbatim translations of their English versions and sadly lack the ingredients of good copy. For one thing they are bookish, too literary and impossible to be understood by the average citizen, say, the wage earner, the grocer or the carpenter. For another, what sounds good in

English need not necessarily be good in the Indian language also. A slogan very successful in English will sadly fail to impress in the language version. Now that the swing of publicity material is towards Indian languages, there is a demand for good copy writers, who can produce first class copy.

Before attempting to write copy for publicity, the following things need attention: What is the message you want to deliver? To what audience is it intended? What are the elements to be used, i.e., statistics, etc. If these questions are answered sincerely, then the man will be in a position to produce copy that is effective for that audience for that product through that medium, for that season.

CAUSES OF SPLASH ON LINOTYPE

Is your press having a Linotype or Intertype? Does it often splash? Do you want to avoid such splashes? Splashes are annoying in more ways than one. To begin with, there is delay in production. Then there is the ordeal of cleaning. If cleaning is not thorough, you are inviting another splash. Again, you should find the cause of the splash, unless, of course you want a splash again! There is no single or simple reason for splash of metal on the Linotype or Intertype. But the following are a guide to be on your guard:—

1. Check metal temperature: It shouldn't be too hot or too cold.
2. The metal pot should not be too full of metal.
3. Damaged matrices, injured first elevator jaw, damaged spacebands.
4. The mouthpiece of the machine being warped.
5. Bad adjustment of the mould advancing mechanism with the result that the mould wheel advances too far.

6. Matrix stop not fixed to proper length of line, allowing the matrices to spread or to have play.

7. Improper line justification, with very few spacebands.

8. Lines overset or tight lines.

9. Pot pump stop or short line preventer not working properly.

10. Last matrix of the line twisting out of position due to wrong adjustment of the delivery slide mechanism.

11. Metal sticking to justification levers or other moving parts, springs, etc.

12. Obstruction to movement of First Elevator Slide and Vice Automatic Stop being out of commission.

Next time when there is a splash on your machine, check these points carefully and rectify. You are not likely to have another splash for the same reason. Keeping spacebands graphited and other parts clean is another pre-requisite for splash-free running.

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